

**Spokane Community College** *Established September 1963* 

Spokane Falls Community College Established September 1967

Institute of Extended Learning Established 1983



**CCS MISSION STATEMENT** *Community Colleges of Spokane, colaborating as a district, is committed to providing quality, relevant learning opportunities for students and the six-county regional community we serve.* 

# We fulfill our mission:

- Through our three student-centered institutions — Spokane Community College,Spokane Falls Community College and the Institute for Extended Learning — where outstanding faculty and staff provide comprehensive educational, training andenrichment activities for people of all ages and backgrounds.
- Through a challenging and supportive environment where diverse students, faculty and staff flourish.
- Through collaboration with our colleagues in education and our partners in business and the community.

Information contained in this catalog is true and correct as of date of publication. For the most current version of the catalog go to the CCS catalog website at http://www.ccs.spokane.edu/currentCatalog.aspx.

Person(s) with a disability requiring any auxiliary aids, services or other accommodations should contact the appropriate college at least 30 days before the program. See College Services in the General Information section for more information.

Unless otherwise identified, credit classes offered by the IEL are accred-ited through Spokane Falls Comunity College and follow the curriculum aopted by and standards established by SFCC.

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# **Academic Calendar**

Consult the web class schedule at www.ccs.spokane.edu for a more detailed list of important dates including; registration and financial aid deadlines, tuition payment due dates, new student orientation, and withdrawal and refund dates.



# Fall Quarter 2010

Faculty workdays	September 15, 17
Classes begin	September 20
Holiday	November 11
Faculty workday	November 24
Holiday	November 25–26
Final exams	December 7–9
Faculty workdays	December 10, 13
Winter Break	December 14–January 2

# Winter Quarter 2011

Classes begin	January 3
Holiday	January 17
Holiday	
Final exams	
Faculty workdays	March 24, 25
Spring break	March 28–April 1

# **Spring Quarter 2011**

Classes begin	April 4
Holiday	
Final exams	June 15–17
Faculty workdays	June 20, 21

# Summer Quarter 2011

Classes begin	June 27
Holiday	July 4
Last day of summer quarter	August 19

# Fall Quarter 2011

Faculty workdays	September 19, 20
Classes begin	September 21
Holiday	November 11
Faculty workday	November 23
Holiday	November 24–25
Final exams	December 7–9
Faculty workday	December 12, 13
Winter break	December 14–January 2

# Winter Quarter 2012

Faculty workdays	January 3
Classes begin	January 4
Holiday	January 16
Holiday	February 20
Final exams	March 19–21
Faculty workdays	March 22, 23
Spring break	March 26–30

# **Spring Quarter 2012**

Classes begin	April 2
Holiday	May 28
Final exams	June 18–20
Faculty workdays	 June 21, 22
	, , , , , , , , , , , , , , , , , , ,

# Summer Quarter 2012

Classes beginJuly 2	
HolidayJuly 4	L.M
Last day of summer quarterAugust 24	

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# **Spokane Community College**

# VISION STATEMENT

Spokane Community College is a place where students transform their lives and attain their dreams in an unsurpassed learning environment that is personalized, engaging and affordable.

# Core values

Spokane Community College values

- Student success
- Collaboration
- Mutual respect
- Responsive partnering

**MISSION STATEMENT** At Spokane Community College, we strive to provide our community accessible and affordable educational opportunities responsive to the needs of our diverse population.

# We do this through

- Industry-standard, professional/technical certificate and degree programs
- Liberal arts and professional/technical programs transferable to four-year institutions
- Developmental and continuing education, distance learning and lifelong learning opportunities
- Education programs that emphasize four critical learning abilities: Responsibility, communication, problem-solving and global awareness

As they carry out this mission, our skilled and dedicated faculty, staff and administration continuously support the individual and professional growth of our students and the economic success of our region.

# Your dream is our mission. Seriously.

At Spokane Community College, we take our students—and their dreams—very seriously.

We know the job market is complicated—we respond with certificate and degree programs that give students the technical skills and knowledge they need to perform and excel in today's workplace.

We know education is critical—we respond by creating direct, efficient academic pathways for students who want to transfer to four-year colleges and universities.

SCC has one of the largest career and technical education divisions in Washington, preparing students for jobs in many high-demand career fields in two years or less. We're a center for education in health sciences, aerospace, hospitality, the building trades and much more. AND our humanities and arts and science programs are thriving, preparing hundreds of students for transfer to four-year schools each year.

At SCC, we can prepare you for a high-demand job—or for the demands of university.

509-533-7000 • www.scc.spokane.edu





# **Spokane Falls Community College**

# Students thrive in true educational communities. That's what we believe at Spokane Falls Community College.

That's why, at SFCC, we strive to create an educational community where students pursue excellence in math, science, business, fine arts and music... where future teachers, photographers, designers and other aspiring professionals study with outstanding, committed faculty... and where students can perform, create, explore and discover.

At SFCC, hundreds of our students successfully earn transfer degrees and head off to four-year colleges and universities each year. Others dive into dynamic career/technical programs like interior and graphic design, physical therapist assistant and orthotic-prosthetic technician (And that's just a sampling of what's available!)

And we're a community on the move—from the ground up. Expect state-of-the-art education in state-of-the-art facilities, including a new Science Building and planetarium completed by winter 2011 and spectacular Music Building renovation ready for students fall 2010.

Join our community. We'll help you with what you want to be and where you want to go.

509-533-3500 • www.spokanefalls.edu



# VISION

SFCC is an educational leader and partner with the community and region in providing flexible, responsive programs of the highest quality. Our faculty and staff are dedicated to student success, cultural enrichment and lifelong learning in a student-center environment that encourages personal and professional growth.

# MISSION STATEMENT

SFCC fosters student achievement and scholarship by providing high-quality, affordable and accessible learning opportunities. We accomplish our mission in various ways:

- offering comprehensive academic transfer, professional/technical, developmental, basic skills and continuing education programs;
- *fostering respect for knowledge and actively contributing to scholarship;*
- providing flexible, responsive and innovative educational opportunities;
- promoting excellent instruction and student services through continuous improvement;
- preparing students to live responsibly in an increasingly global civilization;
- serving diverse communities;
- promoting community services of an educational, cultural and recreational nature in concert with community partners; and
- contributing to the economic well-being of the communities we serve.

# Institute for Extended Learning

# OUR MISSION

The Institute for Extended Learning, one of three educational institutions of Community Colleges of Spokane, develops individual potential and enhances economic prosperity of the communities we serve.

In collaboration with our accredited partners, we provide a dynamic and responsive spectrum of education and training programs and services for the benefit of individuals, families, employers and organizations.

The Institute for Extended Learning uses time-tested and innovative educational delivery systems to give students, both urban and rural, access to learning opportunities they otherwise might not have.

# OUR VISION

The Institute for Extended Learning will be:

- A beacon for students of all ages and backgrounds.
- A leader in innovative instruction and services.
- Widely acclaimed and emulated for its dynamic and flexible delivery methods.
- *Renowned for its responsiveness, collaborative partnerships and diversity.*
- An organization that equips and empowers individuals and their communities.

We change lives!

# Simply put, we help people change their lives. Every day. Across a 12,000-mile service area in Eastern Washington.

# And here's how we do it:

With education centers in Pullman, Colville, Newport, Republic, Ione and Inchelium, where students can earn college certificates and degrees.

With literacy, GED, English as a Second Language, High School Completion, and refresher classes in math, English and college transition skills—at easily accessible locations in communities all over Eastern Washington. (We've even got some classes online!)

With programs like Change Point and PACE Services

that give people a leg up as they cope with personal, physical or emotional challenges in their lives.

With affordable lifelong learning classes and seminars for people of all ages— Millenials, Gen Xers, Boomers, Seniors. Have fun. Refresh old skills. Learn new ones. Prepare for a new career. You name it, we've probably got a class for it.

And with Head Start, Early Head Start, ECEAP (Early Childhood Education and Assistance Program) and Parent Education/Cooperative Preschools... programs that focus on the future—your kids.

At the Institute for Extended Learning, we do change lives. How about yours? 509.279.6000 • www.iel.spokane.edu





# **Programs of Study**

For detailed information on length of programs and additional certificates that may be offered within these programs, see the Program Outlines section of this catalog. For detailed information on transfer degrees, see the Transfer Degree Outlines section of this catalog. For the most current program information, refer to iCatalog on the Web at: http://icatalog.ccs.spokane.edu/program/default.aspx

Agriculture, Food & Natural Resources	Education & Training
Spokane Community College	Spokane Falls Community College
Agriculture Business *	Early Childhood Education*
Florist *	Education Paraprofessional, Special Education *
Greenhouse-Nursery *	Health/Fitness Technician
Landscape-Turf *	Library and Information Services *
Natural Resource Management	Finance
Water Resources Technology	Snakana Falle Community Callaga
Architecture & Construction	Credit and Financial Management *
Spokane Community College	Government & Public Administration
Architectural Technology *	Spekene Community College / Spekene Folle Community College
CAD Computer Aided Design and Drafting	Spokane Community College / Spokane Fails Community College
Carpentry and Cabinetry *	Army Reserve Officer's Training Corps (ROTC)
Civil Engineering Technology	Health Science
Electrical Trainee *	Spokane Community College
Heating, Ventilation, Air Conditioning and Refrigeration	Biotechnology
Multi-Occupational Trades (Apprenticeship)	Dental Assisting *
Arts, A/V Technology & Communications	Diagnostic Medical Sonography
Spokane Falls Community College	Emergency Medical Technician (Paramedic)
Art (AFA (FA)	Expanded Function Dental Auxiliary *
Audio Technology *	Health Information Technology
Digital Media Production	Health Unit Coordinator *
Graphic Design *	Invasive Cardiovascular Technology
Interior Design	Legal Nurse
Photography	Massage Therapy
Web Design	Medical Assistant
Business, Management & Administration	Medical Laboratory lechnician in Collaboration
Sackana Community College	W/Wenatchee Valley College
Accounting Accietant/Accounting Clark *	Medical Office Billing and Coding Specialist
Accounting Assistant/Accounting Clerk	Medical Office Receptionist "
Administrative Assistant	Medical Office Specialist
Agriculture Business *	Medical Iranscription
Business Occupations *	Noninvasive Cardiovascular lechnology/Echocardiography
Business Coneral	Outpatient Modical Coder
Certified Professional Secretary	Pharmagy Tachnician *
Chiropractic Assistant	Padialagy Tachnology
Customer Service Representative	Radiology Technology
Front Office Professional *	Surgical Technology
Hotel and Restaurant Management	Vascular Technology
Integrated Business and Entrepreneurship Program *	Vision Care: Vision Care Technology and Vision Care Specialist *
Management *	vision care vision care recimology and vision care opecialist
Marketing	Spokane Falls Community College
Medical Office Specialist	Chemical Dependency Professional Studies
Medical Transcription	Orthotic-Prosthetic Technician
Office Assistant *	Physical Therapist Assistant
Office Clerk *	Social Services
Office Information Systems	Hospitality & Tourism
Paralegal	Spokane Community College
Project Management Certificate *	Baking: Professional Pastries and Specialty Cakes *
Snokane Falls Community College	Culinary Arts
Administrative Secretary	Hotel and Restaurant Management
Administrative/Computer Specialist	Human Services
Business and Software Applications *	Spokane Community College
Business Occupations *	Cosmetology
Business Coneral	Cosmetology Cosmetology Cadet Instructor Program *
Certified Professional Secretary	Esthetician *
Computing-Software Applications *	Manicurist *
Information Processing	Conductor Community College
International Business	Spokane Fails Community College
Management *	Commical Dependency Professional Studies
Office Assistant *	Gerontology Paraprotessional *
Retail Management *	Hearing Instrument Specialist *
Small Business Management	Interpreter Iraining Program
eman zaomeoo management	

# Information Technology

Spokane Community College

Network Design and Administration \* Office Software Specialist Software Development \*

# Spokane Falls Community College

Computer and Network Support \* Computer Forensics/Network Security \* Information Technology Web Design

# Law, Public Safety, Corrections & Security

Spokane Community College

Corrections Criminal Justice Fire Officer Fire Science Technology Legal Administration Legal Administrative Assistant \* Legal Information Processing Legal Nurse Legal Receptionist \* Paralegal Telecommunications Officer \*

#### Spokane Community College

Biomedical Equipment Technician Electrical Maintenance and Automation Electronics Engineering Technician Hydraulic and Pneumatic Automation Technician Machinist/CNC Technology Mechanical Engineering Technology Welding and Fabrication \*

# Spokane Falls Community College Computer and Network Support \*

Marketing, Sales & Service

# Spokane Community College

Management \* Marketing

# Spokane Falls Community College

Fashion Merchandising Management \* Marketing Retail Management \*

# Science, Technology, Engineering & Mathematics

Spokane Community College Civil Engineering Technology Mechanical Engineering Technology Transportation, Distribution & Logistics

# Spokane Community College

Automotive Collision and Refinishing Technician Automotive High Performance Street Rod \* Automotive Technology \* Automotive: Toyota T-TEN Aviation Maintenance Technology \* Diesel/Heavy Duty Equipment Professional Truck Driver Training \*

#### Spokane Falls Community College

Aviation/Airway Science - Articulated Program Transportation and Logistics Management \*

# Transfer Degree Programs / Pre-Majors

#### Spokane Community College / Spokane Falls Community College

Accounting Pre-Major Agriculture Pre-Major (SCC only) Anthropology Pre-Major Army Reserve Officer's Training Corps (ROTC) Art Pre-Major (SFCC only) Aviation/Airway Science (SFCC only) Biological Science Pre-Major Business Administration Pre-Major Chemistry Pre-Major Chiropractic Pre-Major Communication Studies Pre-Major Computer Science Pre-Major (SFCC only) Corrections (SCC only) Criminal Justice (SCC only) Dental Hygiene Pre-Major Dentistry Pre-Major Digital Media Production (SFCC only) Drama Pre-Major (SFCC only) Early Childhood Education (SFCC only) Earth Science Pre-Major Economics Pre-Major Education Pre-Major Engineering Pre-Major (SFCC only) English Pre-Major Fire Science Technology (SCC only) Foreign Language Pre-Major Geography Pre-Major Geology Pre-Major Health, Physical Education and Recreation Pre-Major History Pre-Major Horticulture Pre-Major Interior Design - Transfer Track (SFCC only) International Studies Pre-Major (SFCC only) Journalism Pre-Major (SFCC only) Law Pre-Major Mathematics Pre-Major Medicine Pre-Major Music Pre-Major (SFCC only) Nursing Pre-Major Oceanography Pre-Major Pharmacy Pre-Major Philosophy Pre-Major Physics Pre-Major Political Science Pre-Major Psychology Pre-Major

# TRANSFER DEGREES (see Transfer Degree Outlines for requirements)

Direct Transfer Agreements/Major Related Programs Associate of Arts AA-DTA Associate in Biology DTA/MRP Associate in Business DTA/MRP Associate in Elementary Education DTA/MRP Associate in Mathematics Education DTA Associate in Pre-Nursing DTA/MRP Associate of Science – Transfer

Sociology Pre-Major

Veterinary Medicine Pre-Major

AS-T Track 1 Biological Science, Environmental/Resource Sciences, Chemistry, Geology and Earth Science

- AS-T #1 Biology Education
- AS-T #1 Chemistry Education
- AS-T #1 General Science Education
- AS-T Track 2 Computer Science, Physics and Atmospheric Science
  - AS-T #2 Bioengineering and Chemical pre-Engineering
  - AS-T #2 Computer and Electrical pre-Engineering
  - AS-T #2 Mechanical/Civil/Aeronautical/Industrial pre-Engineering AS-T #2 - Physics Education

#### Associate of Applied Science – Transfer

Associate of Applied Science - Transfer AAS-T

#### Associate of Fine Arts

Associate of Fine Arts AFA

\* This program includes at least one certificate that can be completed in one year or less. This program may also include a degree(s) that requires more than one year to complete. See the Program Outlines section of this catalog for details.

**Note:** Select programs are available through Institute for Extended Learning Centers. IEL centers offer many courses required for liberal arts transfer degrees and professional technical certificates and degrees. Students who enroll in credit programs provided by the IEL receive credit through Spokane Falls Community College or Spokane Community College, which are accredited by the Northwest Commission on Colleges and Universities. Ask for up-to-date information about programs offered by the IEL center in which you plan to enroll.

# **Campus Maps**

# Spokane Community College

1810 N Greene St Spokane WA 99217-5399

# **Building Legend**

	0 0
1	Main
4	P. E. Office Annex
5	Walter S. Johnson Sports Center
6	Lair-Student Center
7	Jenkins Wellness Center
8	Environmental Sciences
9	Health Science
10	Greenhouses
15	Student Services
16	Learning Resources Center
18	Automotive
19	Heavy Equipment
20	Bigfoot Child Care Center
23	Fire Science
24	Fire Tower
27	Science and Mathmatics
50	Max M. Snyder
111	Environmental Sciences Annex
115	Journalism
201	Maintenance and Custodial Offices
408	Portable Classroom
410	Fitness Annex

# **Off-campus**

Apprenticeship and Journeyman Training Center 2110 N Fancher Way Central Receiving 3939 N Freya St Hangar, Felts Field 5317 E Rutter Ave Campus Parking

Campus Parking		\$	Metered Parking	
S	Student	D	Disability	
F	Faculty	Р	Motor Pool	
V	Visitors	R	Reserved	

# **Spokane Falls Community** College 3410 W Fort George Wright Dr

Spokane WA 99224-5288

# Institute for Extended Learning

2917 W Fort George Wright Dr Spokane WA 99224-5202

# **Building Legend**

- Administration 1 Library
- 2 4
- 5 Humanities
- 6 Fine Arts
- 7 Gymnasium and Fitness Center
- 8 Chemistry and Life Sciences 9
- IEL Lodge 10 Maintenance
- Photography 11
- Music Annex/Anthropology 12
- 13 Stadium/Physical Education Complex
- 15
- Music/Performing Arts Human Services/Early Learning Center 16
- 17 Student Union Building (SUB)
- Computing, Mathematics and Science Technical Arts 18
- 19





# **Community Colleges of Spokane Locations**

Adult Education Center Head Start/AEC 2310 N Monroe St

**ECEAP/American Indian Community Center** 801 E Second Ave

Apprenticeship and Journeyman Training Center 2110 N Fancher Way

**Business and Community Training** Esmeralda Center 3939 N Freya St

**Central Services** 3939 N Freya St

**Center Place** Mirabeau Point Park 2426 N Discovery Pl Spokane Valley

**Colville Center** 985 S Elm St Colville

**Curlew Job Corps** 3 Campus St Curlew WA

**District Administration** 501 N Riverpoint Blvd

**Fairchild AFB Center** 4 W Castle St, Ste 108 Fairchild AFB

**Head Start/Bancroft Center** 1025 W Spofford Ave

Head Start/Bethel AME Center 1105 E Newark Ave

Head Start/Early Head Start/ECEAP 3939 N Freya St (Administration)

**Head Start/East Central Community Center** 605 S Lee St

**Head Start/Northeast Community Center** 4001 N Cook St **Head Start/West Central Community Center** 1603 N Belt St

**Head Start/West Plains Community Center** 13120 W 13th St Airway Heights

**Head Start/EHC/Hillyard Center** 4410 N Market St

**Inchelium Center** 14 Community Center Loop Inchelium

**Institute for Extended Learning** SFCC PTA/PTO 2917 W Fort George Wright Dr

**ECEAP/Liberty Park Child Development Center** ECEAP 1417 E Hartson Ave

**Lodge Pace/SEER Services** 3305 W Fort George Wright Dr

**Head Start/Logan School** 1001 E Montgomery Ave Spokane WA

**ECEAP/Martin Luther King Center ECEAP** 845 S Sherman Pl

Newport Center 1204 W 5th St Newport

**North Pend Oreille Center** 208 Blackwell St, Ste 2 Ione

**Head Start/Holmes School** 2600 W Sharp Spokane WA

**Republic Center** 970 S Clark Republic

**SCC Administration** Max M. Snyder Building 2000 N Greene St **Spokane Community College** 1810 N Greene St

**Spokane Falls Community College** 3410 W Fort George Wright Dr

**Spokane Public Schools** Lincoln Heights Elementary School 3322 E 22nd Ave Spokane WA

**Stevens Elementary School** ECEAP 1717 E Sinto Spokane WA

**West Boone Center** Early Head Start 2427 W Boone Ave Spokane WA

**Whitman County Center** 115 NW State St 305A Pullman WA

**ECEAP/YMCA/EWU** 923 Washington St Cheney WA

**ECEAP/YWCA West Plains** 13120 W 13th Ave Airway Heights WA

**ECEAP/YWCA** 930 N Monroe St Spokane WA

**Note:** Head Start/ECEAP/EHS centers also are located in Deer Park, East Valley and Central Valley school districts.

All locations are in Spokane unless noted.

# **Accreditation and Important Notes**

# ACCREDITATION

Washington Community College District 17 (Community Colleges of Spokane) includes Spokane Community College, Spokane Falls Community College and the Institute for Extended Learning. Spokane Community College and Spokane Falls Community College are accredited by the Northwest Commission on Colleges and Universities. Many individual programs also are accredited by additional professional accrediting associations.

Students enrolled in credit programs at the Institute for Extended Learning centers earn their certificates and degrees through SFCC or SCC.

Completion of a certificate or degree program at the Institute for Extended Learning, Spokane Community College or Spokane Falls Community College does not guarantee job placement.

Community Colleges of Spokane (CCS) operates under the jurisdiction of the Washington State Board for Community and Technical Colleges and is a member of the American Association of Community Colleges and the Washington Association of Community and Technical Colleges.

Spokane Community College and Spokane Falls Community College are approved to participate in Federal Title IV, Washington State Financial Aid and Title 38 Veterans Educational Benefit programs. Institute for Extended Learning centers are approved as additional locations through the two colleges for students enrolled in eligible degree or certificate programs.

# ACCEPTABLE USE OF INFORMATION TECHNOLOGY RESOURCES

Community Colleges of Spokane provides information technology resources (IT resources) to support the instructional, support and administrative activities of the district. The IT resources are intended for the sole use of college faculty, staff, students and other authorized users. IT resources include but are not limited to host computer systems, web sites, desktop computers and workstations, communications networks, electronic software, electronic hardware, library automation systems, multi-media equipment, electronic data, computer files, video networks, telephones, voice mail, e-mail, and internet resources. IT resources will be used according to state laws and the policies and procedures of the district and its institutions. Use of CCS IT resources, as state resources, does not confer a right to privacy in those resources. CCS reserves the right to monitor its IT resources and to take appropriate action to protect the integrity of its IT resources in accordance with existing laws, policies and procedures.

Violations of this policy or implementing procedures may subject the user to disciplinary action. (CCS Board Policy 7.30.05)

# EQUAL OPPORTUNITY/NONDISCRIMINATION

CCS complies with all Washington state antidiscrimination laws (RCW-49.60) and the following federal laws relating to equal opportunity: Title VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA).

Community Colleges of Spokane — comprised of Spokane Community College, Spokane Falls Community College and the Institute for Extended Learning — does not discriminate on the basis of race, color, national origin, sex, disability, sexual orientation or age in its programs, activities or employment. The following persons have been designated to handle inquiries regarding nondiscrimination policies.

Vice President	Vice President		
Student and Instructional Services	Student and Administrative Services		
Spokane Community College	Spokane Falls Community College		
1810 N Greene Street	3410 W Fort George Wright Dr		
Spokane WA 99217-5399	Spokane WA 99224-5288		
509-533-7015	509-533-3514		
Dean of Student Services Institute for Extended Learning 2917 W Fort George Wright Dr Spokane WA 99224-5205 509-279-6045	Chief Human Resources Officer Community Colleges of Spokane 501 N Riverpoint Blvd PO Box 6000 MS 1004 Spokane WA 99217-6000 509-434-5037		

CCS has an open door policy. However, most courses and programs have prerequisites and some have limited enrollment and/or waiting lists. Additionally, some have special skill and ability requirements for participation. Information about these requirements is available by calling the appropriate admissions office: SCC, 509-533-8020; SFCC 509-533-3500; and IEL 509-279-6000.

# PROHIBITION AGAINST ALCOHOL AND UNLAWFUL DRUGS

As a recipient of federal grants and aid, Community Colleges of Spokane complies with the federal Drug Free Workplace Act and the Drug Free Schools and Communities Act. These acts prohibit the unlawful possession, use or distribution of controlled substances by students and employees on college property or at college activities, including those that occur off campus.

#### **PUBLIC RECORDS REQUESTS**

The district's public records shall be in the charge and control of the public records officer designated by the district chancellor. The person so designated is the CCS chief financial officer, located in the Riverpoint One Building at 501 N Riverpoint Blvd.

Per WAC 132Q-276, requests to examine public records must be made in writing through the CCS chief financial officer in the Riverpoint One Building. Direct requests to departments will not be honored. The public records request form is available online at www.ccs.spokane.edu. A detailed e-mail request may be accepted in lieu of the form. Once collected, records are normally available for inspection from 8 a.m. to noon and 1 p.m. to 5 p.m. Monday through Friday (with the exception of holidays and a modified summer schedule). Call 509-434-5275 for information.

# SEX OFFENDER ADMISSION POLICY

Individuals convicted of sex or kidnapping offenses are required to self-disclose such status to the chief student services officer prior to admission to SCC, SFCC or the IEL as a condition of enrollment. Failure to comply may be grounds for denial of admission or expulsion from SCC, SFCC or the IEL. (CCS Administrative Procedure 2.30.05-M)

# **STUDENTS WITH DISABILITIES**

In accordance with the mandates of Section 504 of the Rehabilitation Act of 1973-Subpart E and the Americans with Disabilities Act, accommodations for otherwise qualified students with a disability(s) will be considered after receiving a student's request. The student will need to register with the Disability Support Services (DSS) office and provide appropriate documentation of the disability. Once the student has established a file and the disability(s) has been verified by DSS, then the facts of each situation will be thoroughly analyzed and reviewed to determine appropriate reasonable accommodations for classroom, laboratory or clinical settings. Accommodations that would compromise patient care, or fundamentally alter the essential nature of a program or activity are not considered to be reasonable.

A student who is denied an accommodation has the right to request a review of the determination through the defined grievance process available at each institution.

Procedures for student grievance are outlined in the SCC Student Handbook and in the SCC Center for Students with Disabilities Student Handbook. The SFCC Student Resources web site explains the student concerns/complaints process. The IEL Student Services web site explains the services available. A pamphlet is also available at the IEL. For more information, call SCC, 509-533-7169; SFCC, 509-533-4166; IEL Spokane, 509-279-6037; IEL Colville, 509-685-2122; or IEL Pullman Center, 509-332-4003.

# DISCLAIMER

Information in this catalog is intended to provide an overview of the colleges. Academic requirements and procedures necessary for admission and graduation are included.

During the period the general catalog is in circulation, there may be curriculum revisions and program changes, including changes in the quarters in which courses are offered or discontinuation of programs. Students are responsible for consulting the appropriate academic unit or adviser for the most current and specific information. Refer to the online catalog at www.ccs.spokane.edu for the most current information.

All announcements in the catalog are subject to change without notice and do not constitute an agreement between the college and the student.

Limitation of Liability: The total liability of Community Colleges of Spokane for claims arising from a contractual relationship with the student in any way related to classes or programs shall be limited to the tuition and expenses paid by the student to CCS for those classes or programs. In no event shall CCS be liable for any special, indirect, incidental, or consequential damages, including but not limited to loss of earnings or profits.

# Admission

# **ADMISSION REQUIREMENTS**

# GENERAL ADMISSION FOR HIGH SCHOOL GRADUATES, GED CERTIFICATE HOLDERS AND APPLICANTS 18 AND OLDER

Spokane Community College and Spokane Falls Community College have an "open door" admission policy that admits any graduate of a high school or any individual who holds a General Educational Development (GED) certificate. For information regarding international student admission, turn to the "Opportunities for International Students" section of this catalog.

Applicants who do not meet the above requirements, but who are at least 18 years of age, may be granted provisional admission by the college vice president or his/her designee. Admission in such cases is based on an applicant's level of general education as defined by placement test scores that meet the Federal Financial Aid "ability to benefit" option.

Admission is granted on a "first-come, first-served" basis for as many students as the various programs can accommodate. Some programs may require satisfactory completion of certain prerequisites prior to admission or have special selection procedures; so, admission to the college does not guarantee acceptance in every program. Please refer to specific programs of study for further information and be aware that waiting lists do occur for programs in high demand.

It is important to begin the application process well in advance of the quarter for which admission is desired to allow time for application processing. Each college has slightly different admission procedures and registration schedules. For more information or to request an application packet, please call, write, or e-mail the college directly.

# **SPECIAL ADMISSIONS FOR STUDENTS UNDER AGE 18**

Applicants between 16 and 18 may be admitted to a college if they are deemed able to benefit from the college's curricular offerings. Enrollment is limited to college-level courses numbered 100 or above. (This limitation does not apply to high school graduates or GED certificate holders.) In order to determine a student's readiness for college-level courses, the student will be required to take a placement test which is administered at the colleges. Generally, a student must place at the college level in both reading and writing in order to be eligible for courses other than mathematics. To take mathematics courses the student must place at the college level in mathematics. Admission may be to individual courses or to a program as determined by admissions officials.

This policy is intended to expand opportunities for younger, qualified students who may not be enrolled in Running Start or other local student enrollment option programs. For currently enrolled high school applicants a release form for attendance at CCS that identifies approved credit classes and is signed by the student's high school principal must be submitted quarterly. The intent of this policy is not to replace or duplicate the functions of local public schools.

# **ADMISSION PROCEDURES**

Students may enter college at the beginning of any quarter (summer, fall, winter or spring). However, students should be aware that some programs of study may offer admission only during specific quarters. Please refer to individual programs of study for further information.

To apply for admission, the following should be on file in the Admissions Office of the college a student plans to attend:

- State of Washington Community College Application for Admission Form (obtained from a high school counselor, Admissions Office, or the college web site),
- Official transcripts from other colleges are not required for admission, but may prove beneficial for purposes of general advising, verifying successful completion of intermediate-level algebra and English composition, and verifying courses that may fulfill prerequisites for other courses and/or programs at the college to which a student applies. Official transcripts can be used to document courses the student wishes to use toward graduation. Therefore, students are strongly encouraged to submit official transcripts from all colleges with their applications.

Running Start students applying to SFCC are required to submit high school transcripts.

# WASHINGTON STATE COMMUNITY COLLEGE ADMIS-SIONS POLICY

In accordance with WAC 131-12-010, any applicant for admission to Washington State Community College District 17 shall be admitted when, as determined by the chief administrative officer or his/her designee, such applicant: is competent to profit from the curricular offerings of the college; would not, by his or her presence or conduct, create a disruptive atmosphere within the college inconsistent with the purposes of the institution; is 18 years of age or older; is a high school graduate; or has completed a GED; or has applied for admission under the provisions of a student enrollment options program such as Running Start or a successor program, or other local student enrollment options program.

Those students ages 16 through 18 who meet the provision of Title III— Adult Education Programs may enroll in certain adult basic education classes with a release from the common school district. Individuals admitted into such classes will be allowed to continue as long as they are able to demonstrate measurable academic progress.

District 17 does not desire to replace or duplicate the functions of the local public schools; however, persons may appeal for special admission on a course-by-course basis. Approval for granting an appeal is made by the college vice president or his/her designee.

# **ASSESSMENT AND PLACEMENT TESTING**

While students attend college for a variety of reasons, most attend for the purpose of acquiring the knowledge and skills needed as preparation for entering a particular field of work or to complete the first two years of a four-year degree.

With this in mind, new and returning college students who have not been tested or advised by SCC or SFCC within the last three years will participate in an assessment program designed to assist in the selection of classes for proper placement and college success.

The assessment process includes an evaluation for the purpose of determining current skill levels in reading, writing and mathematics. For those who have not taken ASSET or COMPASS, the college will administer one of these tests and a \$20 fee will be charged. Students who have taken either of these tests within the last three years and wish to use those scores must have their scores on file prior to registration. Some career and technical programs use test scores as criteria for admission.

# **GUIDELINES FOR PLACEMENT/ASSESSMENT**

Math (at SFCC MyMath or MPT-G, at SCC ALEKS) and/or English assessment (COMPASS or ASSET) is required for:

- 1. Students who have never tested.
- 2. Students who have test scores that are more than three years old.

3. Students who have math credits that are more than three years old. For more details, call the SCC Testing Center, 509-533-7074; the SFCC New Student Entry Center, 509-533-3401; or IEL, 509-276-6709. Math and/or English assessment is not required for:

- 1. Students who have taken the COMPASS or ASSET within the last three years. CCS also accepts Academic Placement Testing Program (APTP) math scores from Washington public universities.
- 2. Students who have received a grade of 2.0 or better in college composition or mathematics classes from other institutions. Additionally, college transcripts must be on file to support this exception.
- 3. Students taking fewer than 10 credits, not enrolling in composition or mathematics classes and not pursuing a degree or certificate.
- 4. Students who are pursuing a Vocational Technical Program not requiring a Math class. (SFCC)
- 5. Students who took Pre-Calculus in high school and earned an A or B for two semesters. A high school transcript is required for verification and must be within one year of graduation. (SFCC)

# **SPECIAL SITUATIONS**

Students with questions regarding credits for Advanced Placement (AP) test scores should refer to the Advanced Placement Program section in this catalog.

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# GUIDELINES FOR PLACEMENT OF ENGLISH SPEAKERS OF OTHER LANGUAGES (ESOL)\*

- 1. Students currently enrolled in the IEL program English Speakers of Other Languages (ESOL) must satisfactorily complete a Level 6 English program before being permitted to enroll in courses at SCC or SFCC. A SLEP (Secondary Level English Proficiency) score of at least 50 is required to qualify for admissions. Placement in courses will be based on ASSET or COMPASS scores.
- 2. For ESOL students not currently enrolled in the IEL Level 6 English program, the placement guidelines are:
  - All students who call to schedule an assessment test will be advised of the placement tests for native and non-native speakers of English and will be scheduled accordingly.
  - When English is not the students first language (as self-identified), the student will be required to take the SLEP test before being eligible for admissions. Placement in courses will be based on ASSET or COMPASS scores.
  - Students scoring below 50 on the SLEP may reapply to take the SLEP upon completion of a Level 6 program and with the recommendation of their ESL instructor.

\*Exceptions to these guidelines must be approved by the vice president of learning or designee at SFCC or the IEL, or the vice president of student and instructional services or designee at SCC, whichever is applicable.

# **GED TESTING**

Persons interested in obtaining a General Educational Development (GED) certificate may schedule a GED test by calling 509-279-6200. Proof of age is required. Testing sites, schedules and further information may be obtained by calling 509-279-6000.

SCC and SFCC provide additional services in vocational achievement, guidance and interest survey testing for those who want or need help, individual information or evaluation. For more information, refer to the Counseling and Special Services section of this catalog.

Students can take classes to help prepare them for the GED test at several locations in Spokane, as well as rural sites. For more information, call 509-533-4600.

# **DUAL CREDIT PROGRAMS**

# **RUNNING START**

The Running Start program offered through CCS enables eligible high school students to seek expanded educational challenges. They may enroll simultaneously in high school and college classes, or solely in college classes, for the purpose of earning credit to be awarded both by the high school and by the college. Classes taken at SCC, SFCC or IEL as part of the Running Start program are limited to "college-level classes" numbered 100 or above and up to a total of 18 credits per quarter. Summer session is not covered under Running Start.

The tuition and fees of classes not covered under the Running Start program (over 18 credits or under 100-level classes) will be calculated at "resident" rate and paid by the student. High school students who have lived in Washington State less than 12 months are eligible for resident status as a Running Start student. Running Start students who lack a residency status may be required to complete the Residency Questionnaire Form at the end of their tenure as a Running Start student. Depending on the answers, their post-Running Start residency status would be determined and their tuition would be calculated on that residency status: resident, nonresident or nonresident with waiver.

Exempt from having to pay tuition, Running Start students shall pay all other mandatory fees unless eligible for a fee waiver that began fall quarter 2009. A Verification of Eligibility letter for free or reduced-price lunches in the last five years is the required documentation to receive a fee waiver.

For more information, contact a high school counselor or the college counseling center: SCC, 509-533-8062; SFCC, 509-533-3524; or IEL in Colville, 509-685-2120 or 509-279-6710; Newport, 509-447-3835; or Pullman, 509-332-2706.

# **TECH PREP**

Tech Prep allows high school students to earn college credit toward career and professional certificates and degrees without ever leaving high school. Through articulation agreements between the high school and SCC or SFCC, students who register in and complete designated high school courses with a B grade (3.0) or better and meet required competencies receive college credit at the same time they are completing their high school graduation requirements. To be eligible for credit,

students must be currently enrolled in the high school class as credit is not awarded retroactively. To register for credit, contact your high school teacher.

Funds from the Carl D. Perkins Act support this program to help high school students make the transition into post secondary education, save on college tuition and fees, gain occupation skills and work-related experience, and train for demand careers. A complete list of eligible high school classes can be found at http://sers.techprepwa.org/searchArticulations.aspx. For more information, call 509-434-5164.

# **PHYSICAL EXAMINATIONS**

Physical examinations are required of students entering some college programs. Health appraisals generally are valid within a six-month period prior to acceptance and enrollment at the college and for the two years following.

# **Tuition and Fees**

The State Board for Community and Technical Colleges sets tuition rates for Washington state community colleges. For current information regarding tuition, fees and waivers go to http://icatalog.ccs.spokane. edu/fees.pdf, or contact the District Business Office at 509-434-5275 if you need a printed copy.

# INSURANCE

Optional student accident insurance or combined accident and health insurance coverage for the student or the student and dependents may be purchased from the college cashier. For current coverage and cost, call the Cashier's Office at: SCC 509-533-7025, SFCC 509-533-3569 or IEL 509-279-6005.

# **Student Classifications**

# RESIDENT AND NONRESIDENT STUDENT CLASSIFICATIONS

To be classified as a resident for tuition and fee purposes, a student must be either (1) financially independent and have established a bona fide domicile in the state of Washington for other than primarily educational purposes for one year immediately prior to the first day of the academic quarter, or (2) financially dependent and have one or both parents domiciled in the State of Washington for a period of one year immediately prior to the first day of the academic quarter. All other students are classified as nonresidents and will qualify for the nonresident with waiver tuition if a U.S. citizen or permanent resident alien.

Students are solely responsible for requesting information about documentation required to establish residency. To obtain information or to submit an application for a change of residency, contact the secretary to the registrar at SCC or the assistant to the dean for student services at SFCC. It is the student's responsibility to initiate the paperwork for change of residency request.

A student's domicile is the true, fixed and permanent home and place of habitation where he or she intends to remain, and to which he or she expects to return when leaving without intending to establish a new domicile elsewhere. A student claiming to be domiciled in the state of Washington must prove that fact to the satisfaction of the college. Among the factors evidencing a domicile in this state are registration and payment of taxes and fees on a motor vehicle or other property where registration is required, a valid Washington driver's license, permanent full-time employment in the state, evidence of physical residence in the state, voter registration in Washington and evidence of banking in this state. No one factor is conclusive and other factors may be considered.

Students may apply for a change in classification up to the 30th calendar day of the quarter in which the change is sought. Applications should be made at the Registrar's Office at SCC or SFCC.

This is not an exhaustive discussion of residency, it is provided to inform students of the basic rules. Staff is available to answer questions in the SCC Registrar's Office or in the SFCC Dean of Enrollment Services and Student Development Office.

Effective July 1, 2003, Washington state has changed the definition of "resident student." The law makes certain students, who are not permanent residents or citizens of the U.S., eligible for resident student status and eligible to pay resident tuition rates when they attend public colleges and universities in this state. The law does not make these students eligible to receive need-based state or federal financial aid. To qualify for resident status, students must complete an affidavit/declaration/ certification if they are not permanent residents or citizens of the U.S. but have met one of the following conditions:

Condition One: (a) Resided in Washington state for three years immediately prior to receiving a high school diploma, and (b) completed the full senior year at a Washington high school, and (c) continuously resided in the state since earning the high school diploma.

Condition Two: (a) Complete the equivalent of a high school diploma, and (b) resided in Washington state for the three years immediately before receiving the equivalent of the diploma, and (c) continuously resided in the state since earning the equivalent of a high school diploma.

If you meet one of the above conditions and would like to pay resident tuition rates, contact the registrar's office at the colleges to which you are applying to attend and request a copy of the HB 1079 Affidavit.

# FINANCIAL OBLIGATION

Community Colleges of Spokane is authorized to place an "administrative hold" on the records of any student who fails to return property or promptly pay any financial obligation due the college.

Until a hold is officially cleared SCC, SFCC or IEL:

- will not release the student's records or any information based upon the record.
- will not release transcripts.
- denies registration for a subsequent quarter, as well as graduation from the college.

Failure to make payment for class-related tuition or fee charges may result in disenrollment from classes.

# **SENIOR CITIZEN WAIVERS**

Community Colleges of Spokane may grant tuition waivers for statesupport college classes to resident senior citizens who are at least 60 years old. A fee of \$2.50 per class (with a maximum of two classes for \$5) will be charged. Class fees and parking are additional. This waiver does not apply to noncredit classes. Registration must be made in person and will only be accepted on or after the third day of the quarter on a space-available basis. Course may be taken for AUDIT ONLY, not college credit. Senior citizens interested in this waiver will not be allowed to create a space by initially enrolling and paying regular tuition and course fees and then withdrawing in order to participate in the waiver program. For information, call SCC, 509-533-8006; SFCC, 509-533-3510; or IEL, 509-279-6712.

# **IEL SENIORS PROGRAM**

Call the Seniors Program Office, 509-279-6027, to receive the program brochure and further information about scholarships, additional classes, and senior citizen waivers for on-campus credit classes. To register with payment by credit card, call 509-279-6030 or go to our web site at www. ccs.spokane.edu/ContinuingEd.

# STATE-SUPPORT CREDIT AND NONCREDIT COURSES REFUND POLICY

Students who withdraw in accordance with regulations may apply for refunds according to the following schedule:

- 100 percent refund for classes/programs canceled by the college.
- No refund after the 20th calendar day of the quarter.

Refer to the quarterly class schedule for the current refund information. This schedule prevails whether the student attends class or not.

Refunds for classes that do not follow the regular academic calendar are applied on a timetable (as established above) in a proportionate relationship to the standard length of a quarter. Refunds for lab and course fees will be in proportion to the regular tuition refund schedule.

# **REDUCTION IN CREDIT HOURS**

A refund of tuition and fees may be made if a student's credit hour load is reduced.

Lab and course fees will be refunded at either 100 percent or 50 percent if the class is dropped during one of those designated refund periods; otherwise, no refund will be processed.

# **PROCESS FOR OBTAINING A REFUND**

- To obtain a refund, the student must complete and turn in to the registration office an official withdrawal or add/drop form by the refund dates published in that quarter's class schedule.
- The refund check will be mailed to the student or credited to the bankcard used within two weeks from the date the CCS district business office receives the withdrawal form or the add/drop form.

A \$7 processing fee will be deducted from the refund amount.

- 3. Debts owed to the college must be paid in full before the refund is issued.
- 4. Tuition and fees paid by an agency, such as scholarship, financial aid or private grant, are refunded to the appropriate account.
- 5. Students dismissed for disciplinary reasons are not eligible for a refund.

# **EXCEPTIONS TO THE REFUND POLICY**

Exceptions to the refund policy will be considered only if, in the judgment of the institution, an extreme hardship exists, such as by illness, hospitalization or military transfer. A student must submit an appeal for an exception to the refund policy in the form of written documentation to the dean of student services at SCC, SFCC or IEL before a refund may be considered.

All course offerings are subject to change. The college cannot guarantee class offerings, designated times or specific instructors, because funding levels and student interest may affect whether or not an offering is available.

# **Financial Aid**

Many students who want to attend CCS need financial assistance to meet college costs. Grant assistance for eligible students is available through the Federal Pell Grant, Washington State Need Grant and State Institutional Grant programs. A number of tuition waiver programs exist for individuals meeting specific criteria. There are employment opportunities through federal, state and institutional work-study employment programs. Students may apply for Ford Federal Direct Loans (need or non-need based) and the Parent Loan (PLUS) through the Financial Aid Office.

To be considered for federal, state or institutional student financial aid, individuals must complete the Free Application for Federal Student Aid (FAFSA). Students must reapply each year. Applications may be filed after January 1 of each year for the following academic year. Students are encouraged to complete the application at www.fafsa.ed.gov.

Applicants seeking further information and deadline dates should contact the Financial Aid Office at one of the colleges or visit the college financial aid web site: www.scc.spokane.edu, www.spokanefalls. edu or www.iel.spokane.edu.

Many sources of financial aid are available from public and private agencies, including the Veterans Administration, Department of Vocational Rehabilitation, Bureau of Indian Affairs/Tribal Education Offices, and Department of Labor and Industries. Contact these agencies directly for eligibility requirements.

Financial aid recipients must enroll in an eligible program that leads toward a degree or certificate and maintain satisfactory academic progress (SAP) to continue receiving financial assistance. The SAP policy has two parts: Satisfactory Progress and Progress Toward Degree.

Satisfactory Progress is defined as completing a minimum of 12 credit hours in any given quarter in which the student is registered for 12 or more credit hours. A student registered for 9-11 credits (3/4 time) or 6-8 credits (1/2 time) must pass at least 9 and 6 credits respectively to be considered making satisfactory progress. A student receiving a Pell Grant based on less than 6 credits must complete all credits to meet SAP requirements. In addition, a student must maintain a cumulative grade point average of 2.0 or better at the end of each quarter of enrollment. Progress Toward Degree limits the number of quarters or credits for which a student will be considered for financial aid. Students must complete their degrees or certificates within 125 percent of the normal number of quarters or credits required to complete the degree or certificate. In addition, students must complete a set minimum percentage of their program coursework each year.

For complete financial aid regulations, call the SCC Financial Aid Office, 509-533-7017; SFCC, 509-533-3550; or IEL, 509-279-6031.

#### WORK-STUDY EMPLOYMENT

Work-study is a financial aid program that allows a student to work on-campus or with approved off-campus employers to earn money to pay for college expenses. By participating in the work-study programs students gain practical experience in the workplace while having a chance to see if the program of study they have chosen matches their expectations.

For more information, call the SCC Work-Study Placement Office, 509-533-8007; or SFCC, 509-533-3540.

# 15 STUDENT SERVICES

The Worker Retraining Program is designed to help eligible unemployed workers receive funding, if it is available, for retraining through SCC, SFCC or IEL. See the Continuing Education section for more details or call SCC, 509-533-8056; SFCC, 509-533-3042; IEL, 509-532-3172; or Colville, 509-279-6711.

# WORKFIRST FINANCIAL AID PROGRAM

The WorkFirst Financial Aid Program may pay for tuition, books and fees while eligible parents work and attend job training at CCS. WorkFirst work-study also may be available.

For more information about this program, call SCC, 509-533-8210; SFCC, 509-533-3042; IEL, 509-279-6063; or Colville, 509-279-6711.

# SCHOLARSHIP INFORMATION

The CCS Foundation awards hundreds of scholarships each year. Interested students should call the Foundation Office, 509-434-5122 or visit www.ccs.spokane.edu/Foundation/scholarships.aspx for a scholarship application and information. Applications are due March 15 for awards to be utilized the following academic year. A student only needs to complete one application to be considered for all Foundation scholarships for which they qualify. Information regarding other scholarships and scholarship search is available through high schools, college career centers and the public library. Organizations, clubs and/ or companies with whom students or their parents have some relationship occasionally offer scholarships. It is extremely important to start early. Scholarships usually are awarded on an annual basis with the year beginning in September.

SCC community, career and employment services and the SFCC career and student employment center maintain comprehensive, up-to-date scholarship resources. Both centers offer software programs, web sites, books, pamphlets and databases containing current local and national scholarship information.

For more scholarship information, call SCC, 509-533-8009; SFCC, 509-533-3545; or IEL, 509-279-6031.

# Veterans Affairs

Information and assistance are available to all veterans at the veterans affairs office located on each campus. SCC's Veterans Services Office is located in the Lair, Building 6—Student Center, Community, Career and Employment Services. SFCC's Veterans Affairs Office is located in the Student Union Building (upper concourse). Students intending to receive Veterans Administration (VA) educational assistance should coordinate with these offices to initiate the necessary applications for benefits.

For information, call SCC, 509-533-7027; or SFCC, 509-533-3504.

# **VETERANS ACADEMIC LOAD**

Monthly compensation is made according to the following schedule. All Chapters except 33

12 credits or more = full-time benifits

- 9–11 credits = three-quarter-time benifits
- 6-8 credits = half-time benifits
- 5 credits or less = tuition cost

Summer credits see coordinator for details.

# Chapter 33 (Post 9/11)

7 credits or more = full BAH (monthly housing)

Summer credits: 5 credits or more = full BAH

The VA will pay solely for classes required for graduation in a selected area of study. Meet with the campus veteran's coordinator to ensure class choices are appropriate for educational benefits.

# **VETERANS AND RESERVE/NATIONAL GUARD EDUCATIONAL** BENEFITS

Application for veterans and guard/reserve VA educational benefits is initiated through the Veterans Affairs Office at SCC, 509-533-7027; or SFCC, 509-533-3504.

A copy of Veterans' DD 214 (member-copy 4) is required to initiate benefits.

Educational benefits are available to eligible members of the Selected Reserves or National Guard who have a current six-year (or more) commitment. A "Notice of Basic Eligibility" form is required from the Guard/Reserve unit and must be presented to the campus veteran's coordinator to initiate benefits.

For more information regarding eligibility, contact a local Reserve or National Guard unit.

# **VETERANS TUITION WAIVERS**

Consult with the campus veteran's coordinator regarding eligibility for all veterans waivers (provide copy of DD 214): SCC, 509-533-7027; or SFCC, 509-533-3504.

# **VETERANS STANDARD OF PROGRESS**

A student receiving veterans' educational benefits must maintain a standard of progress required by CCS. A veteran who is academically dismissed by CCS will be decertified with the VA and will not be recertified until the student is counseled and readmitted by the college Academic Standards Committee.

# **Registering for Class**

# REGISTRATION

For registration dates consult the class schedule which is available prior to each quarter online at www.ccs.spokane.edu.

Students who plan to register at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning are encouraged to confer with an academic adviser or counselor.

CCS uses web and in-person registration processes. For up-to-date information on these processes, refer to the General Information section of the quarterly class schedule available on the web at www.ccs. spokane.edu. The current tuition and fees schedule can also be found on the web.

# SOCIAL SECURITY NUMBERS

Community Colleges of Spokane is required to collect the Social Security Number (SSN) or tax identification number from every student who attends SCC, SFCC or the IEL. CCS will only release a student's SSN in accordance with state or federal law and will protect the SSN from unauthorized use and/or disclosure. A student's failure to provide the SSN may result in administrative holds, and the student will be subject to a \$50 IRS penalty unless refusal to provide the SSN is due to reasonable cause and not due to willful neglect. In order to protect the SSN from unauthorized use and/or disclosure, a unique student identification number (SID) is assigned to each student for internal reporting purposes and registration.

# **CONCURRENT ENROLLMENT**

Students may concurrently register for classes at SCC, SFCC and the IEL. This allows the student flexibility in developing a class schedule. Students receiving financial aid have certain limitations and should consult the Financial Aid Office. Veterans should contact their veterans affairs coordinator.

# **CONTINUOUS ENROLLMENT**

Some classes are available on an open-entry and exit basis. For information, contact the counseling center, admissions, or registration office.

# VERIFICATION OF ENROLLMENT

Enrollment verification is provided to loan guaranty associations through the National Student Clearinghouse based on the information uploaded from the colleges. For enrollment verification of other outside agencies (e.g., Veterans Administration, insurance company, etc.), students must submit their signed verification request to the Transcript Office. A no-fee, self-service enrollment verification is available for students through the National Student Clearinghouse Student Self-Service program at www.studentclearinghouse.org. This service provides a printed proof-of-enrollment certificate and offers other enrollment verification activities for free.

# NAME CHANGES

It is the student's responsibility to keep SCC, SFCC and/or the IEL advised of their correct name. Students who change their names during the year are required to bring court documentation to the Registration Office.

# ADDRESS CHANGES

It is the student's responsibility to keep SCC, SFCC and/or the IEL advised of current address(es).

A student's correct home, e-mail and/or local address are important on all of his or her college records. Students will receive material through mail or e-mail.

Address changes may be completed through the institution's web site: SCC, www.scc.spokane.edu; SFCC, www.spokanefalls.edu; or IEL, www.iel.spokane.edu.

# <sup>16</sup> **PICTURE IDENTIFICATION**

Picture ID is required to pick up student records including class schedules, transcripts, work-study and financial aid checks. Library and bookstore transactions and/or use of the college computer/math labs also require picture ID. The first picture ID card is free, but there is a fee for replacement cards.

At SCC, student photo ID cards are available to all new students once enrollment is complete and may be obtained at the Check-out Desk in the Learning Resources Center (LRC), Building 16, Room 181. For hours of operation, call 509-533-8255.

At SFCC, photo ID cards are available to all new students once enrollment is complete and tuition and fees have been paid in full and may be obtained in the New Student Entry Center (NSEC), Building 17, Room 140. For hours of operation, call 509-533-3401.

For information about IEL picture ID's, visit your local center or call 509-279-6712.

# **SCHEDULE CHANGES**

It is the sole responsibility of the student to make his or her schedule changes. Adding or dropping classes or changing sections are steps a student should take only after consultation with a faculty adviser or counselor. Deadlines and processes to follow are published in the quarterly class schedule.

During the first 10 days of a quarter, a student may drop/withdraw from a course and no record of the course will appear on the student's transcript. After the 10th day, dropped course(s) will appear on the transcript with a "W" (withdrawal) notation. Short session classes are prorated accordingly. Summer quarter is prorated to the length of the quarter.

A student cannot officially drop a course simply by informing the instructor he or she is withdrawing or by ceasing to attend class. An official drop or withdrawal requires processing through the Registration Office. Instructors may use their discretion when issuing a grade to students who do not go through the schedule change process.

# **AUDITING A COURSE**

Students should select the audit option at the time of registration. A student auditing a class is not required to take final tests and will not receive a grade or credit, but he or she is expected to attend class regularly. The auditing student may not receive credit later for the course unless he or she repeats the course as a regularly enrolled student. Audit students are required to pay standard tuition and fees.

# **INDEPENDENT STUDY**

Independent study is offered in each academic discipline and designated by the course numbers 291, 292 or 293. A student may register for not more than three independent study courses per quarter, varying from 1 to 5 credits each, not to exceed a total of 10 credits of independent study during the student's tenure at Community Colleges of Spokane. Requirements and limitations concerning courses are available from the instructional departments.

# **REPEATING A COURSE**

If a student repeats a course all grades will appear on the transcript, but only the highest grade earned is used for computing the gradepoint average.

Veterans should note that the Veterans Administration will not pay for repeating a course in which the student has already received a passing grade.

Repeating a course may affect financial aid funding.

# WITHDRAWAL FROM COLLEGE

Students are responsible for withdrawing from college whether they attend class or not. Students who find it necessary to totally withdraw from college should first consult with a faculty adviser or counselor.

Failure to follow the required procedures for withdrawal may result in failing grades being submitted; possible repayment of financial aid, veteran benefits, and forfeiture of all claims for refund of tuition and fees.

Refund and withdrawal dates for classes that do not follow the regular academic calendar are based on a proportionate relationship to the length of a standard quarter. A list of these classes is available in the registration area.

# **Credit Information**

# **CREDIT HOUR AND LOAD**

The "quarter credit hour" represents one class hour per week for the entire quarter. Laboratory and activity courses usually meet an additional hour each week per credit hour.

Most academic courses carry a credit range of 1-5 credits. Some career and technical courses exceed 5 credits because of program requirements. Students planning to enroll for more than 21 credit hours must obtain permission from a counselor, the student services dean over enrollment services, the registrar or a designee. If the cumulative overload credit hours are taken through CCS institutions, permission is required.

To make normal progress toward graduation in liberal arts, a student must earn a minimum of 45 credits a year in appropriate college-level courses. In career and technical programs, the student must satisfactorily complete the hourly credit requirements of the program.

Student credit hour enrollment categories are shown below: (See the Tuition and Fee Schedule at www.ccs.spokane.edu/currentCatalog. aspx.)

Full-time	12 or more credits
Half-time	9 – 11 credits
Three-quarter-time	6 – 8 credits
Less than half-time	1 – 5 credits

# **TRANSFER CREDIT**

Community Colleges of Spokane follows the statewide policy for transfer of credits as endorsed by the State Board for Community and Technical Colleges. Credits from other accredited institutions in degree, diploma and certificate programs may be transferred upon approval. For more information on transfer credit and degrees, refer to the Academic Programs section of this catalog.

# **COOPERATIVE EDUCATION WORK EXPERIENCE**

Students can earn credit through work experience.

Cooperative education is an organized program of study and educational work experience available throughout the student's college career.

To enroll in cooperative education the student registers for supervised cooperative work experience and the related seminar in the department appropriate to his/her academic or occupational goals. An instructor/ coordinator is assigned who interviews the student and assists in locating appropriate full- or part-time paid employment as needed. In the case of those already employed, the instructor/coordinator interviews the student to determine eligibility for cooperative education. Students also may receive cooperative education credit for some types of nonpaid job experience.

Three work options are available for earning credit:

- The student works part-time and attends classes on a daily basis.
- The student works full-time and attends classes part-time. This is of particular interest to evening students.
- A student may leave the campus to work full-time for a quarter, then return to resume his/her studies. This option is desirable where work experience is located outside the service area of the community college.

A student must be registered for cooperative education work experience to receive credit.

The following courses may be offered in each academic discipline at the discretion of the vice president of learning. Specific requirements and limitations concerning courses are available from the appropriate campus instructional administrator.

Cooperative Education Seminar 266 (1-2 credits) and Cooperative Education Work Experience 267 (1-18 credits) or Cooperative Education Work Experience 288 (no seminar) (1-18 credits) can be used to meet graduation requirements for professional/technical programs with the approval of the appropriate dean.

Cooperative Education is available in many programs. For more information, call SCC, 509-533-7249; or SFCC, 509-533-3545.

# **DISTANCE LEARNING / eLEARNING**

Distance learning courses (online courses, hybrid courses, telecourses and interactive television courses) offer students an alternative to on-campus classes. The content, college credit, and transferability of distance learning courses to other institutions are equivalent to traditional courses on campus.

STUDENT SERVICES

Distance learning courses are best for individuals who can work independently, effectively budget their time and set priorities. They are helpful for students whose job or home responsibilities limit the time they can spend traveling to or attending a conventional class. Motivation, study habits, communication with the instructor and organization are the keys to distance learning success.

eLearning instruction may involve the use of computers, televised lessons, text materials and/or on-campus sessions. Some courses require on-campus visits for discussion sessions, laboratories or testing. Students may enroll through SCC, SFCC or the IEL. See the types of courses below for more information. For current course listings, check the quarterly class schedule. Distance learning classes are identified with the words "Online," "Hybrid," and "Telecourse" in the class listings. Further information can be obtained by contacting SCC, 509-533-8240, www.scc.spokane.edu/dl/; or SFCC, 509-533-3216, www.spokanefalls. edu/elearning, e-mail sfccelearning@spokanefalls.edu; or IEL, 509-279-6208, e-mail ielangel@iel.spokane.edu.

## **ONLINE COURSES**

Online courses provide flexibility and convenience in pursuing your educational goals. Online courses are not self-paced. They have scheduled start and stop dates, regular assignments and project due dates, but since the classroom is online, you can work on your class at the time and place most convenient for you.

Although online courses are more convenient, they are not necessarily easier. They have been developed with the same learning outcomes as regular on-campus college classes. Even though you do not attend class at a specific time and place each day, you will need to spend several hours working on the class (typically five out of every seven days for a 5-credit course). You must have access to a computer with an Internet connection and an e-mail account. Please visit the web sites listed above or consult the quarterly class schedule for current course listings.

## **HYBRID COURSES**

A hybrid course meets on campus periodically and uses online delivery for the rest of the class. Students often will find lecture material, tests, discussions and other resources online for a hybrid course. Please visit the web sites noted above or consult the quarterly class schedule for current course listings.

#### TELECOURSES

A telecourse is a regular college credit course incorporating video/television to teach concepts, supplement textbook information and enable students to communicate with instructors or other telecourse students. Rather than a conventional class setting, telecourses rely on communication media to free students from time and location constraints.

A quarter-long telecourse may include up to 30 video lessons broadcast on cable TV over a period of 10-12 weeks. One to four new videos are broadcast each week and repeat throughout a one-week period. Videos also are available for viewing at the SCC media center, SFCC library and the IEL centers outside of the Spokane area.

On-campus discussion sessions may be scheduled during the quarter. Please refer to the course syllabus for testing and on-campus attendance requirements. Visit the web sites listed previously or consult the quarterly class schedule for current course listings.

# **COLLEGE CREDIT BY NONTRADITIONAL MEANS**

Community Colleges of Spokane is concerned about the educational needs of all people within its six-county district, not only those who attend the formal educational institutions, but also those who are striving to advance educationally outside the formal school environment.

CCS recognizes several methods by which students may receive college credit outside the traditional program of class attendance. Methods for evaluating nontraditional learning include credit by articulation; Certified Professional Secretary (CPS) evaluation; Certified Administrative Professional (CAP) evaluation; departmental challenge examinations; prior learning/life experience evaluation; Advanced Placement Program, sponsored by the College Board; and military education and experience evaluation.

Students who have made application to attend SCC, SFCC or the IEL shall be eligible for nontraditional credit evaluation. Credit awards will not be granted until the student has completed one full quarter of enrollment with at least 10-quarter credits earned.

The student must initiate a request for nontraditional college credit at SCC, 509-533-7026; SFCC, 509-533-3164; or IEL, 509-279-6001. Nontraditional Credit Awards:

may be used to meet any appropriate graduation requirement.

• do not count toward the residency requirement of 30-quarter credits.

- will not satisfy credit hour requirements in the veterans benefit program or any other financial assistance program.
- may be granted for prior learning/life experience following completion of a portfolio class and evaluation of the learning/life experience portfolio. (Additional costs for portfolio evaluation may be assessed.)
- must be approved by the appropriate department chair or designated department faculty member in the discipline for which credit is sought.

Students complete the application for Nontraditional Credit form (form CCS 4062). There is a nonrefundable \$10 nontraditional credit evaluation fee for the Certified Professional Secretary (CPS) evaluation, departmental challenge examinations, and prior learning/life experience evaluation at the Cashier's Office (Section A of the form). No fee is required for Advanced Placement Program credit or military education and experience evaluation.

# Fees Are Charged At The Following Rates:

0	
Certified Professional Secretary (CPS)	\$5 per credit processing fee
Certified Administrative Professional (CAP).	\$5 per credit processing fee
Credit by Articulation	\$5 per credit processing fee
Departmental Challenge Examinations	\$5 per credit processing fee
Prior Learning/Life Experience	\$5 per credit processing fee
Military Education and Experience Evaluatio	n No fee
Advanced Placement Program	No fee

# CERTIFIED PROFESSIONAL SECRETARY (CPS) OR CERTIFIED ADMINISTRATIVE PROFESSIONAL (CAP)

A student who has successfully completed 15 to 30 quarter hours of credit at SCC and/or SFCC may be granted further credit of up to 60quarter hours upon completing the requirements of the CPS or CAP examination. Upon completion of 15 credits at SCC, SFCC and/or the IEL, 30 credits may be granted. Upon completion of the 30 credits at SCC, SFCC and/or the IEL, 60 credits may apply toward the requirements of an associate in applied science or associate of arts degree at SCC or SFCC. The designation as a CPS or CAP may permit specific credit to be given up to 60 credits.

The request for granting these credits by nontraditional means should be directed to the dean of instruction for business at SCC or SFCC. The student applying for CPS or CAP nontraditional credit must pay a nonrefundable \$10 nontraditional credit evaluation fee. CPS credit processing fees are charged at the rate of \$5 per credit.

# **CREDIT BY ARTICULATION**

Agency — Individuals who have completed training through nondegree awarding agencies or institutions may apply for evaluation for credit; for example, recognized nursing and fire service training, law enforcement/corrections or fire science academies, certifications, licensing, etc. Official documentation of training or licensing is required. Training documentation will be evaluated by instructional faculty in the appropriate department. The student must pay a nonrefundable \$10 nontraditional credit evaluation fee.

Students complete the application for Nontraditional Credit form (form CCS 4062). There is a nonrefundable \$10 nontraditional credit evaluation fee for the credit by articulation evaluation at the Cashier's Office (Section A of the form). Processing fees are charged for credit by articulation at the rate of \$5 per credit. Payment of fees certifies that the grade and credit awards have been accepted as recorded on the Application for Nontraditional Credit form (form CCS 4062). Grade and credit awards will be posted to the student's academic transcript. (Exception: No fee is required for high school Tech Prep students. For details, go to Tech Prep in the Dual Credit section of this catalog.)

# DEPARTMENTAL CHALLENGE EXAMINATIONS OR PRIOR LEARNING/LIFE EXPERIENCE EVALUATION

Students who wish to apply for a course challenge or prior learning/ life experience evaluation must be interviewed and approved through the instructional department. Students should have justification for their request, a high school or college transcript, portfolio and/or other information pertinent to the request for credit. A course may not be challenged if the student is currently enrolled in, has previously earned credit in or has previously audited the course. A student may challenge a course he/she has previously enrolled in and received a grade only with the permission of the appropriate dean and department chair and/ or designated department faculty member in the discipline for which credit is sought. (For transfer courses please check with the receiving institution for policies concerning challenge credits.) 18

The student must pay a nonrefundable \$10 nontraditional credit evaluation fee before taking an examination or having prior learning/life experience evaluated. Processing fees are charged at the rate of \$5 per credit for the departmental challenge examinations and prior learning/ life experience evaluation.

# ADVANCED PLACEMENT PROGRAM

Students who do college-level study in high school can receive appropriate credit or placement or both on the basis of performance in the Advanced Placement program (AP). The AP program is sponsored by the College Board.

An official copy of the AP College Grade Report and/or other information pertinent to the request for credit must be submitted.

AP credit awards will not be granted if the student is currently enrolled in or has successfully completed or earned credit for the course. There are no fees for AP credit awards.

ΔP

Subject	Score	Advanced Placement Action
Art		
Studio Art Drawing	5	ART 101 — 4 credits
Studio Art 2D Design	5	ART 105 — 5 credits
Studio Art 3D Design	4	ART 106 — 4 credits
Art History	4,5	ART& 100 — 5 credits
Biology	3,4,5	BIOL & 160 — 5 credits granted after completion
0,		of another life science laboratory course with a
		grade of 3.0 or better
Chemistry	3	CHEM& 161 — 5 credits
	4	CHEM& 161, 162 — 10 credits granted after
		completion of CHEM& 163 with a grade of 3.0
	_	or better
	5	CHEM& 161, 162, 163 — 15 credits
Computer Science A	3,4,5	CS& 141 — 5 credits granted after completion
·		of CS 142 with a grade of 3.0 or better
Economics	4.5	
Macroeconomics	4,5	ECON& $202 - 5$ credits
Microeconomics	4,5	ECON& 201 — 5 credits
English Lang/Comp	3,4	ENGL& 101 — 5 credits
<b>D</b> 101 <b>D</b> 10	5	ENGL& 101, 102 — 10 credits
English Lit/Comp	3,4,5	ENGL& 101, 111 — 10 credits
Environmental Science	4,5	ENVS 104 — 5 credits
French	3	FRCH& 121, 122, 123 — 15 credits
	4,5	FRCH& 221, 222, 223 — 15 credits
German	3	GERM& 121, 122, 123 — 15 credits
	4,5	GERM& 221, 222, 223 — 15 credits
Government & Politics	3,4,5	POLS& 202 — 5 credits
History – European	3	HIST& 116 — 5 credits
	4	HIST& 116, 117 — 10 credits
	5	HIST& 116, 117, 118 — 15 credits
History – U. S.	3	HIST& 136 — 5 credits
	4,5	HIST& 136, 137 — 10 credits
Calculus AB	3,4	MATH& 151 — 5 credits granted after comple-
		tion of MATH& 152 with a grade of 2.0 or
	_	
	5	MATH& 151, 152 — 10 credits
Calculus BC	3	MAIH& 151—5 credits granted after comple-
		hotter
	4.5	MATH& 151 152 – 10 credits
Music	ч,5	
Music Theory	4	MUSC & 141 142 143 – 15 credits
widsic fricory	5	MUSC & 141, 142, 143 $-15$ credits
Physics – B or C	3	PHYS 101 - 5 credite
1 Hysics - D OI C		PHVS 101 $\pm 0.02$ $\pm 0.02$ produces
	5	PHVS 101, $102 = 10$ credits
Peychology	15	$PSVC l_{r} 100 - 5 credite$
Snanish	2	SPAN& 121 122 123 - 15 credite
opamon	15	SPANIs 221, 122, 123 = 15 credits SPANIs 221, 222, 223 = 15 credits
Statistics	2/5	MATH 221, 222, 225 - 15 Cleuits
STATISTICS	13,4,3	VIAI I 1 ZZI = 0 CIEURS

Other subject area scores may be considered with instructional department approval.

# EVALUATION OF EDUCATIONAL EXPERIENCES IN THE ARMED SERVICES

The Armed Forces of the United States provide military personnel with a great variety of educational opportunities through formal service school training programs and off-duty educational activities. Since before World War II, the American Council of Education, in cooperation with other national educational organizations, has been interested in the development and evaluation of off-duty educational programs as well as the evaluation of the formal service training courses. In response to a need expressed by civilian educational institutions throughout the country, the council established in 1945 its Commission on Accreditation of Service Experiences as an agency to assist institutions by providing continuing evaluations of military educational programs in terms of academic credit.

For CCS to establish a means of management, evaluation, and award of credit for educational experiences in the Armed Services, the following procedures will be adhered to:

- 1. The student will request the vice president of student services or his/her designee to evaluate the student's experiences in the Armed Services.
- 2. All students who have made application to attend CCS shall be eligible for credit evaluation. Credit awards will not be granted until the student has completed one full quarter of attendance at CCS with at least 10-quarter credits earned. (Students do not need to be enrolled during the quarter the credits are awarded.)
- 3. The following list will be considered educational experiences in the Armed Services:
  - Credit for military service including basic training.
  - Defense Activity Nontraditional Educational Services (DANTES) and College Level Examination Program (CLEP) courses and/or subject exams, ACT Proficiency Examination Program (ACT PEP) and the Regents College Examination Program (RCEP).
  - Training and service school training with the following departments: Air Force, Army, Coast Guard, Department of Defense, Marine Corps, National Guard, Navy.
- 4. The appropriate edition of A Guide to the Evaluation of Educational Experiences in the Armed Services (ACE Guide), published by the American Council on Education, and/or the Community College of the Air Force (CCAF) transcript and catalog, and/or Army/ACE Registry Transcript System (AARTS), and/or Sailor-Marine American Council On Education Registry Transcript (SMART) shall be accepted by CCS as the basis on which it evaluates and awards college-level credit for military training.
- 5. The student will verify his or her educational experiences by providing the college the following official records: AARTS Transcript (Army), CCAF Transcript (Air Force) or SMART Transcript (Sailor-Marine) that provide full and correct title of courses completed and course numbers.
- 6. Military experiences that cannot be equated to the current college catalog but evaluated as college credit shall be recorded as military credit without grade points awarded and counted towards degree and certificate programs as elective credit as indicated in the guide.
- 7. The college official evaluating the service training shall be responsible for documenting the awarding of credit by submitting an Application for Nontraditional Credit form with attached copies of documents verifying training. Original copies, dated and initialed by the college official, will be sent to the Registrar's Office to be filed in the student's permanent folder. A copy will be sent to the student.
- 8. Credit recommendations will not be provided by correspondence to individual veterans or service personnel on active duty unless he/ she has made application with CCS.
- 9. No fees are assessed for the evaluation of educational experiences in the Armed Services.

# **EVALUATION GUIDELINE FOR ARMED SERVICES**

Students who complete acceptable CLEP scores while eligible for a Servicemember's Opportunity College (SOC) program will be evaluated and awarded credit under a special contract. Official DANTES test scores or transcripts reporting DANTES and/or CLEP scores must be submitted to verify scores and military status at the time of the test. Scores not reported on DANTES forms will not be accepted unless documentation is provided, which verifies military status at the time of the test. Pass/fail grades will be used for DANTES, CLEP Exams, ACT PEP and RCEP. Veteran students must provide the colleges (depending on their branch of service) an official copy of their AARTS Transcript (Army), CCAF Transcript (Air Force) or SMART Transcript (Sailor-Marine) for evaluation.

Guidelines from the Intercollege Relations Commission (ICRC) for the state of Washington for the associate of arts (A.A.) degree limit the use of credits granted for vocational training, military training including test, life and work experience, etc., to 15 credits — all to be counted as electives for the A.A. degree, with the exception of up to 5 credits of the 15 which may be used to meet section VI. HEALTH-RELATED/PE/ RECREATIONAL/LEISURE ACTIVITIES, group A and group B. The A.A. degree for Spokane Community College (SCC) and Spokane Falls Community College (SFCC) will comply with these state guidelines for all military-related credit posted to a SCC or SFCC transcript. A.A. degrees with more than 15 "restricted" credits within the 90 credits required may have the degree refused by four-year institutions in Washington.

# **Academic Information**

# **QUARTER SYSTEM**

CCS operates on a quarter system: summer, fall, winter and spring. Academic calendars are posted at www.ccs.spokane.edu.

# **COURSE NUMBERS**

Courses numbered below 100 are not considered college level and are not designed for transfer.

Academic courses numbered 100-199 inclusive normally are taken by first-year students.

Courses numbered 200-299 inclusive normally are taken by second-year students.

# **GRADING POLICY**

Community Colleges of Spokane grading system provides a permanent record of grade evaluations that reflect, in various ways, successful course and program completion. The colleges operate on a quarter system. The quarter hour of credit is the unit of instruction.

# **GRADE LEGEND**

Grades at CCS are reported in numerical fractions to the nearest tenth. The numerical grades are based on the letter grade system used prior to the 1986-87 academic year, and general equivalents are as follows:

Numeric Grade	Letter Grade Equivalent	
3.8-4.0	A (superior achievement)	
3.5-3.7	A-	
3.2-3.4	В+	
2.9-3.1	B (above average achievement)	
2.6-2.8	В-	
2.3-2.5	C+	
2.0-2.2	C (average achievement)	
1.6-1.9	C-	
1.3-1.5	D+	
1.0-1.2	D (minimum achievement)	
0.7-0.9	D-	
0.0-0.6	F (failure)	
GRADE SYMBOLS		

# GRADE SYMBOLS

Explanation foll	ows symbol.
Ι	Incomplete
N	Audit
Р	Pass
F	Fail
W	Official Withdrawal
Z	Special Withdrawal
*	Missing Grade

## Conditions for which they are assigned

I Incomplete — 0.0 grade points; no credit. Incomplete grades "I" may be issued only to those students whose work to date is passing but not completed at the end of the quarter. All "I" grades issued by an instructor should be accompanied by an "Incomplete Contract." All incompletes must be made up prior to the official end of the next quarter with the following exceptions: (1) "I" grades earned spring

quarter must be made up prior to the official end of fall quarter, and (2) "I" grades issued to students in the career and technical division of the college are to be made up according to a special schedule developed by the department chair and the chief academic officer, and (3) an incomplete that is not made up will default to the decimal grade listed on the Incomplete Contract.

- N Audit Special registration. 0.0 grade points; no credit.
- **P** Pass 0.0 grade points; credit not calculated in GPA. A passing grade may be issued in certain pre-designated courses or experience-related evaluations for credit rather than the regular grading system. Courses designated with a pass/fail option must be approved by the College Curriculum Committee prior to the beginning of a course.
- **F** Fail 0.0 grade points; credit calculated in GPA. Courses designated with a pass/fail option must be approved by the College Curriculum Committee prior to the beginning of a course.
- **W Official Withdrawal** 0.0 grade points; no credit. All official withdrawals "W" prior to the seventh week of the quarter are the sole responsibility and prerogative of the student and must be initiated and completed by the student. The official withdrawal date for summer quarter will be prorated accordingly. To prevent a "W" grade showing on the student transcript, the student must drop the class or withdraw completely by the tenth day of the normal quarter, eighth day for summer quarter. Short courses will be prorated accordingly.

Exceptions to the refund policy will be considered only if, in the judgment of the college, an extreme hardship has been caused by illness, hospitalization, or military transfer. A student must submit an appeal for an exception to the refund policy with a completed official withdrawal form (CCS 40-133) and written documentation (letter from the doctor in the case of illness) to the registrar. For the case of medical withdrawal at the IEL and SFCC, in addition to the CCS 40-133 form the Medical Withdrawal Request Form must also be completed along with a written or typed letter on business letterhead from the student's health care provider stating date(s) of care, the health condition being treated and the letter must state "Patient is unable to attend classes and must withdraw from school."

- **Z** Special Withdrawal 0.0 grade points; no credit. All withdrawals of this type must be designated by the instructor on the regular grade sheet at the end of the quarter.
  - 1. After consultation with the student prior to the end of the quarter, the faculty member may agree to grant a special withdrawal on the last day of the quarter. The decision to grant the special withdrawal is to be based on what is best for the student in light of his or her educational objectives.
  - 2. In the event that a student enrolls for a class and stops attending, a special withdrawal may be granted only by the instructor on the last day of the quarter.
  - 3. Students meeting attendance requirements of the instructor but doing failing work may be given a special withdrawal by the instructor. This must be changed by the instructor to a regular academic grade reflecting proper achievement level if requested by the student prior to the official end of the next quarter.

The faculty member is under no obligation to agree to grant a special "Z" withdrawal.

Only faculty may change a "Z" grade to a decimal grade by delivering a signed grade change form to the transcript area at SCC and the Admissions/Registration Office at SFCC.

\* Missing Grade — No grade received from faculty.

Academic Standards Requirements for "W" and "Z" Withdrawals The following schedule applies to any combination of two or more "W' or "Z" symbols and will have a bearing upon academic standard requirements:

- First quarter: two or more academic warning
- Second quarter: two or more academic probation
- Third quarter: two or more approval required prior to registration

# 20 GRADE POINT AVERAGE (GPA)

Grade point averages are calculated by dividing grade points earned by the credit hours attempted. The following is an example of a grade-point average computation:

Credit Ho	urs		Gr	ade Points
Attempte	d	Grade		Earned
5	х	3.0	=	15.0
3	х	4.0	=	12.0
4	х	2.0	=	8.0
5	х	1.0	=	5.0
1	х	0.0	=	0.0
18				40.0

Dividing 40.0 by 18 computes to a grade-point average of 2.22.

# **STUDENT GRADE APPEAL**

The appeal order for a student who feels that he or she has received an unfair grade is as follows:

- Instructor of the course
- Department chair
- Division dean
- Chief academic officer

# **GRADE CHANGE**

Students should request grade changes from the instructor prior to the end of the next quarter.

# **GRADE CHANGE IN ABSENCE OF INSTRUCTOR**

Under extraordinary circumstances, and in applying due diligence, the chief academic officer will make a good faith effort to arrive at an appropriate grade.

# **GRADE REPORT**

Grade/transcript information will be released to students seven days after the end of each quarter via the college Internet at SCC: www.scc. spokane.edu, and SFCC/IEL: www.spokanefalls.edu. Students also may access the information via a campus/center, computer or kiosk. Grades/ transcripts may be withheld if the student has a financial obligation to the college, which may include loans, library fines or delinquent fees.

# **HONOR ROLL**

Students eligible for the President's Honor Roll or the Vice President's Honor Roll must meet the following minimum criteria.

- 1. Be a full-time student who has earned 12 or more quarter decimal grade credits as computed by the end of the quarter grading cycle.
- 2. Achieve a 3.50 or above for the President's Honor Roll.
- 3. Achieve a 3.0 3.49 for the Vice President's Honor Roll.

Pass credits are not computed in the quarterly or cumulative grade point average, therefore do not count as completed credits toward the honor roll.

The honor roll program that automatically enters the honor roll status on the transcript will be run only once, after the quarterly grading cycle. Exception: If the instructor has made an error in grading and the student should be on the honor roll, staff will manually enter the appropriate honor roll status onto the transcript.

# GRADUATION

Students must petition for graduation to have their credits evaluated for the requirements of their respective degrees. Graduation ceremonies are held in June. Students completing their degree requirements at other times during the year are encouraged to return to participate in these activities. Students who finish their degree requirements during the summer quarter may participate in the June commencement. (Refer to the Degree and Certificate Requirements.) Participation in the commencement ceremony does not ensure completion of a degree and/or certificate.

# **HONOR CORDS**

Students who achieve the following grade point averages (GPA), as calculated at the end of the last graded quarter prior to the graduation ceremony, or at the end of their last quarter of enrollment in credit classes, whichever comes first, will be designated by wearing honor cords when they participate in graduation.

SCC: A college-level GPA of 3.5 and above in completion of career and technical degrees/certificates and a college-level GPA of 3.5 and above

in completion of an associate of arts degree.

SFCC/IEL: A cumulative GPA of 3.5 and above in completion of degree and one-year certificate requirements.

# **CLASS ATTENDANCE**

Students are expected to attend all classes and laboratories. If absent due to illness or other unavoidable reasons, the student should contact instructors and make arrangements for completing missed assignments (see Academic Standards Policy).

# ACADEMIC STANDARDS POLICY

Community Colleges of Spokane's Academic Standards Policy is intended to support a successful learning experience for all students. Students enrolled in degree or certificate programs are expected to demonstrate satisfactory academic progress as defined by the following general policy requirements:

- Minimum Grade Point Average: Students must achieve and maintain the required grade point average.
- Degree/Certificate Completion: Students should complete the degree or certificate within the maximum credit limit.

Community Colleges of Spokane recognizes the unique and diverse backgrounds and needs of students, and while all students are held to the same level of academic excellence, students with special circumstances may petition for special consideration. Students enrolled in special programs are also required to follow the requirements specified by their funding agency. In addition, students receiving federal and/or state financial aid must follow the Financial Aid Satisfactory Progress Policies (as revised 11-16-04).

#### PROCEDURES

## Minimum Grade Point Average

Students must maintain a quarterly grade point average of 2.0 or better and are encouraged to consult with instructors, counselors or faculty advisers, and student services support staff for assistance in achieving their academic goals and objectives. Students whose quarterly grade point average falls below a 2.0 are notified of progressive action, to include warning, probation and suspension. Students must have a final college-level GPA of 2.0 or better to receive a degree or certificate from Community Colleges of Spokane.

# Degree/Certificate Completion

A student who is enrolled in a degree or certificate program must complete the program in at least 125 percent of the program's credit requirements. A student in a degree or certificate program may not take college-level courses in excess of 150 percent of the credits needed to complete the degree or certificate. For the purposes of this policy, 90 credits will be assumed to be the program length unless otherwise indicated.

To assist the student in meeting this standard the college will monitor local, college-level credits leading to degree/certificate completion. A student who does not meet this standard will be subject to corrective actions.

# **Learning Resources**

# **BUSINESS TECHNOLOGY CENTER (SCC)**

The SCC Business Technology department offers individualized instruction in a broad selection of computer-based courses.

Courses for 2.5-credits in Excel, PowerPoint, Access, Word, and Project are designed specifically for those who have an interest in learning more about these software programs. All of these courses meet for approximately five weeks. Five-credit courses for students preparing for an office career include Keyboarding 101, Document Processing 102, Word Processing 165, Information Processing 201 (Excel), Advanced Information Processing 202 (PowerPoint and Access), Machine Transcription 235, and Integrated Office Applications 263.

All of these courses are offered during the day and the evening, on Saturdays, and online via the Internet.

For more information, call SCC, 509-533-7343.

# LEARNING RESOURCES CENTER (SCC)

The Spokane Community College Learning Resources Center (LRC) houses the Instructional Services (IS) division — the Library, Media Center, and Web Services – as well as two eLearning classrooms and some of the Information Services offices. The IS division offers leader-ship and support for outcomes-based teaching and learning by providing

STUDENT SERVICES

diverse materials and technologies to encourage information literacy and lifelong learning.

The Library provides access to extensive information resources. The print collection includes over 44,000 volumes, complemented by approximately 150 periodical titles. The media collection includes more than 3,000 video tapes, DVDs and music CDs. In addition, the library webpage www.scc.spokane.edu/?library provides access to a variety of databases, eBooks and other resources selected to support coursework. Students can get research assistance in person at the reference desk, by phone, via e-mail, and also by using a 24/7 online chat service. Computer stations and a wireless network are available for student research. The SCC library is home to the Footprint Coffee Stand, allowing students to enjoy a beverage and/or snack while they research, study or enjoy a good book.

The Hagan Foundation Center for the Humanities is located on the second floor of the library. It is dedicated to the study and celebration of the humanities and serves as a place for the college to hold readings, workshops, presentations, dialog and classes in an intimate, cheerful, flexible space.

Media Services houses a wide variety of technology-based services and resources. The Instructional Media Lab includes 30 computers with high speed Internet access, MS Office, resume writing software and other applications. Color and black and white laser printers are available. Students can use the Lab to create projects, work on assignments, do research, access online classes and accomplish a host of other courserelated tasks. Laptop computers, video camcorders, digital cameras, media projectors and other devices can be checked out. Several study rooms are available for individual or group work.

The Presentation Zone is a space in the Media Lab where students can create, refine and rehearse presentations, either individually or as a group. It provides a simulated classroom environment and is equipped with a podium, computer and media projector. The Lab is also home to the LRC's Testing Center where Media staff proctor telecourse tests, other eLearning tests and numerous certification exams offered through ACT, Lasergrade and Prometric.

The Graphics department within Media Services is a full-service design shop. Faculty, staff and students can take advantage of professional services to fine tune an existing project or build a project from initial conceptualization to a finished print product or electronic file. Instructors and staff may also schedule the services of a professional photographer for capturing still images to be used as course content.

The Electronic Media department provides video production services in support of the curriculum and campus promotion. Students can use video editing stations for class projects and receive helpful assistance from Media staff.

Faculty and staff are encouraged to work with web services staff to create everything from simple informational web sites to sophisticated online applications that enhance students' classroom and laboratory experiences.

For more information, call the Instructional Services and Telecommunications Office, 509-533-7045.

# **CENTER FOR ENTREPRENEURSHIP (SCC)**

The Center for Entrepreneurship offers a hands-on approach to training future business leaders and entrepreneurs. The center offers a three quarter Entrepreneurship Certificate program where students create a business from the ground up. College instructors working together with local business and community leaders guide students through the process of starting and launching a business.

Faculty and staff work closely with the SBA, Small Business Development Center, local Chambers of Commerce, Society of Retired Executives (SCORE) and many others. Advisory committee members are successful entrepreneurs, lenders, business consultants, accountants and legal experts. The center's instructors bring a wide variety of specialties and expertise to the program and have a wealth of information to offer future leaders through instruction, advice and resources.

The Center for Entrepreneurship is conveniently located in a state-ofthe-art facility, specially designed for business success, in Building 1, Room 127 on the SCC campus.

For more information, visit http://cfe.scc.spokane.edu or call 509-533-7372.

# STUDENT SUPPORT CENTER NORTHERN COUNTIES (IEL)

The Student Support Center provides students with additional resources to reinforce classroom instruction. The Center assists students in strengthening their study skills and provides a wide variety of academic services that promote academic excellence and success. Located in Room 111 of the Institute for Extended Learning, Colville Center, tutors are available for a variety of subjects. Distance tutoring to other northern counties centers is available via webcam and phone appointments. The Center also has computers and assistive technologies for student use. General information and referrals for additional programs and services such as PACE, Disability Support Services and Veteran's Services are also available in the Student Support Center. Full services are offered Fall, Winter and Spring quarters with limited services available Summer quarter. For more information, call 509-685-2122.

# **TUTORING CENTER (SCC)**

SCC's Tutoring Center includes a mathematics lab, English writing center, language lab and computers for students to use, and provides tutoring in up to 20 academic/professional technical disciplines. Developmental lab-based classes (Math 20 and English 98) are held in the tutoring center.

Tutoring in mathematics, English and computing is available all hours the center is open; tutoring in other areas is available on an as-needed basis and as tutors are available.

Four computer classrooms are housed in the center. The main area has 16 computers dedicated to walk-in use. Two computer classrooms house 24 computers each which are available for walk-in use when classes aren't scheduled. The language lab has nine computers with Rosetta Stone interactive software supporting Spanish, French and Chinese curriculum. All computers have Internet access, printing capabilities including color, and a wide variety of academic software supporting SCC's programs and courses.

Currently, the center employs approximately 45 tutors, who are SCC students, students from local universities and paid or volunteer professional staff.

The center's mission is to provide a supportive learning environment where every student is valued and encouraged to excel academically while successfully pursuing professional and personal goals.

The SCC Tutoring Center is located in Building 1, Room 1220. For additional information, call 509-533-7322.

# **COMMUNICATIONS LEARNING CENTER (SFCC)**

The SFCC Communications Learning Center (CLC) is designed to help students improve their reading, writing and study skills. Faculty members identify each student's strengths and weaknesses and tailor programs to meet individual needs. Students may enroll in these selfpaced, variable-credit courses throughout the quarter on a space available basis until the last two weeks. Two-credit sections of Read Right® start at the beginning of each quarter and at mid-quarter.

The Communications Learning Center is located in Building 5, Room 113. For more information, call 509-533-3604.

# **MATHEMATICS LEARNING CENTER (SFCC)**

Courses from basic math through intermediate algebra can be taken in the SFCC Mathematics Learning Center by independent, disciplined, self-motivated, goal-oriented individuals. These courses are offered at a variety of times (including evenings and weekends) with an individualized, self-paced learning format. Video and/or computer-based tutorials are offered for these courses. Geometry also is offered as independent study.

Learning Center personnel provide assistance in the areas of math review, metric system, plane geometry, pre-algebra, elementary and intermediate algebra.

The Mathematics Learning Center is located in Building 18, Room 213. For more information, call 509-533-3671.

# **BUSINESS MATH CENTER (SFCC)**

The SFCC Business Math Center (BMC) is located in Building 24 (snw'ey'-mn), Room 101. Students learn practical and basic business number skills and the use of the business desktop calculator. They learn at their own pace and receive one-on-one instruction and encouragement from staff. Courses range from 1 to 5 credits depending on the student's need or program requirement.

For more information, call 509-533-3703.

The SFCC Business Technology Computer Classroom is located in Building 18, Room 219. Classes offered include beginning and advanced levels of keyboarding, formatting, skill building, machine transcription, as well as model office practicum classes. The computer classroom is open a variety of morning and evening hours to accommodate schedules. Students may choose to take classes for credit or noncredit, on campus or online, and should speak with an adviser/instructor to determine which class is right for them.

For more information, call 509-533-3841.

# **COMPUTER APPLICATIONS (CAPPS) CENTER (SFCC)**

Computer applications courses are offered in Building 18, Room 219. Each quarter, a broad selection of courses is offered in a computer center setting with instructor guidance. Students can choose a variable number of credits (1-8 credits) and work at their own pace, within a due-date structure, to determine the length of their course. The computer classroom is open a variety of morning and evening hours to accommodate schedules. Courses offered in this setting include Windows Operating System, Introduction to Office, Word, Excel, Access, PowerPoint and Publisher. Students can also enroll in teacher-led Outlook. Enrollment in CAPPS classes can occur at the beginning of the quarter or at any time up to the last three weeks of a quarter. Students may choose to take classes for credit or noncredit, and should speak with an adviser or instructor to determine which class is right for them. For more information, call 509-533-3841.

Microsoft Computer Applications Specialist Certification — SFCC is an Authorized Testing Center for the exams. For more MCAS information, call 509-533-3486.

# **COMPETENCY-BASED EDUCATION LAB (SFCC)**

The Competency-Based Education (CBE) Lab is primarily a Mac computer lab located in Building 19, Room 216. It supports the Visual & Performing Arts Division as well as the Business, Professional Studies & Workforce Education Division. The CBE Lab includes a graphics/web design lab, interpreter training lab, PC AutoCAD lab, test proctoring area, and open lab space for all currently enrolled students. A wide variety of graphics, multimedia, office, and Internet applications are available.

For more information, call 509-533-3418.

# **LIBRARY (SFCC)**

The Spokane Falls Community College Library is in the center of the campus and at the heart of the college's educational mission. It has traditionally been a busy and popular destination for students needing to study, read, check e-mail or just relax. During the library's enlargement and remodel (2004), particular care was taken to provide well-lit, comfortable reading and study spaces to maintain the library's central place in student life.

The library houses the principal campus computer center. Internet access and Microsoft Office software are available at more than 60 computer stations. SFCC students have been notably generous with their technology use fees to ensure the library has up-to-date equipment including a small collection of laptops available for checkout. Students can also access the Internet with their own computers via wireless network or through conveniently located ports.

Media collections include educational, feature and foreign films. All are available for viewing and classroom use, and some may be checked out. A growing collection of audio books supports ESL and developmental reading classes.

Library faculty and staff are highly regarded for friendly service and expert assistance in person, via telephone, e-mail and online chat. Library faculty teach classes and provide individualized instruction on campus as well as online. The library also maintains an extensive web site with resource guides and tutorials to assist students and the public with the research process.

For additional information, call 509-533-3800 or access the library at http://library.spokanefalls.edu.

# **Counseling and Special Services**

# **COUNSELING AND ADVISING**

Educational, career and personal counseling services are available to all students through the counseling centers at Spokane Community College, Spokane Falls Community College and the Institute for Extended Learning. Students may obtain professional counseling services prior to registration to plan their complete program of study.

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For more information, call the Counseling Centers at:

SCC	
SFCC	
Fairchild AFB Education Center	
IEL	
Hillyard Center	
Magnuson Building	
Academic	
Adult Education Center	
Change Point	
Northern Counties	
Pullman Center	509-533-4002

# **DISABILITY SUPPORT SERVICES (DSS)**

Community Colleges of Spokane has support service programs and centers for students who have documented disabilities and who are "otherwise qualified" for community college programs (as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act). Services may include academic, vocational and rehabilitation counseling and assistance with admission and registration. Because the nature and scope of services may vary between institutions, you should check with each institution's DSS office for details.

Academic accommodations and adjustments are available based upon individually determined needs and may include interpreters, assistive learning devices and technology, note takers, readers, scribes, materials and textbooks in alternate format, large print or Braille materials, priority registration, alternate testing, information and referral services. Other specialized services may be arranged on an individual basis.

To receive services, students are required to contact and provide documentation of their disability to the Disability Support Services (DSS) office at SCC, SFCC or the IEL. All inquiries and requests for services are considered private.

#### For more information:

SCC: 509-533-7169, TTY 509-533-8610, www.scc.spokane.edu/stsrv/csd/ SFCC: 509-533-4166, TTY 509-533-3838, www.spokanefalls.edu/Resources/DSS/ IEL: 509-279-6037, TTY 509-279-6092, www.iel.spokane.edu/DSS

# **MULTICULTURAL STUDENT SERVICES**

Each college has a Multicultural Student Services Office to assist multicultural community members with financial, academic and personal counseling. At SCC, this office is located in the Multicultural Center, Building 6, Room 115.

The SFCC Multicultural Student Services Office is located in Building 17, Room 130. The program provides a variety of services to multicultural students. Primary assistance is for academic and financial aid needs. The program also provides tutorial and career counseling to students.

SFCC organizes and offers a variety of diversity programs each year through the student organizations advised through this office. The clubs are the Red Nations Student Association, the African American Association and the MEChA Club.

The IEL has a Diversity Program which assists students from diverse backgrounds with financial, academic and career counseling. The office sponsors a variety of programs focusing on issues of diversity. The office is located in the IEL Magnuson Building Room 220D across from the SFCC campus.

For more information, call SCC, 509-533-8875; SFCC, 509-533-3546; or the IEL, 509-279-6081.

STUDENT SERVICES

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# STUDENT SERVICES

# **STUDENT EMPLOYMENT SERVICES**

SCC and SFCC offer part-time, full-time, seasonal and graduate job referral assistance online. Materials regarding job search and resume writing also are available. All services are free and accessible on a drop-in basis. For more information, call SCC Community, Career and Employment Services Office (Lair Building 6), 509-533-7249; SCC WorkSource, 509-533-8070; SFCC Career and Student Employment Center (SUB Building 17), 509-533-3545; SFCC WorkSource, 509-533-3540; or the IEL (Magnuson Building 27), 509-279-6065.

Work-study employment is offered to students who have applied for financial aid, expressed an interest in student employment on their FAFSA, and are eligible for the program. Institutional work-study employment is also available on campus for students who do not qualify for financial aid work-study. For more information, call the SCC Work-Study Placement Office (Building 50, Room 118C), 509-533-8007; or SFCC Career and Student Employment Center (Building 17, Room 226), 509-533-3540.

# **CAREER INFORMATION**

Career planning services at SCC include a number of computerized resources: career interest inventories, a scholarship database, WinWay Resume software and Internet access for students or community members to utilize for job search or career planning activities. Reference materials include career information files (over 600), vocational biographies, career planning guides, periodicals, college catalogs, books, Graduate Placement reports, and materials regarding job search and resume writing. Labor market trends, forecasts and projections are available on the computer and in written form.

For more information, call 509-533-8009. The SCC Community, Career and Employment Services Office (Lair Building 6 ) is a WorkSource Spokane affiliate site.

The SFCC Career Center, located in Building 17, Room 226, has a variety of resources available for obtaining occupational and educational information. Numerous software programs provide opportunities for self-assessment, as well as educational, occupational and scholarship information. Students have Internet access in the center for online registration and research pertinent to their education.

College, university and career and technical school catalogs and transfer guides are available in the center. Transfer advisers from area four-year colleges are available by appointment on a regularly scheduled basis. Printed resources in the center include vocational biographies, brochures, career planning guides and books. Labor market trends, forecasts and projections also are available, as well as videotapes describing careers, colleges and education programs. Scholarship information, in both printed and computerized format, is available for local, state and national scholarships. The SFCC Career Center is a WorkSource Spokane affiliate site.

For more information, call SFCC, 509-533-3540.

# **CAMPUS TOURS**

Community Colleges of Spokane welcomes students individually or in groups to visit the campuses, tour its facilities, and connect with faculty and staff.

For information regarding tours, call SCC, 509-533-TOUR and SFCC, 509-533-3542.

# SERVICEMEMBERS' OPPORTUNITY COLLEGE

Spokane Community College and Spokane Falls Community College are Servicemembers' Opportunity Colleges (SOC). Each college, through its actions, assumes its responsibilities of meeting the needs of an individual and immediate family members (wife, husband, children in domicile) serving in the Armed Forces in their quest for an educational experience. In order to meet this need, CCS has:

- admission policies that relate to the life conditions of the servicemember and eligible family members;
- adjusted residency requirements for the servicemember and eligible family members that hinder educational progress;
- provided special services to meet the special needs of service members and eligible family members.

Since mobility makes it unlikely that a servicemember can complete all degree program requirements at one institution, a SOC institution designs its transfer practices for servicemembers to minimize loss of credit and avoid duplication of coursework, while simultaneously maintaining the integrity of its programs. Consistent with requirements of a servicemember's degree program, a SOC institution follows the general principles of good practice outlined in the Joint Statement on the Transfer and Award of Credit. Each institution may be required to submit documentary evidence that it generally accepts credits in transfer from other accredited institutions, and that its credits in turn are generally accepted by other accredited institutions.

Call the Fairchild AFB Education Center, 509-533-8937; SCC Counseling, 509-533-7026; SFCC Counseling, 509-533-3525; SCC Veterans Affairs, 509-533-7027; or SFCC Veterans Affairs, 509-533-3504 for details regarding the services available while attending a SOC institution. (General guidelines are listed in the SOC Guide Handbook.)

#### TESTING

Assessment and placement is described in the Admissions section.

#### VETERANS

Information specific to veterans can be found in the Veterans Affairs section.

# International Students

# **OPPORTUNITIES FOR INTERNATIONAL STUDENTS**

Spokane Community College (SCC) and Spokane Falls Community College (SFCC) welcome the applications of students from other countries. Both colleges offer international students an opportunity to pursue a quality career/technical or liberal arts education and to live in an All-American city with a metropolitan population of more than 500,000 people. For students who wish to stay in the U.S. for study beyond a two-year degree, the community colleges prepare students for easy transition to four-year colleges and universities.

An important objective for Community Colleges of Spokane (CCS) is to maintain a diverse student population. International students from all countries are encouraged to apply to SCC or SFCC. The colleges support diversity by welcoming international students from around the world. Resident or international students interested in international programs can talk to the counseling staff or call the International Programs Office directly at SFCC, 509-533-3242; or SCC, 509-533-8659.

Through its strong academic programs, international students can complete the first two years of study at CCS then transfer to the four-year institution of their choice to complete a bachelor's degree, or international students may choose to enroll in one of nearly 100 specialized career and technical programs offered at SCC and SFCC.

International students have a very high rate of academic success at CCS and find that living and studying in Spokane is both rewarding and satisfying.

# INTERNATIONAL STUDENT ADMISSION POLICY

International students are admitted by the International Programs Office upon receipt of the following information:

- 1. A completed application form and \$40 application fee.
- 2. Evidence of high school graduation or equivalent.
- 3. English translation of high school and college-level transcripts (also include any U.S. transcripts).
- 4. Documented evidence of financial support for \$16.000 (U.S. Immigration and Naturalization Service requirement).

# **ENGLISH PROFICIENCY**

To be admitted to SCC or SFCC with unrestricted access to all non-English as a Second Language (ESL) classes, all nonnative speakers of English must demonstrate their proficiency in English. There are different ways to do this:

- Students may have unrestricted access to academic classes at SCC or SFCC with the submission of
  - TOEFL Score of
    - ▶ 500 Paper
  - 173 Computer
  - ▶ 61 iBT
  - IELTS score of 5.0
- Students who complete the intensive ESL program at SCC or SFCC may be unconditionally admitted to Community Colleges of Spokane institutions. In addition, English language proficiency can also be satisfied by program completion and a letter of recommendation from a U.S. Intensive English Language Program such as those at Eastern Washington University, Gonzaga University, University of

Washington, Washington State University, ESL language schools, and the American Cultural Exchange.

- Graduation from a U.S. high school.
- U.S. college transfer (a minimum of one complete quarter that includes one course equivalent to English 101 with a minimum grade of 2.0.)

If English ability does not meet any of the above criteria, but all other admission requirements have been met, the student can be granted conditional acceptance with the understanding that he/she will meet the English language requirements prior to official admission.

# ENGLISH AS A SECOND LANGUAGE (ESL) PROGRAMS

There are ESL programs at both SCC and at SFCC. Both include intensive programs that offer from 20 to 22.5 hours of ESL per week. In addition, they are specifically designed to prepare students for entry into college studies. By completing either of these programs, the student will receive an unconditional acceptance to SCC or SFCC without having to submit any outside test of English proficiency; no TOEFL required.

These programs are designed to raise students' English proficiency quickly, so the student can enroll in other non-ESL courses. In addition, both programs are designed to improve the full range of English language skills: reading, writing, speaking and listening.

The two ESL programs are:

- Spokane College of English Language (SCEL) at Spokane Community College
- Intensive English Language Program (IELP) and Bridge Program at Spokane Falls Community College

# SPOKANE COMMUNITY COLLEGE – SPOKANE COLLEGE OF ENGLISH LANGUAGE (SCEL)

The SCEL at SCC prepares students for entering Spokane Community College by quickly raising their English language proficiency. Call 509-533-8659 or 509-533-8885 for more information. This ESL program offers:

# **1. INTENSIVE/SUPER INTENSIVE ENGLISH**

This program is designed to improve overall competency in English. It prepares students for entry in Spokane Community College and Spokane Falls Community College programs and future university studies. Classes meet between 9 a.m. and 3 p.m. daily. There are three levels from elementary to advanced. Each level is 12 weeks long, and students move up based on progress within the class and final exams in writing, speaking, listening, reading and grammar. Students in this program receive 22.5 hours of class per week.

# 2. CERTIFICATE/DIPLOMA IN ENGLISH

This is a 12 or 24-week academic program for students seeking proficiency in English. This program is perfect for a student wishing to take international or U.S. exams. Each level is 12 weeks long. Students move up based on progress within the class and final exams in writing, speaking, listening, reading and grammar.

# 3. ENGLISH FOR ACADEMIC PURPOSES (EAP)

Spokane Community College has a partnership agreement with SCEL whereby students can study EAP courses at SCEL. Completing EAP meets English entry requirements for SCC undergraduate programs. Students in the EAP program are eligible to take one regular college credit course at SCC while they are completing their ESL studies. The college course can be selected from any of hundreds of courses offered each term. This program has a prerequisite of passing an English entrance test to qualify for this program.

- Students attending SCEL have the opportunity to participate in student activities at SCC: all college clubs, all college activities, and all college facilities;
- All classes are held on the campus of SCC.

# SPOKANE FALLS COMMUNITY COLLEGE – INTENSIVE ENGLISH LANGUAGE PROGRAM (IELP)

The IELP supports international students in the accelerated development of English language proficiency as well as academic and cultural competencies needed to succeed at both colleges of CCS as well as other institutions of higher education and/or in the private sector in the United States.

Methodology: This program provides a curriculum that is studentcentered and focuses on communicative competence as developed through authentic, practical interaction among students. Focus: The IELP is a four-level, 20-credit college-preparatory program established within the English Department of SFCC. It offers excellent, individualized instruction in Writing, Reading, Listening, Speaking, Grammar, Research and Study Skills. In addition, in the project-oriented English 195 "English in Action" class, students can earn college-level credit. Upon completion of the IELP, students are ready to begin regular college-level classes to earn a degree, complete a technical/professional program, earn a certificate, or just take a few classes before returning to their universities and careers in their home countries. Levels:

- High Beginner (50-level)
- Low Intermediate (60-level)
- Intermediate (70-level)
- Upper Intermediate/Advanced (80-level)

**Instructors:** All IELP instructors are SFCC English Department faculty who hold Masters and/or Ph.D. degrees and have extensive ESL teaching experience both at colleges and universities in the U.S. and abroad.

**Class Hours:** IELP classes meet daily from 9:30 a.m. to 3:30 p.m. for 20 hours per week. Because the program is part of SFCC's course offerings, all classes are on the same quarter system (10-12 weeks) as all other classes on campus.

Advising: The IELP provides personalized academic advising through our International Student Academic Advisers.

**Technology:** Cutting-edge software for language acquisition and computer resources are available within state-of-the-art classrooms and in the International Computer Lab (ILC).

**Facilities:** IELP students have full access to all SFCC facilities, e.g. Fitness Center, Library, Spartan Theater, Recreation Center, and all college activities.

**Integration:** Student involvement in the college, district, and community is promoted by means of Service Learning programs (incl. the International Peer Mentor program), campus clubs and organizations, including the International Club and Phi Theta Kappa, and involvement in community participation projects. In addition, most students take advantage of the Homestay program, which allows them to live with an American family.

**Contact:** International Programs, 509-533-3242 or 509-533-4113; Intensive English Language Program, 509-533-3581 or 509-533-3561.

# ACADEMIC REQUIREMENTS

International students must successfully complete 12 credits each quarter, maintain a minimum grade point average of 2.0 (C grade) and progress through an academic program at a reasonable rate. Students who do not meet the above requirements are placed on academic probation. Students who remain on academic probation for two consecutive quarters may be dismissed from the college.

# **EXPENSES**

Because individual tastes and habits vary greatly, it is impossible to predict exact expenses for attending SCC or SFCC; however, the minimum cost for a nine-month academic year at the community college is approximately \$16,000. This includes tuition, fees, books, supplies, health insurance, housing, meals, local transportation and personal expenses (costs are subject to change).

In 2009-10 the average education and housing costs for three quarters for international students were tuition and fees \$9,000; housing and meals \$5,000; miscellaneous \$2,000 for a total of \$16,000 for one academic year.

# FINANCIAL AID

U.S. financial aid is NOT available to international students and oncampus employment is limited. Therefore, students must provide their own financial resources for tuition, fees and living expenses.

International students are encouraged to participate in college workstudy programs. Work-study prepares students for future employment by providing experience with hiring, training, supervision and relations with the public and other staff members. It is a unique opportunity to earn while learning.

# **STUDENT VISAS**

International students admitted to SCC or SFCC are issued an I-20 form which must be presented at the U.S. Consular Office during the visa application process. In addition, the student should present documentary evidence of financial support and a passport which must be valid for at least six months. Other visa regulations apply. It is recommended

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that international students visit the U.S. State Department web site for further details, www.unitedstatesvisas.org

Call the International Programs Office, 509-533-3242 or 509-533-8659 for more information.

# **SPECIAL PROGRAMS**

SCC and SFCC offer several unique and important programs to support their international students. These programs offer opportunities for increased cultural exchange opportunities between SFCC/SCC students, Spokane residents and international students.

# **INTERNATIONAL PEER MENTORS PROGRAM**

The International Peer Mentors (IPM) program matches international students with American (resident) students in peer mentoring teams. This unique program provides peer support for internationals and Americans that enhances each student's access to intercultural experience, relationship and communication practice. In particular, the IPM program is an opportunity for international students to:

- Develop an international friendship.
- Improve English language skills.
- Gain a greater understanding of another culture.

# **COMMUNITY FRIENDS OF INTERNATIONAL STUDENTS**

The goal of Community Friends of International Students is to promote intercultural exchange and friendship between Spokane area residents and international students. Students and their community friends share leisure, family and community activities once a month for one to three quarters.

The Community Friends program provides international students with an additional point of contact within the Spokane community and offers a further opportunity for social exchange.

# HOUSING ACCOMMODATIONS

Several types of housing are available for international students attending SCC or SFCC. Students may apply to live with an American family through the Homestay Program or locate their own apartment.

For those interested in apartment living, CCS provides a housing list that includes commercial and home-sharing apartments available in locations convenient to the campuses. The web site www.LivingChoices. com is helpful in locating an apartment. Additional information is contained at the International Programs web site www.spokanefalls. edu/International.

The Homestay Program offers international students the opportunity to improve communication skills, experience American culture on a personal and daily basis and build a long-term relationship with an American family. Learn more about the American Homestay Program by visiting www.spokanefalls.edu/International or e-mail teresag@ spokanefalls.edu.

# **Campus Services**

# **BOOKSTORES**

Community Colleges of Spokane operates two bookstores – one in the Lair Student Center at Spokane Community College; the other in the Student Union Building at Spokane Falls Community College.

Students are encouraged to shop early in the store or order their textbooks online at bookstore.ccs.spokane.edu. Information regarding text availability is online.

Students attending CCS/IEL centers in Stevens, Ferry and Pend Oreille counties are served by the Northern Counties Books & More segment of the web site and the SFCC bookstore. The Crimson & Gray in Pullman serves students attending the Whitman County Center.

To select the correct texts in the bookstore students must have their class schedules in hand. In case of error or a change of class, refer to the bookstore refund policy supplied with purchase.

A textbook buy-back service is offered at the end of each quarter. Check online or with the bookstores for the exact dates. During these dates, students can use the bookstore web site to receive a quote for their textbooks or list books they want to sell to other students.

To find information regarding textbooks required for your classes, go to http://bookstore.ccs.spokane.edu/spokane

Current bookstore hours can be found online. For more information, call SCC, 509-533-7087 or SFCC, 509-533-3565. Northern county students should contact their local center or SFCC. Pullman students should call the Pullman Center, 509-332-2706; The Crimson & Gray

in Pullman, 509-332-1440; or the Barnes & Noble at the Bookie, Too! 509-334-3661.

# **CAMPUS PARKING/DRIVING**

Students, faculty, administration, college personnel, guests and visitors shall not stop, park, or leave a vehicle whether attended or unattended upon the campus without a parking permit issued pursuant to WAC 132Q-20-040, except guests and visitors who will be given a reasonable time to secure a temporary guest permit from the appropriate vice president or designee. Parking meters are also available for students, employees or guests to park on campus. Meters are located along SCC Building 1 and along Ralph Street in front of Building 15. For specific and detailed parking information, consult WAC 132Q-20 at http://apps.leg.wa.gov/WAC/default.aspx?cite=132Q-20 or go to www.scc.spokane. edu/?sec. Parking permits are available at the Cashier's Office on each campus. The schedule of parking fees and fines is posted on www. ccs.spokane.edu. CCS encourages carpooling and bus transportation whenever possible.

# CHILDCARE

Childcare services are available at CCS for the children of students. The programs charge childcare fees and accept children through self-pay, state and federal aid programs with year-around registration. Programs are state licensed and are Head Start and Early Head Start sites with infant, toddler and preschool classrooms. Head Start and Early Head Start are federally funded programs for families meeting enrollment guidelines. Full-time students receive priority for enrollment.

BIGFOOT CHILDCARE CENTER AT SCC is located north of the Health Science Building. Day and evening hours are available. For information, call 509-533-7170.

EARLY LEARNING CENTER AT SFCC, in the Human Services/Early Learning Center Building, also is a lab school for the Early Childhood Education program. For information, call 509-533-3624.

ADULT EDUCATION HEAD START CENTER, at 2310 N Monroe Street, offers limited full-day infant, toddler and preschool-aged child-care for students. For information, call 509-533-4650.

HILLYARD HEAD START CENTER, at 4410 N Market Street, offers limited full-day infant, toddler and preschool aged childcare for students. For information, call 509-533-8519.

EVENING CHILDCARE: Childcare services are located at Bigfoot Childcare Center at SCC. Operates Mondays-Thursdays and hours may vary. Serves infant through 12 years. Priority for enrollment is given to any PELL eligible student attending SCC, SFCC or the IEL. For information, call 509-533-8268.

# TRANSPORTATION

Bus transportation is provided by the Spokane Transit Authority (STA) through a variety of routes. STA buses typically arrive and depart on a half-hour basis on weekdays and every hour during evenings and weekends or according to STA's published bus schedule. At SCC, STA bus schedules are available in the Student Activities Office in the Lair Student Center and in the student services building. At SFCC, bus schedules are available in the Student Union Building at the Student-Funded Programs Office. At the IEL, bus schedules are available at the Lodge, Adult Education Center, Hillyard Center and Esmeralda Center. Bus passes are also available at a discounted rate in the cashier's office on a first come, first serve basis.

# STUDENT ACCIDENT AND SICKNESS INSURANCE

Optional student accident insurance or combined accident and sickness insurance coverage for the student or the student and dependents may be purchased at the time of registration. The insurance remains in force as long as the student remains enrolled in school and pays the premium each quarter. The student must be registered for 6 or more credits per quarter to be eligible.

Brochures describing the coverage are available at the SCC, SFCC or IEL Cashier's Office.

# **HEALTH CARE**

SCC has partnered with a private health care provider to offer health care to its students. SCC's clinic is open four days a week in the medical assistant lab in the Health Sciences Building (9). SCC offers mental health counseling in the Student Services Building (15). By showing their SFCC ID card, SFCC students can also utilize this SCC resource.

# 26 SAFETY

The well-being and safety of students, faculty, staff and visitors are of primary importance to CCS. Individuals are responsible for cooperating with one another to achieve a safe and healthful learning and working environment. For further details, refer to WAC 132Q at http://apps.leg. wa.gov/WAC/default.aspx?cite=132Q-94.

All accidents are to be reported on the Incident/Accident Report Form (CCS 1220), available from department secretaries in campus buildings and in the Security office.

# SECURITY

Security services for students and staff are provided by security officers on each campus. At SCC, the Security Office is in Main, Building 1, Room 149. At SFCC, the Security Office is in Student Union Building, Room 125.

Thefts, accidents, lost and found, vehicle jumpstarts, key lockouts or any other inquiries or incidents related to security should be directed to this office. Security also coordinates escort services for students and staff to their automobiles or across campus.

At SCC, call 509-533-8624 weekdays or 509-475-7035 (24 hours), or visit www.scc.spokane.edu/?sec.

At SFCC, call 509-475-7040 at any time (24 hours).

# HOUSING ASSISTANCE

Community Colleges of Spokane does not provide living accommodations for students. Students may call the Student Activities Office at SCC 509-533-7081, or the Student-Funded Programs Office at SFCC, 509-533-3553, for information. Students also may consult the housing bulletin board, local newspapers or rental agencies for listings and log onto www.scc.spokane.edu/?stacthousing. Parents are encouraged to help the prospective student find acceptable housing within the Spokane area.

The following housing policy has been adopted by the CCS Board of Trustees:

"Persons interested in listing rental property with CCS are required to sign the Equal Availability of Housing card, which in turn will be posted on the college housing bulletin board.

"If a complaint is made to the Washington State Board Against Discrimination and said board finds that discriminatory practices have been in effect, the services of the college will be denied the property owner and the listing of the property withdrawn until there is a proper showing that such practices have ended."

CCS does not assume responsibility for independent housing facilities used by students.

# **Student Life**

# **STUDENT CENTERS**

Spokane Community College's Lair Student Center is the center of student activities and campus life. Areas available for student use include a cafeteria and deli, game room, bookstore, lobby lounge, auditorium and several meeting rooms. The Community, Career and Employment Services Office is located off the main lobby of the Lair. Orlando's, a student-operated restaurant located in Building 1, offers excellent food at very reasonable prices. The restaurant is a training area for culinary arts students. Counseling and financial aid services are located in SCC Buildings 15 and 50, respectively.

The hub of Spokane Falls Community College's student activities is the Student Union Building centrally located on campus. The SUB features a main lounge area with a fireplace, dining area with Cyber Cafe, recreation center with computer stations, six-lane bowling alley, several conference rooms, college bookstore and student services area. Student services include admissions and the Registrar's Office (student records); advising, assessment and testing; career center; cashier; counseling; disability support services; financial aid; veteran affairs; international student services; multicultural student services; parking permits; Running Start office; student-funded programs and activities; work-study/placement; and the offices of the vice president of student and administrative services, dean of student services, and the associate dean of student life.

The Institute for Extended Learning's Colville Center houses a student center that includes an activity room, two study rooms, student government and journalism offices, a kitchen and cafeteria. The student services area includes the admissions/registration office, counseling center, testing, financial aid information, cashier, bookstore and disability support services. At the Pullman Center, student services include counseling, admissions and registration, financial aid information and a student lounge. The Newport Center houses a student activity room, counseling, admissions/registration, financial aid information and student government offices.

# **STUDENT GOVERNMENT**

All enrolled students of SCC, SFCC or the IEL are members of the associated students. The SCC Associated Student Council, which is composed of two elected officers, four appointed executive officers, and five appointed senators, determines student government decisions at SCC. A seven person Student Activities Council is responsible for bringing co-curricular programs to the SCC campus.

Government action for SFCC Associated Students is determined by the College Student Senate, consisting of two elected officers, six appointed officers, four appointed senators (representing geographical districts), one appointed administrator and one elected faculty representative. The Student Council includes representatives from all campus clubs and is responsible for planning student programs and activities.

At the IEL, each center has its own student government structure. This decentralized structure allows each center to have a student government that meets its needs and has the flexibility to immediately respond to local student concerns. There are student governments at the AEC, Colville, Hillyard, Pullman, Newport, Ione, Inchelium, and Republic Centers.

For additional information, call SCC, 509-533-7081; SFCC, 509-533-3553; IEL Magnuson Building, 509-279-6081; IEL Colville Center, 509-279-6700; IEL Republic Center, 509-775-3675; IEL Newport Center, 509-447-3835; IEL Inchelium Center, 509-722-3702; IEL Hillyard Center. 509-533-8580; IEL Adult Education Center, 509-533-4600; IEL Pullman Center, 509-533-4002; and IEL North Pend Oreille Center, 509-533-4290.

# **STUDENT ACTIVITIES**

Student tuition includes services and activities fees. This portion of tuition provides funding for athletics, clubs, organizations, student government, and financial aid on each college campus.

Student activities within CCS are conducted to promote educational, cultural, social and recreational programs. These programs are planned, coordinated and conducted by students to supplement classroom-learning experiences throughout the college year.

There are a wide variety of clubs and organizations that relate to many different special interests (i.e., drama, multicultural, service learning, single parents, etc.) as well as organizations relating to instructional areas (i.e., hearing impaired, journalism, music, photo, etc.) Membership in these student clubs and organizations is open to all students. Detailed information for clubs and organizations is available in the Student Activities Office in the student centers throughout CCS.

For more information, call SCC, 509-533-7081; SFCC, 509-533-4197; IEL Magnuson Building, 509 279-6081; IEL Colville Center, 509-279-6700 or 509-684-3138; IEL Newport Center, 509-533-8301 or 509-447-3835; IEL North Pend Oreille Center, 509-533-4290 or 509-442-4290; IEL Republic Center, 509-533-8728 or 509-775-3675; or IEL Pullman Center, 509-533-4002 or 509-332-2706.

# **STUDY ABROAD**

SCC and SFCC are committed to offering students the opportunity to study abroad as part of their international education. Study Abroad provides an excellent opportunity to live in another country and experience its culture, while earning college credit.

Students may choose from a variety of study abroad opportunities in all parts of the world and under a range of program options: United Kingdom, Spain, Japan, Canada, Ireland, and New Zealand. Programs in other areas of the world also are available occasionally. For information, call the Study Abroad contact in the International Programs Office at SFCC, 509-533-4131; or SCC, 509-533-8201; or by e-mail, teresag@ spokanefalls.edu. Also see the Study Abroad web site link: www.spokanefalls.edu/Programs/StudyAbroad/Home.aspx.

# **INTERNATIONAL CLIMATE ON CAMPUS**

Students can pursue an SFCC International Studies Pre-major or International Business Certificate program (consult a counselor or adviser for additional information).

Students at SCC and SFCC have the opportunity each quarter to participate in the International Peer Mentors through an International Programs and Service Learning partnership program. For information,

# STUDENT SERVICES

# contact: SCC, 509-533-8659 or SFCC, 509-533-3242.

Students have the opportunity to study and work with teachers and students from many countries. Teachers from Bangladesh, China, Columbia, Cypress, France, Germany, Hungary, and Japan have taught for SFCC.

# **STUDENT PUBLICATIONS**

Legends, SCC's literary magazine, is published every spring by the students in the literary production class. Featuring prose, poetry and art, the magazine accepts submissions from students, faculty and alumni. Each year, Legends presents a collection of works appropriate to that year's vision and theme. Legends has received local, state, and regional awards since its creation in 1987.

The Sasquatch Times is the bi-weekly newspaper produced by students at SCC. It provides students an opportunity to gain news gathering, writing, editing, photography, layout and publishing experience.

The Wire Harp, SFCC's literary magazine, is published each spring. The magazine's editorial staff is composed of SFCC students. Submissions of poetry, prose, photography and graphic art are accepted in January each year.

The Communicator, SFCC's official student newspaper, gives students a chance to write about news, arts and entertainment, features, sports and opinion for the SFCC community while building a professional portfolio. Students produce the full-color, bi-weekly tabloid, giving them the opportunity to gain relevant experience in graphic design, page layout, photography and management. The Communicator regularly enters and places in national Associated Collegiate Press competitions and attends conferences in cities such as Los Angeles, St. Louis, San Diego and San Francisco. In 2009, the paper took fourth place in the nation at the ACP conference in Austin.

Journalism students also produce audio documentaries, videos, and podcasts on Communicator Online, located at www.spokanefalls.edu/ communicator. In 2009, the ACP awarded Communicator Online its Online Pacemaker award, considered the Pulitzer Prize of collegiate journalism.

The Bigfoot Review: A Creative Arts Magazine is published by the students at the IEL's Pullman Center. It provides students with an opportunity to write and publish their poems, short stories, photographs, and illustrations. It is published a minimum of once per year and gives students experience in preparing a publication including layout design, writing, editing, teamwork and meeting deadlines.

# **INTRAMURAL SPORTS**

Intramural sports are a valuable, added component to student life and play an important role in the total student experience at CCS. Participation in intramural sports will make for a more rewarding and enjoyable collegiate experience. It adds another dimension to student life away from the rigors of the classroom and allows for extracurricular social interaction. Intramural activities help promote and improve physical fitness, self-esteem and are a great way of just having fun while attending college. CCS offers a variety of intramural sports to students during the fall, winter and spring quarters. In addition, open recreation time is provided daily in the swimming pool at SCC and the gymnasiums at SFCC and SCC for students and staff.

# **INTERCOLLEGIATE ATHLETICS**

The athletic program gives full-time students at both colleges an opportunity to participate in competitive intercollegiate sports in the Northwest Athletic Association of Community Colleges. Each year, Bigfoot teams rank in the top 10 in a variety of NWAACC sports. Men's teams compete in cross-country, basketball, track, golf, tennis, soccer and baseball; women's in volleyball, cross-country, basketball, track, golf, tennis, soccer and softball.

# **FITNESS CENTER**

Students, faculty and staff have access to fitness centers at SCC and SFCC. These state-of-the-art facilities offer cardiovascular conditioning, strength training and flexibility programming. Students may register for either a 1-credit fast fitness or a 2-credit cross training class. Grading is based on the total hours of exercise time accumulated during the quarter.

Both fitness centers have a dress policy that is designed to help keep equipment clean and foster a non-intimidating environment. The aim of fitness center staff is to provide an educational and motivating environment in which to achieve individual exercise goals. Instructors are on hand to help develop personal exercise programs and conduct individual fitness assessments. These assessments include testing body composition, blood pressure, flexibility, aerobic fitness and muscular strength. There also is an opportunity for physically challenged individuals to exercise on a variety of specialized machines.

All fitness center users pay a small quarterly lab fee that helps provide a means to maintain equipment and for the purchase of new machines. For more information, call SCC, 509-533-7280 or SFCC, 509-533-3488.

# WELLNESS PROGRAM

The CCS physical education, athletics and recreation department conducts a Wellness Program geared to meet the needs of CCS students. The Wellness Program focuses on educating, motivating and directing students toward positive, fitness-oriented, healthful lifestyles. Information is available on diet, nutrition and exercise. Fitness and wellness testing is available by appointment for body composition measurement, blood pressure, flexibility and nutrition analysis. Program goals are to reduce the risk of disease and injury and enhance the quality of life for students.

A variety of activities are offered and geared to meet individual needs. Activities include organized classes (credit and noncredit) and open facility usage. Classes range from basic fitness to yoga, jogging, cross training, karate, weight training and fast fitness. Facilities are available for student use during open scheduled hours. This includes locker/ shower rooms, swimming pool (SCC), indoor/outdoor tracks, gymnasiums, trails, tennis courts and athletic fields.

The Wellness Challenge incentive program offered each year is designed to encourage student participation in health, fitness and wellness-related activities and runs from September 1 to August 31. Both colleges have information, specific details and forms needed for participation.

For more information, call SCC, 509-533-7212 or SFCC, 509-533-3816.

# Student Rights and Responsibilities

# **STUDENT CODE OF CONDUCT**

Community Colleges of Spokane has adopted a student conduct code and rules for enforcement. All students should familiarize themselves with the code, which can be found online at http://apps.leg.wa.gov/wac/default.aspx?cite=132q-30.

The student code of conduct is available in the offices of the vice president of student and instructional services at SCC, the associate dean of student-funded programs at SFCC and the dean of student services at the IEL.

In addition, CCS follows all applicable federal and state laws regarding the prohibition of the use and possession of controlled substances and alcohol by any student on district-owned or used facilities, grounds or motor vehicles and in any college participant activity on or off campus.

# **STUDENT RIGHT TO KNOW**

Community Colleges of Spokane complies with a variety of state and federal requirements concerning providing information to students and prospective students regarding campus crime statistics and security, undergraduate completion and graduation rates, athletic information including expenditures and revenue, and participation by team and gender.

Detailed information is available at www.ccs.spokane.edu/future/ important/righttoknow.aspx.

# **STUDENT RECORDS (CONFIDENTIALITY)**

Public Law 93-380, the Family Educational Rights and Privacy Act of 1974 (FERPA), requires that CCS adopt guidelines concerning the right of a student to inspect his or her educational record.

#### **RELEASE OF PERSONALLY IDENTIFIABLE RECORDS**

The college shall not permit access to or the release of educational records, or personally identifiable information contained therein, other than published "directory information" without the written consent of the student, to any party other than the following:

 Administrative/support staff and college faculty when information is required for a legitimate educational interest within the performance of their responsibilities to the college, with the understanding that its use will be strictly limited to those responsibilities.

- Federal and state officials requiring access to educational records in connection with the audit and evaluation of a federally or statesupported educational program or in connection with the enforcement of the federal or state legal requirements which will not permit the personal identification of students and their parents to other than those officials. Such personally identifiable data shall be destroyed when no longer needed for such audit, evaluation or enforcement of legal requirements.
- Agencies, such as the National Student Clearinghouse, or individuals requesting information in connection with a student's application for, or receipt of, financial aid.
- Organizations conducting studies for, or on behalf of, the college for purposes of developing, validating or administering predictive tests, administering student aid programs, and improving instruction. Such studies shall be conducted in such a manner that will not permit the personal identification of students by persons other than representatives of such organizations and such information shall be destroyed when no longer needed for the purposes for which it was provided.
- Accrediting organizations in order to carry out their accrediting functions.
- Any person or entity designated by judicial order, or lawfully issued subpoena, upon condition that the college makes a reasonable effort to notify the student of all such orders or subpoenas in advance of the compliance therewith (unless the order or subpoena specifically orders the student not be notified). The Patriot Act legislation requires that students will not be notified of such orders or subpoenas.
- Information from educational records may be released to appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of a student or other person(s).
- Spokane Community College, Spokane Falls Community College and the Institute for Extended Learning are part of District 17, CCS. For that reason educational records may be shared among the three entities for the purposes of admission, registration, library access, financial aid and billing.

The term "directory information" used in WAC 132Q-02-380(5) is defined as: information contained in an educational record of a student that would not be generally considered harmful or an invasion of privacy if disclosed. It includes, but is not limited to, the student's name, address, telephone listing, electronic mail address, photograph, date and place of birth, major field of study, dates of attendance, grade level, enrollment status (e.g., undergraduate or graduate; full-time or part-time), participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees, honors and awards received, and the most recent educational agency or institution attended by the student.

Verification of enrollment is given.

Students may request in writing that the college not release directory information except through written notice to the Admissions/Registration Office.

CCS registrars' offices will assist students who want to inspect their records. Records covered by the Family Educational Rights and Privacy Act (FERPA) will be made available within 45 days and the college may charge reasonable fees for preparing copies for students. This includes records that are kept in the following offices: admissions, registration, financial aid, cooperative work experience, placement, veteran services, cashiering, sponsored programs, student activities and intercollegiate athletics. The college reserves the right to have a college representative may offer interpretation of the data within the record.

Some records may be withheld by the college. For example, academic transcripts are routinely withheld if the student has a financial obligation to the college. Medical records may be released to the student's physician rather than to the student. Students may not inspect financial information submitted by their parents, confidential letters associated with admissions, and records to which they have waived their inspection rights. In the event a record contains information about other persons, the college will release only the portion of the record that pertains to the student.

The college will not release records that are not owned by the college. In addition, the U.S. Department of Defense has authorized branches of the U.S. military to access directory information from U.S. colleges for recruitment purposes. Directory information under this provision, called the "Solomon Act," includes name, address, telephone listing, date and place of birth, level of education, academic major, degrees received, and the educational institution in which the student most recently was enrolled. Students who object to the release of the above information to military recruiters may request that this information not be released by written notification to the appropriate CCS Registrar's Office.

#### **REQUESTS AND APPEAL PROCEDURES WAC 132Q**

To obtain information on the process to contest the contents of your education records, ask for a copy of Student Rights and Responsibilities at the admissions or registration offices at SCC, SFCC, IEL or go to http://apps.leg.wa.gov/WAC/default.aspx?cite=132Q-02-370.

# FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 (FERPA) HEARING PROCESS

Upon examination of records, a student who believes that his/her record is inaccurate or misleading can request a formal hearing. Requests for a hearing should be directed in writing to the Registrar's Office at each college. When a date, time and place for the hearing have been established, a student may present evidence at the hearing and be represented by an attorney, at the student's expense. The hearing panel will include the vice president of enrollment services and student development or other appointed designee and the student's adviser/instructor. The hearing process does not replace other processes for student grievances. For example, a grade appeal will be addressed through the Student Grade Appeal procedure in this catalog.

The decision of the hearing panel will be based solely on the evidence presented at the hearing. A written summary of the hearing will be prepared and distributed to all parties. The summary will include the reasons behind any decisions made by the hearing panel. The student's records may be amended in accordance with the ruling of the hearing panel.

A student may add comments to his/her record if he or she is not satisfied with the ruling of the hearing panel. Such comments will be released whenever the records in question are disclosed. For example, an explanatory letter from the student may accompany a transcript.

Students who believe the hearing panel results are in error may contact the United States Department of Education, Room 4074 Switzer Building, Washington DC 20202.

# ACCESS TO STUDENT RECORDS

Transcripts are a cumulative record of a student's grade. Transcripts are a legal document of enrollment at CCS and are maintained forever.

#### TRANSCRIPTS OF CREDITS

In compliance with the Family Educational Rights and Privacy Act of 1974, a student's grade transcript will be released only upon written request to the Cashier's Office. The request must include the student's full name, maiden name if applicable, approximate last date of attendance, student identification number, student's signature and address(es) to which the transcript(s) should be sent.

There is a \$3 fee per each official transcript requested. Students enrolled at the IEL, SCC or SFCC who are requesting an official transcript be sent from one District 17 unit to another District 17 unit will not be charged the transcript fee.

Official, sealed transcripts are required by other institutions when a student transfers. Official transcripts will not be released if the student has not fulfilled all financial obligations to the college.

#### TRANSCRIPTS FROM OTHER SCHOOLS

SCC and SFCC do not issue or certify copies of transcripts from other institutions. Transcripts reflecting a student's previous college education that have been submitted to the college as a requirement for admission become part of the official file and cannot be returned to the student. Any student desiring transfer of credits earned elsewhere must order official transcripts from the institution where the credits were taken.

# **COMPLAINT PROCEDURE**

Community Colleges of Spokane (CCS) has established procedures to assist students who feel they have a complaint or concern relating to an action by a member of the CCS community. It is the belief and practice at CCS that the best way for students to address concerns is to first meet with the employee involved and attempt to resolve the concern. Students are encouraged to contact the vice president of student services at SCC or SFCC, or the Dean of Student Services at the IEL regarding complaint procedures (CCS Administrative Procedure, 3.40.01-D Student Concerns).

# **Programs of Study**

Students have access to a wide variety of educational programs at Spokane Community College (SCC), Spokane Falls Community College (SFCC), and the Institute for Extended Learning (IEL). A student may choose to complete the first two years of four-year degree programs, select among career and technical program offerings, or upgrade skills in preparation for work or college.

In order to give students an idea of some of the possibilities open to them, a number of suggested programs of study are provided on the following pages. The programs outlined are intended to provide general information. Students should seek detailed information from the campus Counseling Center or Transfer Center.

Students who plan to transfer to a four-year institution after completing the first two years at SCC or SFCC are strongly advised to consult with the community college counselor or academic adviser as well as the four-year institution they plan to attend. Requirements may vary according to the program and transfer institution.

More detailed information about the following can be found on subsequent catalog pages.

# **DEGREE AND CERTIFICATE REQUIREMENTS**

Transfer degrees include Associate of Arts (AA), Associate of Science-Transfer (AS-T), Associate of Applied Science-Transfer (AAS-T), Associate of Fine Arts (AFA). See Transfer Degree Programs for more details and Major Related Program degrees.

Career and technical degrees include the Associate in Applied Science (AAS) in a particular state-approved career and technical program. Career and technical certificates also are offered in state-approved programs and Certificate in Fine Arts (CFA) is also offered. See Program Outlines for more details.

# **ADULT EDUCATION AND TRANSITIONAL STUDIES**

Adult Education and Transitional Studies include Literacy/Pre-GED, Adult Education Workplace Success Skills, General Educational Development (GED), High School Completion, English as a Second Language, Read Right<sup>®</sup>, College Prep, PACE Services, SEER Program, and Families That Work.

# **BASIC STUDIES**

Other studies include developmental education and college level English as a Second Language (ESL) courses at SCC and SFCC.

# **CONTINUING EDUCATION**

Continuing Education Programs are offered by SCC, SFCC and the IEL. They consist of courses and special programs designed to provide a wide range of learning opportunities for people in the communities served.

# Transfer Degree Programs DIRECT TRANSFER AGREEMENTS-ASSOCIATE OF ARTS

The Direct Transfer Agreement (DTA) Associate Degree — called the Associate of Arts (AA) is the community college degree designed to transfer to most bachelor of arts degrees at all public and many private Washington four-year institutions. In order for the agreement to be valid for transfer, however, it is essential that the degree be completed. Otherwise, each course taken may be evaluated by the receiving institution separately, and some courses may not be accepted for transfer that would have been with a completed degree. For this reason students are strongly advised to complete the appropriate transfer degree prior to transfer.

Transfer guides are available from counselors and at the SCC and SFCC Transfer Centers. Students planning to transfer should consult these guides as well as information provided by the four-year institutions. Completion of recommended courses in a pre-major for transfer does not necessarily assure a student admission to a four-year institution or a specific program. Some colleges use screening procedures (cumulative GPA, test scores, major GPA, etc.) for acceptance into certain majors and programs.

Many four-year institutions have an admissions requirement of two years of a single foreign language in high school or two to three quarters of a single foreign language in college. Additional foreign language courses may be required for graduation. Students should check this requirement carefully for the institution to which they plan to transfer. Lower-division major requirements vary among four-year schools. Therefore, students should consult the four-year institution to which they plan to transfer for specific program requirements. Careful planning is important in order to meet specific requirements.

Students planning to earn an AA or AS-T degree must meet minimum standards of preparation, which includes a math proficiency requirement. Those whose records and test scores indicate a need for additional preparation may be required to complete preliminary work in the college preparatory/developmental program.

For specific information on AA and AS-T degree requirements, refer to the Transfer Program Outlines. For descriptions of courses, please refer to the Course Descriptions section.

For most majors in the arts, humanities and social sciences, the Direct Transfer Agreement provides the best pathway. Degrees based on the DTA – degrees structured under the DTA umbrella – provide:

- Priority consideration in the admissions for most humanities and social science majors in most four-year institutions ahead of nondegreed transfers.
- Completion of most or all lower division general education requirements.
- Credit for all courses completed within the DTA up to and in some cases beyond 90 credits.
- Opportunity to explore several fields of study through the category of up to 25 credits of elective courses.
- Opportunity to complete prerequisites for a future major.

# **RECIPROCITY AGREEMENT**

Washington community and technical colleges (CTCs) offer reciprocity to students transferring within the CTC system who are pursuing the Direct Transfer Agreement (DTA) degree or the Associate in Science-Transfer (AS-T) degree. Students who completed an individual course that met distribution degree requirements or fulfilled entire areas of their degree requirements at one college will be considered to have met those same requirements if they plan to complete the same degree when they transfer to another community or technical college in Washington. These degree requirements include Communication Skills, Quantitative Skills, or one or more Distribution Area requirements. Students must initiate the review process and must be prepared to provide necessary documentation. For complete information, students should contact an academic adviser at SCC, SFCC or IEL.

# DIRECT TRANSFER AGREEMENTS/MAJOR RELATED PROGRAMS

To help transfer students better prepare for the junior year, two-year and four-year institutions are working together to create transfer associate degrees outlining the appropriate courses in order for students to be well prepared to enter the major upon transfer – MRP degrees. MRP degrees follow either the DTA/Associate of Arts format or the Associate in Science-Transfer format.

Several MRP degrees follow the DTA guidelines and thus share the same benefits as described above, but provide specific preparation for the specific majors identified:

- Associate in Biology DTA/MRP
- Associate in Business DTA/MRP
- Associate in Math Education-DTA
- Associate in Pre-Nursing DTA/MRP
- Associate in Elementary Education DTA/MRP

Students interested in learning more about any of the MRP requirements in any specific area should seek advising from experts in those disciplines, counselors or the SCC and SFCC Transfer Centers. Students completing one of these MRPs will have that specific degree posted on their transcript; the more general DTA will not be posted.

# ASSOCIATE OF SCIENCE-TRANSFER

The Associate of Science-Transfer (AS-T) degree is intended for students majoring in science who wish to transfer as juniors to four-year institutions in Washington.

Students who earn this degree will transfer with about half of the lower division general education courses required by four-year institutions. Remaining general education courses may be taken after transferring.

This degree allows students to concentrate on fulfilling pre-major coursework in their intended field of study. A number of different options are offered with two basic tracks.

Track 1 involves:

 Biological science, environmental/resource sciences, chemistry, geology and earth science.

Track 2 involves:

- Computer science, physics and atmospheric science.
- Engineering, with the following specific MRPs:
  - AS-T in Bioengineering and Chemical Engineering MRP
  - AS-T in Computer and Electrical Engineering MRP

• AS-T in Mechanical/Civil/Aeronautical/Industrial/Pre-Engineering Several MRP degrees follow the AS-T guidelines and thus share the same benefits as described above, but provide specific preparation for the specific majors identified:

- Associate in Chemistry Education AS-T Track 1
- Associate in Biology Education AS-T Track 1
- Associate in Physics Education AS-T Track 2
- Associate in General Science Education AS-T Track 1

For more specific information on these MRPs, consult with an instructor in the discipline, a counselor or the SCC and SFCC Transfer Centers.

# **ASSOCIATE OF FINE ARTS (AFA)**

A primary purpose of the Associate of Fine Arts is to offer a program of study applicable for transfer to a four-year institution. While the Associate of Fine Arts (AFA) degree does not satisfy the general education requirements for most four-year institutions, all courses are transferable. Students should consult the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

The AFA degree prepares students to transfer to a four-year institution with a minimum of 90 credits, which include many general university requirements. Students may earn an AFA in art. Students are encouraged to meet with an art adviser before enrolling.

For more information, see Art (Associate of Fine Arts) in the program outlines section of this catalog.

# **ASSOCIATE OF APPLIED SCIENCE-TRANSFER**

Some career and technical programs of study may offer an Associate of Applied Science-Transfer (AAS-T) degree that is designed to provide transfer opportunities for students desiring to continue on towards achieving a baccalaureate degree at specific universities. An AAS-T degree is a degree awarded in a career and technical discipline that contains a minimum of 20 transferable general education credits in communications, quantitative reasoning, and social science, humanities or science. Not all programs offer the AAS-T. Please consult with a program faculty member or an academic adviser/counselor to determine if your program of study offers an AAS-T and into which four-year institutions.

# Career and Technical Programs

Career and technical education programs at Community Colleges of Spokane provide avenues for students to enter high-skill and potentially high-wage occupations or transfer to university-level technical education programs. These programs are developed with business and industry input and continued oversight from professionals actively employed in the occupations. Students are able to earn certificates of completion and Associate in Applied Science degrees in more than 100 professional and technical areas. Additionally, the colleges' focus is on extended learning opportunities for students who are upgrading skills due to technological changes, seeking new occupations or re-entering the workforce.

Industrial, professional and service organizations partner with the colleges to provide work-based learning opportunities for career and technical students, enabling them to apply skills learned in an actual job setting. These opportunities also reinforce social and community focused behaviors that lead to productive and responsible citizens. For more information, see the Cooperative Education/Work Experience section of this catalog.

# **ASSOCIATE IN APPLIED SCIENCE (AAS)**

The Associate in Applied Science (AAS) degree candidate in a career and technical area must complete a minimum of 90 credits in program requirements with a grade point average of 2.0 or better. Many programs require more than 90 credits. The candidate must earn at least 30 credits from Community Colleges of Spokane with the last quarter completed in residence.

A minimum number of credits must be completed in related instruction. Related instruction areas are defined as communications, computation and human relations/leadership. A minimum of 3 credits must be completed in each area. Safety and hygiene requirements must be completed. SCC and SFCC have different requirements that must be met and are outlined in Career Planning Guides and in the program outlines section of this catalog.

A student possessing proven competencies in the program requirements and/or related instruction area may be granted advanced standing. The appropriate administrator must approve advanced standing placements.

All credits and grade points received from the time the student enrolls in the program are used for GPA calculation.

# **CAREER AND TECHNICAL CERTIFICATES**

Career and Technical Certificates of at least three quarters in length also include a specified amount of credits in related education. The three areas of related instruction are computation, communications and human relations/leadership. A student possessing proven competencies in these areas may be granted advanced standing. The appropriate instructional dean must approve advanced standing placement. These courses also may be footnoted with the following: "This related education requirement may be substituted with any course, or combination of courses, approved by the instructional dean." A minimum grade point average of 2.0 must be maintained. The candidate must earn at least 30 credits from CCS, with the last quarter completed at the college awarding the certificate.

# **CERTIFICATE IN FINE ARTS (CFA)**

This certificate program provides an opportunity for the student to concentrate his or her program of study in fine arts. The program is suitable for those who wish to pursue art as a profession. The program is not designed with an emphasis on transfer, although all courses in the program are transferable.

A candidate for a Certificate in Fine Arts (CFA) must complete a minimum of 96 credits with a grade point average of 2.0 or better. The program can be completed in two years. However, a longer time span may be necessary for maturation of skills. Students must submit a portfolio and participate in an exhibition during their final quarter. Art faculty will work closely with students to build a strong portfolio. A review committee of faculty will evaluate the artwork before final approval to recommend awarding a Certificate in Fine Arts.

For more information, see Art (Certificate in Fine Arts) in the program outlines section of this catalog.

# PROGRAMS OF STUDY

# **ADDITIONAL PROGRAMS**

In addition to the previously described programs, CCS offers:

- Aviation/Airway Science at SFCC, which through an agreement with the University of North Dakota allows students to complete their first two years earning their private and commercial pilot's licenses and multi-engine and instrument ratings before transferring to UND to complete their bachelor of science degree.
- Army Reserve Officers Training Corps (ROTC)-Military Science through a cross-enrollment agreement with Eastern Washington University.
- College Level English as a Second Language for students who have been admitted to college credit programs and who are non-native speakers of English.

# Degree and Certificate Requirements

# TIME TO DEGREE

A student is eligible to graduate either (1) by completing the degree requirements in effect at the time of initial enrollment within four academic calendar years, or (2) by completing the requirements in effect at the beginning of the last continuous (summer quarter excepted) enrollment or (3) by completing the most recent requirements in effect during the quarter of graduation.

A candidate for a degree may include courses newly approved to meet degree requirements even though the course approval comes after the credit has been earned.

In instances where changes in professional degrees and certificates make the above guidelines inappropriate, the respective division administrator, working with the individual student, shall determine which degree requirements to follow.

# **GRADUATION REQUIREMENTS**

Students who plan to receive a two-year degree or a one-year certificate must file a Graduation Application with the graduation evaluator. Students should apply for a degree when they have completed 50% of the degree requirements.

Filing a Graduation Application provides the student with the opportunity to review and check his or her degree or certificate requirements. It allows the student an opportunity to plan or change his/her course schedule to ensure completion of all requirements. It also ensures that all degrees/certificates earned will be correctly posted to the student's transcript.

Degrees/certificates will not be awarded if the student has not fulfilled all financial obligations to the college.

# Adult Education and Transitional Studies

Adult Education and Transitional Studies programs are designed to meet the employment and precollege educational needs of students 19 years or older regardless of previous educational background or ability. Courses are individualized to better serve the special needs of each student. All day and evening courses are offered on a continuous, open-enrollment basis during the year at more than 20 community sites, public schools and special institutions throughout the district.

# LITERACY/PRE-GED

Adult education offers students an opportunity to improve literacy skills through a holistic, integrated approach to reading. In reading lab classes, learners participate in group work and individualized instruction to improve word recognition, vocabulary skills and comprehension. In addition to improving literacy, the program also emphasizes necessary job skills and basic computer skills.

Adult education classes in pre-GED prepare students for GED coursework in the areas of mathematics, writing, reading, social studies and science. The program also focuses on improving students' potential for employment and developing computer knowledge and skills. For more information, call 509-533-4600.

# ADULT EDUCATION/WORKPLACE SUCCESS SKILLS

Course components include: workplace reading skills (comprehension, main points, summarizing), workplace writing skills, computer basics (Word, Excel, PowerPoint and keyboarding), learning styles assessment (how to apply this information to the workplace), soft skill job

strategies or "hidden rules of the workplace" (communications and real work scenarios), job search tools (cover letters, resumes, interviewing skills, dress for success, business letters and memos), career planning and vocational assessment, self-concept and personality styles in the workplace.

For more information, call 509-533-4600.

# **GENERAL EDUCATIONAL DEVELOPMENT (GED)**

Adults wishing to enroll in credit programs offered by community and technical colleges must have a high school diploma or GED certificate. State community colleges automatically accept students who have passed the GED exam. If you have a GED certificate, you may qualify to enroll in College Prep. College Prep is a program designed to help successfully transition students who attain a GED to college level coursework.

GED classes offer instruction to adult learners 19 years of age and older in the following areas: mathematics, science, social studies, writing skills, literature and the arts. Learners ages 16 through 18 may be admitted to the GED program if they have an Office of the Superintendent of Public Instruction (OSPI) release from the school district where they reside.

GED certificates are issued by the OSPI and represent an alternative educational achievement. In addition, GED students may have the opportunity to receive computer basics (computer literacy and keyboard training).

CCS also offers an online GED program. For more information, call 509-533-4600.

# **HIGH SCHOOL COMPLETION**

Students enrolled in the IEL's High School Completion (HSC) program may earn from one to three credits to complete graduation requirements for a Washington state diploma. Students must have met current OSPI standards on state assessment tests or state approved alternatives prior to enrolling in HSC; however, the culminating project and High School and Beyond Plan are included as part of the HSC curriculum. Prior credits, military work and life experiences may be considered. Some qualifying criteria must be met prior to enrollment in the program. Students who are 17 through 18 years old will be accepted into the program only with an Office of the Superintendent of Public Instruction (OSPI) written release from the high school of the school district where they reside. For more information, call 509-533-4600.

# **HIGH SCHOOL DIPLOMA**

As stipulated by Substitute House Bill 1758 (SHB 1758), an individual enrolled in the Running Start Program through the option established under RCW 28A.600.310 through 28A.600.400 who satisfactorily completes an associate degree, including an associate of arts degree, associate of science degree, or associate in applied science degree, shall be awarded a high school diploma from the college upon written request from the student.

In addition to Running Start students, an individual, twenty-one years or older, who enrolls in the college for the purpose of obtaining an associate degree and who satisfactorily completes an associate degree, including an associate of arts degree, associate of science degree, or associate in applied science degree, shall be awarded a high school diploma from the college upon written request from the student, as stipulated by SHB 1758.

# **ENGLISH AS A SECOND LANGUAGE (ESL)**

From beginning literacy through advanced English as a second language, the IEL offers what students need to meet Washington State's six levels of competencies.

ESL is instruction for non-native English speakers. There are six levels of instruction and they are directly tied to competencies in listening, speaking, reading, writing and observing.

Job readiness, as well as retention and advancement in the workplace, are components of all ESL instruction. Computer literacy and ESL-specific software programs are a part of all curricula.

Students wishing to enroll in ESL must complete placement testing at the Adult Education Center before class assignments can be made. Students who have documentation of high school completion, as well as clearance from the Spokane K-12 system, may attend these classes. For placement testing or more information, call 509-533-4671.

Workplace ESL assists students in improving vocabulary and writing in the workplace and is offered through online ESL classes. Call 509-533-8522.

# **READ RIGHT®**

Adults who have difficulty reading, worry that reading problems will prevent them from succeeding in school or work, or find reading boring and learning new information difficult, are discovering Read Right®. The program helps eliminate reading problems and greatly improves comprehension. The end result is process of reading correctly, eliminating the reading problem. Read Right® classes are offered Monday-Thursday with open enrollment throughout the quarter. For more information, call 509-279-6028.

# **COLLEGE PREP**

Course components include math and writing review, computer skills, study skills, research skills, campus tours and guest speakers. Classes are offered with open enrollment in the first weeks of the quarter. This class is a must for anyone interested in brushing up on skills for entering college. For more information, call 509-533-4600.

# PACE SERVICES

PACE Services (People Accessing Careers and Education) helps adults who have cognitive, physical, sensory or psychiatric disabilities to achieve employment and ongoing education. In addition to self-referral, individuals can be referred by the Division of Developmental Disabilities, Division of Vocational Rehabilitation, public school districts and other programs within the community colleges. Programs are designed to help individuals gain the knowledge and skills to achieve their goals through education, resource coordination and vocational support. Classes include Job Skills, Communication Skills, Life Skills, Computer Skills, Computer Basics and Applications, Sign Language, Life Dynamics, Reading, Creative Writing, Transitions, and physical conditioning classes. Classes are held at Spokane Falls Community College, Spokane Community College and IEL Lodge.

PACE is accredited by the Commission on Accreditation of Rehabilitation Facilities for the following employment services: community employment for job development, job-site training and job supports, and employment planning services. For more information, call 509-279-6033.

# **SEER PROGRAM**

SEER (Supported Education and Employment Enhancing Rehabilitation) is a noncredit college-based supported education and employment program designed to assist individuals with psychiatric disabilities to pursue work, education and volunteerism as part of their recovery. The program offers classes for skill development as well as numerous support services to assist students while enrolled in SEER classes, credit classes or vocational services. For more information, call 509-279-6033.

# **READY PROGRAM**

The READY program is employment based and designed for individuals with barriers to both academic achievement and productive employment. General workplace skills include problem solving, communication, business basics and learning employment strategies. READY offers industry-specific training in Automotive Maintenance, Hospitality/Food Service, and Child Care. For more information, call 509-279-6033.

# TRANSITION

PACE Services offers a wide range of noncredit classes and employment services for special education students 18 to 21 years of age. PACE works with the student, student's family, and student's high school to develop an individualized program. Modeled after the Running Start concept, this service allows the student to progress to a college environment while completing high school. For more information, call 509-279-6033.

# **I-BEST TRAINING**

I-BEST (Integrated Basic Education and Skills Training) is a collaborative program that allows eligible adult students to complete adult education courses, such as GED and ESL, at the same time they are enrolled in college-level technical education programs in high-demand fields such as Automotive, Medical/Legal Office, Professional Business Technology and Social Service Technician.

Individual tutoring for both GED completion and ESL is available each day, as well as an opportunity to work on homework during a regularly scheduled "Study Lab.".

Upon successful completion of the program, I-BEST graduates are eligible for entry-level specialist jobs; have new job-specific math, reading and communication skills; and may have completed or be close to completing a GED certificate or high school diploma. Students also earn college credits during the program, which can be applied to a one-year professional certificate or two-year Associate in Applied Science degree at a community college. Financial aid may be available for students who qualify. For more information, call 509-279-6226.

# **Basic Studies**

# **DEVELOPMENTAL EDUCATION (SCC AND SFCC)**

Many students entering college or returning after an extended absence from studies need additional work to prepare for college-level courses. To meet the needs of these students, SCC and SFCC offer a series of courses in mathematics, reading, writing and study skills. Placement into many of these courses is determined by recommendation or performance on assessment tests usually taken before admission to the college. Many courses are offered in the traditional classroom format and through individualized, self-paced instruction in a learning center. These courses are numbered below 100 and, although taken for credit, are nontransferable. They are included in the Course Descriptions section of this catalog under the English and mathematics headings. For more information, call the SCC Counseling Center, 509-533-7026; SCC Liberal Arts Center, 509-533-7322; SFCC Counseling Center, 509-533-3525; SFCC Communications Learning Center, 509-533-3604; SFCC Mathematics Learning Center, 509-533-4600.

# **Continuing Education** Continuing education programs focus on lifelong learning needs

Continuing education programs focus on lifelong learning needs for personal enrichment and career development. These programs respond to current community needs through seminars, workshops and classes focusing on interests and needs of individuals and groups. SCC, SFCC and the IEL offer a wide variety of continuing education noncredit state-supported programs and self-support programs. The latter provides adults and young people a creative outlet to pursue activities not related to a college credit program. Financial aid is not available for these classes.

CCS continuing education programs include a variety of personal interest, creative, recreational, skills assessment, counseling and enrichment courses for men and women of all ages. Career and technical courses, customized training for business and industry and small business courses also are offered. Classes range from one-day or evening workshops to three-to eleven-week classes offered during the day, evening or weekend.

CCS welcomes program suggestions from the community and is eager to work closely with business, industry and community agencies to develop or customize special courses and programs to meet specific needs. Employers are encouraged to contact the colleges about classes of interest to their employees.

There are five ways to register for continuing education courses: online, by mail, in person, by phone or by fax. Students may register online at www.ccs.spokane.edu/continuinged, by mail or fax using the non-credit registration form in the continuing education class schedule, in person at any college's continuing education registration area, or by phone. Payment is required at the time of registration – check, money order, MasterCard and VISA are acceptable methods of payment. Because of the large number of students frequently attending continuing education classes, admission is granted on a first-come, first-served basis. Some courses or programs require a minimum age of 18 years, prerequisites and/or employment in an occupation related to the course.

For a current list of continuing education courses, visit www.ccs. spokane.edu/continuinged or consult the continuing education class schedule.

For more information: SCC Continuing Education, 509-533-8010, or www.scc.spokane.edu/ce; SFCC Continuing Education, 509-533-3140, or www.spokanefalls.edu/Programs/ContinuingEd; IEL Enrollment Services, 509-279-6030; or www.ccs.spokane.edu/Catalog---Schedule/ Noncredit-classes.aspx.

# **BUSINESS AND COMMUNITY TRAINING**

The Business and Community Training (BCT) division of the Institute for Extended Learning is located at 2917 W Fort George Wright Drive. Using the educational and technical resources of SCC, SFCC and the IEL, BCT specializes in designing, coordinating and delivering training programs in a multitude of areas, ranging from technical skills to leadership/management issues. Training is customized to meet the specific needs of businesses, with alternatives for locations, times and methodology that include onsite training to businesses throughout eastern Washington, 24 hours a day, seven days a week. For specific information on customized training programs for business and industry, call 509-279-6252 or e-mail kmeyerson@iel.spokane.edu. BCT also offers personal enrichment classes and small business training for students 18 years of age and older, as well as programs for those of retirement age and parent education/cooperative preschools. For information on these programs, call the numbers listed in the following sections.

# **CAREER BUILDER PROGRAM**

Career Builder training courses are designed in partnership with area employers to meet current or projected job openings. The trainings are short – 8 to 22 weeks in length – and intended to get students quickly into the workforce. Enroll full-time Monday through Thursday, or parttime mornings or afternoons.

With Career Builder, students can make a program to fit their needs. Choose among the following options: MS Office 2007 Applications, Keyboarding, Business English, Business Math, Personal Finance (Quicken), Automated Bookkeeping (QuickBooks), Medical Terminology, Office Procedures, Customer Service, Workplace Readiness (Job Research), and Lifespan Strategies. For more information, call 509-279-6229 or e-mail mthompson@iel.spokane.edu.

## **COMMUNITY EDUCATION**

The Community Education program offers a wide variety of noncredit personal enrichment and professional computer classes for adults 18 years of age and older. These affordable classes range from one-night workshops to multiple-session classes and are offered at convenient times in the evening or on weekends at public schools and other locations throughout Spokane County. Topics include arts and creativity, home and garden, computers, health and fitness, and recreation. These classes provide an important connection between the community colleges and the community. For more information, call 509-279-6269.

## PARENT EDUCATION/COOPERATIVE PRESCHOOL PROGRAM

Parenting is treated as a vocation by the state of Washington. This noncredit program invites parents to explore the ways they influence children; discover how children "read their world"; discover how self-image develops; and explore quality-of-life issues such as family, communication skills, finances and relationships. Parent "co-ops" are located in three counties of the college district.

This program is designed to meet the schedules of parents with infants, toddlers, and 3- to 5-year old children.

In Spokane, one co-op offers a special group for parents with infants 10 months and younger, called Program for Early Parent Support (PEPS). It is a weekly, two-hour support/education class.

A Homeschooling Qualifying Course is offered three times a year for parents interested in homeschooling their children. This course fulfills the Washington State legal requirements for homeschooling children from preschool through grade 12. A variety of parent enrichment courses are offered each quarter.

For more information on locations and fees, call the Parent Education office at 509-279-6021, 800-845-3324 or e-mail jgunn@iel.spokane.edu.

# PLUS 50/REWIRED PROGRAM

Today's baby boomers and seniors aren't slowing down, they are postponing retirement or are re-entering the workforce. That's why Plus 50 supports students over 50 who want to re-invent their careers, enrich their lives, or give back to the community in a meaningful way. Times are tough in today's marketplace, so a welcoming and inviting environment is created for these students in this unstable economy. Tools are provided in order to add to current skills or retrain for a new job. For more information, call 509-279-6237.

#### **SENIORS PROGRAM**

The Seniors Program offers a wide variety of enrichment courses each quarter for those of retirement age throughout the Spokane area. Senior Week, created from the Elderhostel model, also is offered during the summer. For more information, call 509-279-6027.

#### **SMALL BUSINESS TRAINING**

Small Business Training provides low-cost, noncredit training for small businesses in business basics such as cash flow management, record-keeping, taxes, legal issues, marketing and setting up a web site, as well as special interest topics such as nonprofit management and grant writing. For more information, call 509-533-4700.

# WASHINGTON STATE CUSTOMIZED TRAINING PROGRAM

The Customized Training Program (CTP) provides training assistance to businesses in Washington. CTP training is a tool for enhancing the growth of Washington's economy, increasing employment opportunities and adding to the state's quality of life. Training can include formal training in basic education and skills, English language for non-native speakers, technical skills and job-related instruction, plus skills assessment and evaluation and training equipment, materials, facilities and supplies. All of the training is customized to meet the training needs of the company. For more information, call 509-279-6248.

## WASHINGTON STATE JOB SKILLS PROGRAM

An economic development program established and funded by the Washington State Legislature, the Job Skills Program (JSP) provides customized job skills training to meet Washington state employers' specific skill needs for new and current employees. The JSP provides specialized training in the areas of computer skills, leadership, Lean Manufacturing/Office, and other training considered necessary to improve business quality and emerge with a stronger, more competitive workforce. For more information, call 509-279-6243 or e-mail kproff@iel.spokane.edu.

# **CORRECTIONAL EDUCATIONAL PROGRAMS**

Classes operate at the Airway Heights Correction Center and Pine Lodge Corrections Center for Women. A grant from the Washington State Board for Community and Technical Colleges (SBCTC) enables the college to provide educational services for the Washington State Department of Corrections. The classes offered at Airway Heights Correction Center and Pine Lodge Corrections Center for Women include: Adult Basic Education (ABE), General Educational Development (GED), English as a Second Language (ESL), Information Technology Certificate (ITC), Office Assistant and Front Office Professional Certificates, upholstery and interactive media. For more information, call the education centers at: Airway Heights Correction Center, 509-244-6897; and Pine Lodge Corrections Center for Women, 509 299-2312.

# **CHANGE POINT/LIFE TRANSITIONS CENTER**

The Life Transitions Center offers four-week class sessions to men and women in transition following divorce, separation, or the death, disability or incarceration of a spouse or domestic partner. These classes are designed to prepare students for employment and continuing education. The Change Point Program offers vocational counseling, basic computer training, and support, addressing barriers and challenges to becoming self-sufficient. For more information, call 509-279-6065.

#### HEAD START/ECEAP/EARLY HEAD START

Spokane Head Start and Early Head Start are federally funded early childhood education programs serving children of low-income families, from birth to five years of age. The Early Childhood Education Assistance Program (ECEAP) is a state-funded preschool program that gives priority to children who are four years old by August 31. Part-day services are free to eligible families and include early childhood education, nutrition, social services and disabilities support. Parent involvement is encouraged. Some sites provide fee-based full-day childcare services integrated with Head Start/ECEAP/Early Head Start. At more than 20 sites throughout Spokane County, Head Start/ECEAP/Early Head Start staff and parents work together to provide positive experiences for children and their families. For more information, call 509-533-4800 or visit www.iel.spokane.edu/Headstart.

## WORKER RETRAINING PROGRAMS

Worker Retraining is a Washington State cooperative initiative between Community Colleges of Spokane and the Washington State Employment Security Department. This initiative is designed to help eligible unemployed workers receive funding for retraining at CCS. Eligible unemployed workers include: (1) dislocated workers, (2) laid-off workers receiving unemployment benefits, (3) workers who have exhausted their unemployment benefits, (4) formerly self-employed workers, and (5) displaced homemakers. Services include employment and training assistance, career counseling, school-to-work and job transition, goal setting, customized training for job skills upgrade and job placement. For more information, call the Worker Retraining Office at SCC, 509-533-8056; SFCC, 509-533-3594; IEL, 509-279-6031; WorkSource Spokane, 509-532-3172 or find us on the web at www.ccs.spokane.edu/ Community-Resources/Worker-Retraining.aspx

# **Transfer Program Outlines**

# TRANSFER RIGHTS AND RESPONSIBILITIES

# STUDENT RIGHTS AND RESPONSIBILITIES

- 1. Students have the right to clear, accurate, and current information about their transfer admission requirements, transfer admission deadlines, degree requirements, and transfer policies that include course equivalencies.
- 2. Transfer and freshman-entry students have the right to expect comparable standards for regular admission to programs and comparable program requirements.
- 3. Students have the right to seek clarification regarding their transfer evaluation and may request the reconsideration of any aspect of that evaluation. In response, the college will follow established practices and processes for reviewing its transfer credit decisions.
- 4. Students who encounter other transfer difficulties have the right to seek resolution. Each institution will have a defined process for resolution that is published and readily available to students.
- 5. Students have the responsibility to complete all materials required for admission and to submit the application on or before the published deadlines.
- 6. Students have the responsibility to plan their courses of study by referring to the specific published degree requirements of the college or academic program in which they intend to earn a bachelor's degree.
- 7. When a student changes a major or degree program, the student assumes full responsibility for meeting the new requirements.

# COLLEGE AND UNIVERSITY RIGHTS AND RESPONSIBILITIES

- 1. Colleges and universities have the right and authority to determine program requirements and course offerings in accordance with their institutional missions.
- 2. Colleges and universities have the responsibility to communicate and publish their requirements and course offerings to students and the public, including information about student transfer rights and responsibilities.
- 3. Colleges and universities have the responsibility to communicate their admission and transfer related decisions to students in writing (electronic or paper).

# ASSOCIATE OF ARTS

# DIRECT TRANSFER AGREEMENT (AA-DTA)

A candidate for the Associate of Arts (DTA) degree must complete 90 credits in academic courses numbered 100 and above with a cumulative grade point average of at least 2.0. Courses must be chosen from the following specified distribution areas: communication-10 credits, quantitative/symbolic reasoning-5 credits, humanities-15 credits, social sciences-15 credits, mathematics/science-15 credits, healthrelated and physical education/recreational and leisure activities-5 credits, and 25 credits in approved general electives. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the fouryear institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. Degree requirements may change; for current requirements students should consult a counselor or academic adviser. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (10 credits)

Two courses from this area satisfy the Communication composition requirement but not the writing-intensive requirement.

ENGL& 101 (required) AND one of the following:

CMST& 101, 220

ENGL& 102, 235

- JOURN 220
- II. Intermediate Algebra and Quantitative/Symbolic Reasoning (5 credits)

Both A and B must be satisfied.

A. Intermediate Algebra proficiency may be demonstrated:

1) by obtaining appropriate scores on the intermediate algebra placement exam; or 2) by completing and passing an intermediate algebra course in college (MATH 097, 098, or 099) with a grade of 2.0 or better. Intermediate Algebra proficiency does not count toward credits required for this degree.

# B. Quantitative/Symbolic Reasoning (5cr)

Select 5 credits from courses listed under Quantitative Reasoning **OR** Symbolic Reasoning.

# Quantitative Reasoning:

BUS 217 CHEM& 161 MATH 201, 2

MATH 201, 208, 209, 210, 211, 212, 221, 245; MATH& 107, 141, 142, 148, 151, 152, 153 PHYS 101, 201

# Symbolic Reasoning:

CS 142, 223, 253, 255; CS&141 PHIL& 106

# III. Humanities (15 credits)

A total of 15 credits required in **three** subject areas. Courses must be selected from Groups A, B or C with no more than two from any one group. No more than 5 credits in a foreign language or ASL or HUM/ HUM&.

# **GROUP A: Literature and Language**

CMST 227 ENGL 208-209

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220 Foreign Language **OR** ASL – 5 credits only

JOURN 110

**GROUP B:** Aesthetic Experience

ART 108, 109, 110, 112; ART& 100

DRMA& 101 HUM 141, 221, 222, 223, 224, 225, 236

MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

# **GROUP C: Philosophy and the Humanities**

HUM 107, 201; HUM& 101

PHIL 210, 215, 220, 231; PHIL& 101, 106

# IV. Social Sciences (15 credits)

A total of 15 credits required. Courses must be selected from **three** subject areas – one from Group A, one from Group B, and a third from either A or B in a different subject area from the previous two – e.g., Psychology, Economics, History.

# **GROUP A: Human Behavior**

ANTH& 100, 206, 210 GEOG 101, 230, 260 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 230, 261; SOC& 101, 201 WS 201

# **GROUP B: Human Enterprise**

ECON 100; ECON& 201, 202 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219

POLS 102, 125, 201, 204, 205; POLS& 101, 202, 203

# V. Mathematics/Science (15 credits)

A total of 15 credits required. A minimum of 10 credits must come from Group B **OR** C, to include a minimum of one laboratory science course.

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In any group no more than one course per subject area.

#### **GROUP A: Mathematics**

If mathematics credits are used to meet Mathematics/Science requirements, they are in addition to the Quantitative/Symbolic Reasoning requirements.

MATH 201, 208, 209, 210, 211, 212, 220, 221, 245; MATH& 107, 141, 142, 148, 151, 152, 153, 254

# **GROUP B: Science**

Life Sciences

(Laboratory courses) BIOL 100, 110, 115; BIOL& 160, 221, 222, 223 BOT 111, 112, 113 ENVS& 101 ZOOL 121, 122 (Nonlaboratory course) NUTRI 251 OCEA& 101

Physical Sciences

(Laboratory courses)

CHEM 101, 104, 115; CHEM& 110, 121, 122, 123, 140, 161, 162, 163, 241/251, 242/252, 243/253 FSCI 101, 102 GEOL 201, 210; GEOL& 101 PHYS 100, 101, 102, 103, 105, 108, 200, 201, 202, 203 (Nonlaboratory courses) ASTR& 100, 101 ENVS 104, 110, 207, 210, 211 GEOL 116; GEOL& 100

PALEO 103

#### **GROUP C: Science**

(Laboratory courses) BIOL& 241, 242, 260 FSCI 103 (Nonlaboratory courses) BIOL 244

# VI. Health-Related/PE/Recreational/Leisure Activities Courses (5 credits)

A minimum of 5 credits and two courses from the following groups. One course must be from Group A and one course from Group B.

GROUP A: Minimum of one course from:

ART 122 HLTH 101, 104, 174 PE 170

GROUP B: Minimum of one course from:

AQUAT 101, 110, 115, 132, 136, 224, 230, 232

ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 189, 197, 205

CMST 223, 224, 225

DRMA 106, 107, 108

MUSC 115, 127, 139, 145, 148, 151, 170, 171, 176, 177, 178, 182, 215, 227, 239, 245, 248, 251, 276, 277, 278, 282

PE 100, 101, 102, 105, 106, 107, 108, 112, 114, 115, 116, 117, 118, 120, 122, 126, 127, 130, 135, 139, 140, 141, 143, 144, 145, 146, 147, 149, 151, 154, 156, 157, 158, 159, 160, 164, 165, 169, 177, 182, 185, 186, 187, 188, 200, 201, 202, 205, 206, 207, 208, 212, 214, 215, 216, 217, 218, 220, 222, 226, 227, 230, 235, 239, 240, 241, 243, 244, 245, 246, 247, 249, 251, 254, 256, 257, 258, 259, 260, 264, 265, 269, 277, 282, 285, 286, 287, 288

# PHOTO 101

# VII.Electives (25 credits)

A minimum of 25 additional credits of college-level courses numbered 100 or above. At least 10 of the 25 elective credits must be considered generally transferable by Intercollege Relations Commission (ICRC) guidelines. Courses may be chosen from distribution areas or from the generally transferable course list:

Any ART, DRAMA, MUSIC course; ACCT& 201, 202, 203; ANTH 221; BUS& 101, 201; CIS 110; CJ& 101, 105; CMST 103, 104, 105, 106, 107,

110, 114, 120, 121, 127, 204, 205, 206, 226, 250, 280, 287; CMST& 210, 230; ECED 101, 190, 290; EDUC 267; EDUC& 202, 204, 205; ENGL 238; ENGL& 236, 237; FRCH 241; GEOL 114; GERM 141, 241; GRDSN 109; HIST 110, 237; HS 102; HSGER 101; HUM 102, 205, 207, 241; IS 120; JAPN 241; JOURN 100, 224, 225; MATH 213, 225, 274; PHOTO 237; POLS 280; PSYC 181, 182; SOC 250; SPAN 105, 107, 241, 242

**Notice:** For transferring students, 75 of the 90 credit total must be fully transferable as defined by the Intercollege Relations Commission (ICRC) guidelines for the Direct Transfer Agreement to be honored by most four-year institutions in Washington. A maximum of 15 elective credits may be career and technical courses numbered 100 or above. Due to the specialized nature of many of the listed courses, students should consult with their counselor or academic adviser and the catalog of the four-year institution to which they plan to transfer for specific degree requirements.

# ASSOCIATE IN BIOLOGY

# DIRECT TRANSFER AGREEMENT/MAJOR RELATED PROGRAM (DTA/MRP)

The Associate in Biology DTA/MRP degree is an articulated transfer degree agreement for future biology majors between the community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of sciences is not guaranteed to students holding an Associate in Biology DTA/MRP degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the fouryear institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90 credits in courses numbered 100 or above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication—10 credits, quantitative reasoning—5 credits, humanities—15 credits, social sciences—15 credits, science—30 credits, health-related and physical education/recreational and leisure activities-5 credits, and 10 credits in approved electives. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA.

#### DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

## I. Communication (10 credits)

Courses from this area do not satisfy the writing-intensive requirement.

ENGL& 101, 102

# II. Intermediate Algebra and Quantitative Reasoning (5 credits)

Both A and B must be satisfied.

**A. Intermediate Algebra proficiency** may be demonstrated: 1) by obtaining appropriate scores on the intermediate algebra placement exam; or 2) by completing and passing an intermediate algebra course in college (MATH 097, 098, or 099) with a grade of 2.0 or better. Intermediate Algebra proficiency does not count toward credits required for this degree.

# B. Quantitative Reasoning (5cr)

MATH& 151

### III. Humanities (15 credits)

A total of 15 credits required in three subject areas. Courses must be selected from Groups A, B or C with no more than two from any one group. No more than 5 credits in a foreign language or ASL or HUM/HUM&.

#### **GROUP A: Literature and Language**

CMST 227

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220

PROGRAMS OF STUDY

Foreign Language OR ASL - 5 credits only JOURN 110

#### **GROUP B: Aesthetic Experience**

ART 108, 109, 110, 112; ART& 100

DRMA& 101 HUM 141, 221, 222, 223, 224, 225, 236 MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

# **GROUP C: Philosophy and the Humanities**

HUM 107, 201; HUM& 101

PHIL 210, 215, 220, 231; PHIL& 101, 106

# **IV. Social Sciences (15 credits)**

A total of 15 credits required. Courses must be selected from three subject areas - one from Group A, one from Group B, and a third from either A or B in a different subject area from the previous two - e.g., Psychology, Economics, History.

## **GROUP A: Human Behavior**

ANTH& 100, 206, 210 GEOG 101, 230, 260 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 230, 261; SOC& 101, 201 WS 201

# **GROUP B: Human Enterprise**

ECON 100; ECON& 201, 202

HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219

POLS 102, 125, 201, 204, 205; POLS & 101, 202, 203

# V. Science (30 credits)

Each group must be satisfied.

#### **GROUP A: Biology (15cr)**

BIOL& 221, 222, 223 (required)

# **GROUP B: Chemistry (15cr)**

CHEM& 161, 162, 163 (required)

#### VI. Health-Related/PE/Recreational/Leisure Activities Courses (5 credits)

Select a minimum of 5 credits and two courses from the following groups. One course must be from Group A and one course from Group B.

GROUP A: Minimum of one course from:

ART 122 HLTH 101, 104, 174 PE 170

# GROUP B: Minimum of one course from:

AQUAT 101, 110, 115, 132, 136, 224, 230, 232

ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 189, 197, 205

- CMST 223, 224, 225
- DRMA 106, 107, 108

MUSC 115, 127, 139, 145, 148, 151, 170, 171, 176, 177, 178, 182, 215, 227, 239, 245, 248, 251, 276, 277, 278, 282

PE 100, 101, 102, 105, 106, 107, 108, 112, 114, 115, 116, 117, 118, 120, 122, 126, 127, 130, 135, 139, 140, 141, 143, 144, 145, 146, 147, 149, 151, 154, 156, 157, 158, 159, 160, 164, 165, 169, 177, 182, 185, 186, 187, 188, 200, 201, 202, 205, 206, 207, 208, 212, 214, 215, 216, 217, 218, 220, 222, 226, 227, 230, 235, 239, 240, 241, 243, 244, 245, 246, 247, 249, 251, 254, 256, 257, 258, 259, 260, 264, 265, 269, 277, 282, 285, 286, 287, 288

# PHOTO 101

# **VII.Electives (10 credits)**

A minimum of 10 additional credits of college-level courses numbered 100 or above, as needed, to satisfy the 90 quarter credits required for this degree. These additional credits should be planned in consultation with a counselor or academic adviser. Electives allow students to include additional courses to prepare for the biology major based on college selection. Examples include a full year sequence of organic chemistry for majors; a full year sequence of physics for science majors; or further math at the pre-calculus level or above or statistics. Students should check with the transfer institution prior to taking any further biology courses beyond the one-year sequence. Some colleges require all continuing biology courses be taken at the 300 level.

# ASSOCIATE IN BUSINESS

# DIRECT TRANSFER AGREEMENT/MAJOR RELATED PROGRAM (DTA/MRP)

The Associate in Business (DTA/MRP) degree is a statewide articulated transfer degree agreement for business majors between the community colleges and most four-year institutions. The Associate in Business DTA/MRP degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of business is not guaranteed to students holding a DTA/MRP degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete 90 credits in courses numbered 100 or above. Courses must be chosen from the following specified distribution areas: communication-10 credits, quantitative/symbolic reasoning-5 credits, humanities-15 credits, social sciences—15 credits, mathematics/science—20 credit, health-related and physical education/recreational and leisure activities-5 credits, required business courses—20 credits. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/ diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (10 credits)

Two courses from this area satisfy the Communication composition requirement but not the writing-intensive requirement.

# ENGL& 101, 102

#### II. Intermediate Algebra and Quantitative/Symbolic Reasoning (5 credits)

Both A and B must be satisfied.

A. Intermediate Algebra proficiency may be demonstrated: 1) by obtaining appropriate scores on the intermediate algebra placement exam; or 2) by completing and passing an intermediate algebra course in college (MATH 097, 098, or 099) with a grade of 2.0 or better. Intermediate Algebra proficiency does not count toward credits required for this degree.

# B. Quantitative/Symbolic Reasoning (5 credits)

#### **BUS 217** III. Humanities (15 credits)

A total of 15 credits required in three subject areas. Courses must be selected from Groups A, B or C with no more than two from any one group. No more than 5 credits in a foreign language or ASL or HUM/ HUM&.

#### **GROUP A: Literature and Language**

CMST 227

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220

Foreign Language **OR** ASL<sup>1</sup> – 5 credits only

JOURN 110

#### **GROUP B: Aesthetic Experience**

ART 108, 109, 110, 112; ART& 100

DRMA& 101

HUM 141, 221, 222, 223, 224, 225, 236

MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

# **GROUP C: Philosophy and the Humanities**

HUM 107, 201; HUM& 101

PHIL 210, 215, 220, 231; PHIL& 101, 106

Note: Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to major. Five credits in world languages may apply to the Humanities requirement.

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### **IV. Social Sciences (15 credits)**

Select one course from Group A. Both courses in Group B are required.

# **GROUP A: Human Behavior**

ANTH& 100, 206, 210 GEOG 101, 230, 260 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 230, 261; SOC& 101, 201 WS 201

# **GROUP B: Human Enterprise**

ECON& 201, 202

# V. Mathematics/Science (20 credits)

Both courses in Group A are required. Ten credits must come from Group B **OR** C, to include a minimum of one laboratory science course. In any group no more than one course per subject area.

# **GROUP A: Mathematics**

MATH 201; MATH& 148<sup>1</sup>

# **GROUP B: Science**

Life Sciences

(Laboratory courses) BIOL 100, 110, 115; BIOL & 160, 221, 222, 223 BOT 111, 112, 113 ENVS& 101 ZOOL 121, 122 (Nonlaboratory courses) NUTRI 251 OCEA& 101 Physical Sciences (Laboratory courses) CHEM 101, 104, 115; CHEM& 110, 121, 122, 123, 140, 161, 162, 163, 241/251, 242/252, 243/253 FSCI 101, 102 GEOL 201, 210; GEOL& 101 PHYS 100, 101, 102, 103, 105, 108, 200, 201, 202, 203 (Nonlaboratory courses) ASTR& 100, 101 ENVS 104, 110, 207, 210, 211 GEOL 116; GEOL& 100 PALEO 103

### **GROUP C: Science**

(Laboratory courses) BIOL& 241, 242, 260 FSCI 103 (Nonlaboratory courses) BIOL 244

**Note:** Students intending the manufacturing management major at WWU should consult WWU or a counselor or academic adviser regarding the selection of natural science courses required for admission to the major.

# VI. Health-Related/PE/Recreational/Leisure Activities Courses (5 credits)

A minimum of 5 credits and two courses from the following groups: One course must be from Group A and one course from Group B.

**GROUP A:** Minimum of **one** course from:

ART 122 HLTH 101, 104, 174 PE 170 **GROUP B:** Minimum of **one** course from: AQUAT 101, 110, 115, 132, 136, 224, 230, 232 ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 189, 197, 205 CMST 223, 224, 225 DRMA 106, 107, 108 MUSC 115, 127, 139, 145, 148, 151, 170, 171, 176, 177, 178, 182, 215, 227, 239, 245, 248, 251, 276, 277, 278, 282

PE 100, 101, 102, 105, 106, 107, 108, 112, 114, 115, 116, 117, 118,

120, 122, 126, 127, 130, 135, 139, 140, 141, 143, 144, 145, 146, 147, 149, 151, 154, 156, 157, 158, 159, 160, 164, 165, 169, 177, 182, 185, 186, 187, 188, 200, 201, 202, 205, 206, 207, 208, 212, 214, 215, 216, 217, 218, 220, 222, 226, 227, 230, 235, 239, 240, 241, 243, 244, 245, 246, 247, 249, 251, 254, 256, 257, 258, 259, 260, 264, 265, 269, 277, 282, 285, 286, 287, 288
PHOTO 101

### **VII. Required Business Courses (20 Credits)**

ACCT& 201, 202, 203

BUS& 201<sup>2</sup>

<sup>1</sup> Students intending to transfer to EWU should consult with a counselor or academic adviser.

<sup>2</sup> UW requires BUS 204 instead of BUS& 201

# ASSOCIATE IN ELEMENTARY EDUCATION

# DIRECT TRANSFER AGREEMENT/MAJOR RELATED PROGRAM (DTA/MRP)

The Associate in Elementary Education DTA/MRP degree is an articulated transfer degree agreement for elementary education majors between the community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Elementary Education DTA/MRP degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90 credits in courses numbered 100 or above. Courses must be chosen from the following specified distribution areas: communication—15 credits, quantitative reasoning—10 credits, humanities—15 credits, social sciences—25 credits, science—15 credits, health-related and physical education/recreational and leisure activities—5 credits, additional education courses—5-17 credits. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA.

### DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement.

# CMST& 101 ENGL& 101, 102

II. Intermediate Algebra and Quantitative Reasoning (10-15 credits)

Both A and B must be satisfied.

**A. Intermediate Algebra proficiency** may be demonstrated: 1) by obtaining appropriate scores on the intermediate algebra placement exam; or 2) by completing and passing an intermediate algebra course in college (MATH 097, 098, or 099) with a grade of 2.0 or better. Intermediate Algebra proficiency does not count toward credits required for this degree.

### B. Quantitative Reasoning (10-15cr)

Complete one series

MATH 208, 209 AND 210 (15cr)

OR MATH 211 AND 212 (10cr)

# III. Humanities (15 credits)

A total of 15 credits required in **three** subject areas. Courses must be selected from Groups A, B, or C with no more than two from any one group. No more than 5 credits in a foreign language or ASL or HUM/ HUM&.

### **GROUP A: Literature and Language**

CMST 227

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278;

PROGRAMS OF STUDY

ENGL& 111, 112, 113, 114, 220<sup>1</sup> Foreign Language **OR** ASL – 5 credits only JOURN 110

# **GROUP B:** Aesthetic Experience

ART 108, 109, 110, 112; ART& 100<sup>1</sup> DRMA& 101<sup>1</sup> HUM 141, 221, 222, 223, 224, 225, 236 MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243<sup>1</sup>

### **GROUP C: Philosophy and the Humanities**

HUM 107, 201; HUM& 101

PHIL 210, 215, 220, 231; PHIL& 101, 1061

# **IV. Social Sciences (25 credits)**

A total of 25 credits required in at least **three** subject areas. Select a minimum of 5cr from Group A **AND** a minimum of 10cr from required courses in Group B.

# **GROUP A: Human Behavior (5cr minimum)**

ANTH& 100, 206, 210<sup>1</sup> GEOG<sup>1</sup> 101, 230<sup>2</sup>, 260 PSYC 204, 210, 250; PSYC& 100, 200<sup>2</sup>, 220 SOC 204, 211, 221, 261; SOC& 101, 201 WS 201

# **GROUP B: Human Enterprise**

ECON 100; ECON& 201, 202

HIST& 136, 137 (minimum of one required)

HIST 107, 141, 142, 230, 240; HIST& 117, 118, 219 (minimum of one required)

POLS 102, 125, 201, 204, 205; POLS & 101, 202, 2031

# V. Science (15 credits)

Complete either 15cr in Group A or 15cr in Group B. If choosing Group B, select 5cr from Biology **OR** ENVS, 5cr from Geology, **AND** 5cr from Physics, Chemistry, **OR** Astronomy.

## **GROUP A: Integrated Sciences (15cr)**

FSCI 101, 102, 103

# GROUP B: Life/Physical Sciences (15cr)

BIOL 100, 115 **OR** BIOL& 160 **OR** ENVS& 101 (one course required)

GEOL 210 OR GEOL 101 (one course required)

PHYS 100, 101, 102, 103, 201, 202, 203 **OR** CHEM 101, 115; CHEM& 110, 121, 122, 123, 140, 161, 162, 163 **OR** ASTR& 100, 101 (one course required)

# VI. Health-Related/PE/Recreational/Leisure Activities Courses (5 credits)

A minimum of 5 credits and two courses from the following groups. One course must be from Group A and one course from Group B.

GROUP A: Minimum of one course from:

ART 122 HLTH 101, 104, 174 PE 170

# **GROUP B:** Minimum of **one** course from:

AQUAT 101, 110, 115, 132, 136, 224, 230, 232

ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 189, 197, 205

CMST 223, 224, 225

DRMA 106, 107, 108

MUSC 115, 127, 139, 145, 148, 151, 170, 171, 176, 177, 178, 182, 215, 227, 239, 245, 248, 251, 276, 277, 278, 282

PE 100, 101, 102, 105, 106, 107, 108, 112, 114, 115, 116, 117, 118, 120, 122, 126, 127, 130, 135, 139, 140, 141, 143, 144, 145, 146, 147, 149, 151, 154, 156, 157, 158, 159, 160, 164, 165, 169, 177, 182, 185, 186, 187, 188, 200, 201, 202, 205, 206, 207, 208, 212, 214, 215, 216, 217, 218, 220, 222, 226, 227, 230, 235, 239, 240, 241, 243, 244, 245, 246, 247, 249, 251, 254, 256, 257, 258, 259, 260, 264, 265, 269, 277, 282, 285, 286, 287, 288 PHOTO 101

### VII.Additional Courses (5-17 credits)

EDUC 267/EDUC& 202 (SCC) **OR** EDUC& 202 (SFCC) (required) EDUC& 204 (recommended)

IS 120 OR CS 101 (SFCC) OR CIS 110 (SCC) (recommended)

<sup>1</sup> Recommended subject areas

<sup>2</sup> EWU requires GEOG 230, WSU requires PSYC& 200

**Note:** Some four-year institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of additional elective courses. Students should work with a counselor or academic adviser for further guidance specific to their goals. Although not required for this degree, students should be advised they must pass the Washington Educators Skills Test-Basic (WEST-B) in order to apply to teacher preparation programs.

# ASSOCIATE IN MATHEMATICS EDUCATION

# DIRECT TRANSFER AGREEMENT (DTA)

The Associate in Mathematics Education (DTA) degree is an articulated transfer degree agreement for future secondary mathematic teachers between the community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Mathematics Education DTA degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in courses numbered 100 or above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, quantitative reasoning-25 credits, humanities—15 credits, social sciences—15 credits, science—10 credits, health-related and physical education/recreational and leisure activities -5 credits, additional required courses-5-7 credits. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement.

CMST& 101 ENGL& 101, 102

# II. Intermediate Algebra and Quantitative Reasoning (25 credits)

# Both A and B must be satisfied.

**A. Intermediate Algebra proficiency** may be demonstrated: 1) by obtaining appropriate scores on the intermediate algebra placement exam; or 2) by completing and passing an intermediate algebra course in college (MATH 097, 098, or 099) with a grade of 2.0 or better. Intermediate Algebra proficiency does not count toward credits required for this degree.

### B. Quantitative Reasoning (25cr)

MATH 220; MATH& 151, 152, 153, 254

# III. Humanities (15 credits)

A total of 15 credits required in **three** subject areas. Courses must be selected from Groups A, B, or C with no more than two from any one group. No more than 5 credits in a foreign language or ASL or HUM/ HUM&.

# **GROUP A: Literature and Language**

CMST 227

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220<sup>1</sup>

PROGRAMS OF STUDY

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Foreign Language **OR** ASL – 5 credits only JOURN 110

### **GROUP B: Aesthetic Experience**

ART 108, 109, 110, 112; ART& 100<sup>1</sup> DRMA& 101<sup>1</sup> HUM 141, 221, 222, 223, 224, 225, 236 MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243<sup>1</sup>

# **GROUP C:** Philosophy and the Humanities

HUM 107, 201; HUM& 101 PHIL 210, 215, 220, 231; PHIL& 101, 106<sup>1</sup>

# IV. Social Sciences (15 credits)

Select PSYC& 100 from Group A, one from Group B, and a third from either Group A or B.

# **GROUP** A: Human Behavior

ANTH& 100, 206, 210<sup>1</sup> GEOG 101, 230, 260 PSYC& 100 (required) SOC 204, 211, 221, 230, 261; SOC& 101, 201 WS 201

### **GROUP B: Human Enterprise**

ECON 100; ECON& 201, 202 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219<sup>1</sup>

POLS 102, 125, 201, 204, 205; POLS& 101, 202, 2031

# V. Science (10 credits)

Complete 10cr from Group A or B to include a minimum of one laboratory science course. In any group no more than one course per subject area.

# **GROUP A: Science**

Life Sciences (Laboratory courses) BIOL 100, 110, 115; BIOL & 160 BOT 111, 112, 113 ENVS& 101 ZOOL 121, 122 (Nonlaboratory courses) NUTRI 251 OCEA& 101 Physical Sciences (Laboratory courses) CHEM 101, 104, 115; CHEM& 110, 121, 122, 123, 140, 161, 162, 163, 241/251, 242/252, 243/253 GEOL 201, 210; GEOL& 101 PHYS 100, 101, 102, 103, 105, 108, 200, 201, 202, 203 (Nonlaboratory courses) ASTR& 100, 101 ENVS 104, 110, 207, 210, 211 GEOL 116 (5cr only); GEOL& 100 PALEO 103

# **GROUP B: Science**

(Laboratory courses)

BIOL& 241, 242, 260

# VI. Health-Related/PE/Recreational/Leisure Activities Courses (5 credits)

A minimum of 5 credits and two courses from the following groups. One course must be from Group A and one course from Group B.

**GROUP A:** Minimum of **one** course from:

ART 122

HLTH 101, 104, 174 PE 170

**GROUP B:** Minimum of **one** course from: AQUAT 101, 110, 115, 132, 136, 224, 230, 232 ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 189, 197,

ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 205 CMST 223, 224, 225 DRMA 106, 107, 108 MUSC 115, 127, 139, 145, 148, 151, 170, 171, 176, 177, 178, 182, 215, 227, 239, 245, 248, 251, 276, 277, 278, 282

PE 100, 101, 102, 105, 106, 107, 108, 112, 114, 115, 116, 117, 118, 120, 122, 126, 127, 130, 135, 139, 140, 141, 143, 144, 145, 146, 147, 149, 151, 154, 156, 157, 158, 159, 160, 164, 165, 169, 177, 182, 185, 186, 187, 188, 200, 201, 202, 205, 206, 207, 208, 212, 214, 215, 216, 217, 218, 220, 222, 226, 227, 230, 235, 239, 240, 241, 243, 244, 245, 246, 247, 249, 251, 254, 256, 257, 258, 259, 260, 264, 265, 269, 277, 282, 285, 286, 287, 288
PHOTO 101

### **VII.Education Courses (5-7 credits required)**

EDUC 267/EDUC& 202 (SCC) **OR** EDUC& 202 (SFCC) (required) <sup>1</sup> Recommended subject area.

# ASSOCIATE IN PRE-NURSING

### DIRECT TRANSFER AGREEMENT/MAJOR RELATED PROGRAM (DTA/MRP)

The Associate in Pre-Nursing DTA/MRP degree is a statewide articulated transfer degree agreement for nursing majors between the community colleges and most four-year institutions. The Associate in Pre-Nursing DTA/MRP degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of nursing is not guaranteed to students holding a Pre-Nursing DTA/MRP degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete 100-105 credits in courses numbered 100 or above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, quantitative/ symbolic reasoning—5 credits, humanities—15 credits, social sciences -20 credits, mathematics/science-40-45 credits, health-related and physical education/recreational and leisure activities—5 credits. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. Note: Students should always check with the receiving university for additional requirements. Most have competitive admissions and require one year of residency at their institution.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement.

CMST& 101 ENGL& 101, 102

# II. Intermediate Algebra and Quantitative/Symbolic Reasoning (5 credits)

# Both A and B must be satisfied.

**A. Intermediate Algebra proficiency** may be demonstrated: 1) by obtaining appropriate scores on the intermediate algebra placement exam; or 2) by completing and passing an intermediate algebra course in college (MATH 097, 098, or 099) with a grade of 2.0 or better. Intermediate Algebra proficiency does not count toward credits required for this degree.

**B.** Quantitative/Symbolic Reasoning (5cr) BUS 217 OR MATH 221

# III. Humanities (15 credits)

A total of 15 credits required in **three** subject areas. Courses must be selected from Groups A, B, or C with no more than two from any one group. No more than 5 credits in a foreign language or ASL or HUM/HUM&.

# GROUP A: Literature and Language

CMST 227

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 2201 Foreign Language OR ASL-5 credits only JOURN 110

# **GROUP B: Aesthetic Experience**

ART 108, 109, 110, 112; ART& 100 DRMA& 101

HUM 141, 221, 222, 223, 224, 225, 236 MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

# **GROUP C: Philosophy and the Humanities**

HUM 107, 201; HUM& 101 PHIL 210, 215, 220, 231; PHIL& 101, 106

# **IV. Social Sciences (20 credits)**

Select 15 credits from required courses in Group A and any 5 credit course in Group B.

# **GROUP A: Human Behavior (15cr)**

PSYC& 100 AND 200 SOC& 101 OR 201

# **GROUP B: Human Enterprise (5cr)**

ECON 100; ECON& 201, 202

HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219

POLS 102, 125, 201, 204, 205; POLS & 101, 202, 203

# V. Mathematics/Science (40-45 credits)

A total of 40-45 credits are required. Complete all courses listed in Group B.

**GROUP A: Mathematics** 

MATH& 1411

GROUP B: Science (40cr) (all courses required) Life Sciences

BIOL& 160, 241, 242, 260

NUTRI 251

Physical Sciences

CHEM& 121, 122, 123

### VI. Health-Related/PE/Recreational/Leisure Activities Courses (5 credits)

A minimum of 5 credits and two courses from the following groups. One course must be from Group A and one course from Group B.

GROUP A: Minimum of one course from: ART 122

HLTH 101, 104, 174

PE 170

GROUP B: Minimum of one course from:

AQUAT 101, 110, 115, 132, 136, 224, 230, 232

ART 101, 102, 103, 104, 105, 106, 127, 151, 180, 186, 188, 189, 197, 205 CMST 223, 224, 225

DRMA 106, 107, 108

MUSC 115, 127, 139, 145, 148, 151, 170, 171, 176, 177, 178, 182, 215, 227, 239, 245, 248, 251, 276, 277, 278, 282

PE 100, 101, 102, 105, 106, 107, 108, 112, 114, 115, 116, 117, 118, 120, 122, 126, 127, 130, 135, 139, 140, 141, 143, 144, 145, 146, 147, 149, 151, 154, 156, 157, 158, 159, 160, 164, 165, 169, 177, 182, 185, 186, 187, 188, 200, 201, 202, 205, 206, 207, 208, 212, 214, 215, 216, 217, 218, 220, 222, 226, 227, 230, 235, 239, 240, 241, 243, 244, 245, 246, 247, 249, 251, 254, 256, 257, 258, 259, 260, 264, 265, 269, 277, 282, 285, 286, 287, 288

### **PHOTO 101**

# It is recommended that sequential science courses be completed at one institution.

<sup>1</sup> Required at UW and Seattle University only.

Note: Some institutions have requirements for admission to the major and institutions that go beyond those specified above. Students can meet these requirements by careful selection of additional elective courses. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE OF SCIENCE TRANSFER (TRACK 1) DEGREE

# **BIOLOGICAL SCIENCES, ENVIRONMENTAL/RESOURCE** SCIENCES, CHEMISTRY, GEOLOGY AND EARTH SCIENCE

The Associate of Science Transfer (AS-T #1) degree is designed to prepare students for upper division study in the areas of biological sciences, environmental/resource sciences, chemistry, geology and earth science. A candidate for an Associate of Science Transfer degree must complete 90 credits in academic courses numbered 100 or above with a cumulative grade point average of at least 2.0. Courses must be chosen from the following specified distribution areas: communication—5 credits, humanities/social sciences—15 credits, mathematics—10 credits, science—45-50 credits, and 10 - 15 credits in approved academic electives. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (5 credits)

Courses from this area do not satisfy the writing-intensive requirement. ENGL& 101, 102, 235

**IOURN 220** 

# II. Humanities/Social Sciences (15 credits)

Minimum of 5 credits from Group A: Humanities. Minimum of 5 credits from Group B: Social Sciences. Additional 5 credits from Group A or Group B. No more than 5 credits in a foreign language or ASL.

# **GROUP A: Humanities**

ART 108, 109, 110, 112; ART& 100 **CMST 227** DRMA& 101 ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220 Foreign Language **OR** ASL – 5 credits only HUM 107, 141, 201, 221, 222, 223, 224, 236; HUM& 101 **IOURN 110** MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

PHIL 210, 215, 220, 231; PHIL& 101, 106

# **GROUP B: Social Sciences**

ANTH& 100, 206, 210 ECON 100; ECON& 201, 202 GEOG 101, 230, 260 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219 POLS 102, 125, 201, 204, 205; POLS& 101, 202, 203 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 261; SOC& 101, 201 WS 201

# III. Mathematics (10 credits)

10 credits at or above introductory calculus.

MATH 220, 274; MATH& 151, 152, 153, 254

# IV. Science (45-50 credits)

Each group must be satisfied.

**GROUP A: Chemistry (15cr sequence)** 

CHEM& 161, 162, 163 OR CHEM& 241/251, 242/252, 243/253 GROUP B: Third quarter calculus or approved statistics course (5cr)

MATH 221 OR MATH& 153

# **GROUP C: Biological Sciences or Physics (15cr)**

15 credits from listed Biological Science courses OR a 15 credit Physics sequence<sup>1</sup>.

Biological Sciences (laboratory courses) BIOL& 221, 222, 223

Physics Sequence<sup>1</sup>

PHYS 101, 102, 103 **OR** PHYS 201, 202, 203

# **GROUP D: Additional 10-15 science credits**

Choose from listed courses, preferably in a 2 or 3 quarter sequence.

Group A

Group B

Group C

GEOL 201, 210; GEOL& 100

MATH 220, 274; MATH& 254

**Note:** Biology majors should select organic chemistry or physics for this requirement.

# V. Electives (10-15 credits)

Additional college-level credits as needed to satisfy the 90 quarter credits required for this degree. These remaining credits may include prerequisites for major courses (e.g., pre-calculus), additional major coursework, or specific general education or other four-year institution requirements, as approved by a counselor or academic adviser.

<sup>1</sup> Some four-year institutions require Physics with calculus to meet this requirement.

# Notes:

- 1. Students are responsible for checking specific major requirements of four-year institutions in the year prior to transferring.
- 2. It is recommended that sequential science classes be completed at one institution.
- 3. Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- 4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular baccalaureate institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE IN BIOLOGY EDUCATION (AS-T #1) DEGREE

The Associate in Biology Education (AS-T #1) degree is an articulated transfer agreement for future secondary biology teachers between community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Biology Education AS-T #1 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/social sciences-10 credits, mathematics-15 credits, science-45 credits, and 5-7 credits in additional required course(s) and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement.

CMST& 101 ENGL& 101, 102

# II. Humanities/Social Sciences (10 credits)

PSYC& 100 AND one of the following:

ART 112 CMST 227 ENGL 247, 271, 272, 278 HUM 107, 224, 225, 241 MUSC 109, 124

# III. Mathematics (15 credits)

MATH 221; MATH& 151, 152

# IV. Science (45 credits required, 60 recommended)

30cr in Group A required, a minimum of 15cr in Group B required, and 15cr in Group C recommended.

### GROUP A: Chemistry (30cr)

CHEM& 161, 162, 163 AND CHEM& 241/251, 242/252, 243/253

GROUP B: Biological Sciences (15cr) BIOL& 221, 222, 223

**GROUP C:** Physics Sequence<sup>1</sup> recommended (15cr) PHYS 101, 102, 103 **OR** PHYS 201, 202, 203

V. Additional course(s) (5 – 7 credits required, 10 – 12 credits recommended)

EDUC 267/EDUC& 202 (SCC) **OR** EDUC& 202 (SFCC) (required) EDUC& 204 (recommended)

<sup>1</sup> Some four-year institutions require physics with calculus to meet this requirement.

# Notes:

- 1. Students are responsible for checking specific major requirements of four-year institutions in the year prior to transferring.
- 2. It is recommended that sequential science classes be completed at one institution.
- 3. Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular baccalaureate institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE IN CHEMISTRY EDUCATION (AS-T #1) DEGREE

The Associate in Chemistry Education (AS-T #1) degree is an articulated transfer agreement for future secondary chemistry teachers between community colleges and most four-year institutions. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Chemistry Education AS-T #1 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific

distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/ social sciences-10 credits, mathematics-10 credits, science-50 credits, and 5 - 7 credits in additional required course(s) and an additional 5 recommended credits in education. At least 5 credits must be Wdesignated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement. CMST& 101

ENGL& 101, 102

# II. Humanities/Social Sciences (10 credits)

PSYC& 100 AND one of the following:

ART 112 CMST 227 ENGL 247, 271, 272, 278 HUM 107, 224, 225, 241 MUSC 109, 124

# **III. Mathematics (10 credits)**

# MATH& 151 AND 152

IV. Science<sup>1</sup> (50 credits)

Each group must be satisfied.

GROUP A: Chemistry<sup>1</sup> (30cr)

CHEM& 161, 162, 163, 241/251, 242/252, 243/253

GROUP B: Third quarter calculus or approved statistics course<sup>1</sup> (5cr)

# MATH 221 OR MATH& 153

GROUP C: Physics Sequence<sup>1</sup> (15cr)

PHYS 101, 102, 103 OR PHYS 201, 202, 203

V. Additional course(s) (5 - 7 credits required, 10 - 12 credits recommended)

EDUC 267/EDUC& 202 (SCC) OR EDUC& 202 (SFCC) (required) EDUC& 204 (recommended)

<sup>1</sup> Students must check with transfer institution for specific local requirements. Notes:

- Students are responsible for checking specific major requirements 1. of four-year institutions in the year prior to transferring.
- 2 It is recommended that sequential science classes be completed at one institution.
- Students completing this Associate of Science Transfer (AS-T) degree 3. will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- 4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- This degree may not fulfill all general education requirements of a particular baccalaureate institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# **ASSOCIATE IN GENERAL SCIENCE EDUCATION** (AS-T #1) DEGREE

The Associate in General Science Education (AS-T #1) degree is an articulated transfer agreement for future secondary general science teachers between community colleges and most four-year institutions in the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in General Science Education AS-T #1

degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/social sciences-10 credits, mathematics—15 credits, science—40-45 credits, 5-7 credits in additional required course(s), and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement. CMST& 101

ENGL& 101, 102

# II. Humanities/Social Sciences (10 credits)

PSYC& 100 AND one of the following: ART 112 CMST 227 ENGL 247, 271, 272, 278 HUM 107, 224, 225, 241

MUSC 109, 124

# **III. Mathematics (15 credits)**

MATH 221; MATH& 151, 152

# IV. Science (40 - 45 credits)

Complete 3 of the 4 groups listed below. If the science requirement is met using Group D, then a 5 credit approved elective is required.

GROUP A: Chemistry Sequence<sup>1</sup> (15cr)

CHEM& 161, 162, 163 GROUP B: Biology Sequence<sup>1</sup> (15cr)

BIOL& 221, 222, 223

GROUP C: Physics Sequence<sup>1</sup> (15cr)

PHYS 101, 102, 103 OR PHYS 201, 202, 203

# GROUP D: Geology<sup>1</sup> (10cr)

GEOL 201 (SCC only); GEOL& 101

# V. Additional course(s) (5 - 7 credits required, 10 - 12 credits recommended)

EDUC 267/EDUC& 202 (SCC) OR EDUC& 202 (SFCC) (required) EDUC& 204 (recommended)

<sup>1</sup> Students must check with transfer institution for specific requirements.

### Notes:

- Students are responsible for checking specific major requirements 1. of four-year institutions in the year prior to transferring.
- It is recommended that sequential science classes be completed at 2 one institution.
- Students completing this Associate of Science Transfer (AS-T) degree 3. will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- 4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular baccalaureate institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE OF SCIENCE TRANSFER (TRACK 2) DEGREE

# COMPUTER SCIENCE, PHYSICS AND ATMOSPHERIC SCIENCE

The Associate of Science Transfer (AS-T #2) degree is designed to prepare students for upper division study in the areas of computer science, physics, and atmospheric science. A candidate for an Associate of Science Transfer degree must complete 90 credits in academic courses numbered 100 or above with a cumulative grade point average of at least 2.0. Courses must be chosen from the following specified distribution areas: communication—5 credits, humanities/social sciences—15 credits, mathematics—10 credits, science—30 credits, and 30 credits in approved academic electives. **At least 5 credits must be W-designated (writing-intensive)**. At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (5 credits)

Courses from this area do not satisfy the writing-intensive requirement.

ENGL& 101, 102, 235 JOURN 220

# II. Humanities/Social Sciences (15 credits)

Minimum of 5 credits from Group A: Humanities. Minimum of 5 credits from Group B: Social Sciences. Additional 5 credits from Group A or Group B.

# **GROUP A: Humanities**

ART 108, 109, 110, 112; ART& 100

CMST 227

DRMA& 101

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220

Foreign Language OR ASL - 5 credits only

HUM 107, 141, 201, 221, 222, 223, 224, 236; HUM& 101 IOURN 110

MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

PHIL 210, 215, 220, 231; PHIL& 101, 106

# **GROUP B: Social Sciences**

ANTH& 100, 206, 210 ECON 100; ECON& 201, 202 GEOG 101, 230, 260 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219 POLS 102, 125, 201, 204, 205; POLS& 101, 202, 203 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 261; SOC& 101, 201 WS 201

# III. Mathematics (10 credits)

10 credits at or above introductory calculus. MATH 220, 274; MATH& 151, 152, 153, 254

# IV. Science (30 credits)

Each group must be satisfied.

GROUP A: Physics<sup>1</sup> (15cr sequence)

PHYS 101, 102, 103 **OR** PHYS 201<sup>2</sup>, 202<sup>2</sup>, 203<sup>2</sup>

# GROUP B: Chemistry: (5cr)

CHEM& 161, 162, 163, 241/251, 242/252, 243/253

GROUP C: Computer Programming<sup>2</sup> (5cr)

CS 142 OR CS& 141

GROUP D: Third quarter calculus or approved statistics course: (5cr)

MATH 221 **OR** MATH& 153

# V. ELECTIVES (30 credits)

An additional 30 quarter credits, as needed, to satisfy the 90 quarter credits required for this degree. These courses should be planned with the help of a counselor or an academic adviser based on the requirements of the specific discipline at the four-year institution the student plans to attend.

- <sup>1</sup> Some four-year institutions require physics with calculus to meet this requirement.
- <sup>2</sup> Courses offered at SFCC only.

Notes:

- Students are responsible for checking specific major requirements of four-year institutions in the year prior to transferring.
- 2. It is recommended that sequential science classes be completed at one institution.
- 3. Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular baccalaureate institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE IN BIOENGINEERING AND CHEMICAL PRE-ENGINEERING (AS-T #2) DEGREE

The Associate in Bioengineering and Chemical pre-Engineering (AS-T #2) degree is a statewide articulated transfer agreement for future engineers between community colleges and most four-year institutions. A candidate for this degree must complete 95 credits in academic courses numbered 100 and above with a cumulative grade point average of at least 2.0. Courses must be chosen from the following specified distribution areas: communication—5 credits; humanities/ social sciences—15 credits; mathematics—25 credits; science/engineering—40 credits; and 10 credits in pre-engineering electives. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits are din residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (5 credits)

Courses from this area do not satisfy the writing-intensive requirement.

ENGL& 101, 102 JOURN 220

# II. Humanities/Social Sciences (15 credits)

Minimum of 5 credits from Group A: Humanities. Minimum of 5 credits from Group B: Social Sciences. Additional 5 credits from Group A or Group B. No more than 5 credits in a foreign language or ASL.

# **GROUP** A: Humanities

ART 108, 109, 110, 112; ART& 100 CMST 227 DRMA& 101 ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220 Foreign Language **OR** ASL – 5 credits only HUM 107, 141, 201, 221, 222, 223, 224, 236; HUM& 101 JOURN 110 MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243 PHIL 210, 215, 220, 231; PHIL& 101, 106

# **GROUP B: Social Sciences** ANTH& 100, 206, 210

GEOG 101, 230, 260 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219 POLS 102, 125, 201, 204, 205; POLS & 101, 202, 203

PSYC 204, 210, 250; PSYC& 100, 200, 220

SOC 204, 211, 221, 261; SOC& 101, 201 WS 201

# III. Mathematics (25 credits)

MATH 274; MATH& 151, 152, 153, 254

# **IV. Science (40 credits)**

Groups A and B requirements must all be met.

GROUP A: Physics (calculus-based) (15cr sequence) PHYS 201, 202, 203

GROUP B: Chemistry: (25cr)

# CHEM& 161, 162, 163, 241/251, 242/252

# V. Pre-Engineering Electives (10 credits)

Select two electives as appropriate for intended major and intended fouryear institution in consultation with the engineering adviser.

BIOL& 222 ENGL& 235 **ENGR 210** 

**MATH 220** 

Programming Course (CS 255)

<sup>1</sup> A course in Macro Economics is recommended.

# Notes:

- 1. Students are responsible for checking specific major requirements of four-year institutions in the year prior to transferring.
- It is recommended that sequential science classes be completed at one institution.
- 3. Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- 4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular four-year institution. Students should work with the engineering adviser for further guidance specific to their goals.

# ASSOCIATE IN COMPUTER AND ELECTRICAL **PRE-ENGINEERING (AS-T #2) DEGREE**

The Associate in Computer and Electrical pre-Engineering (AS-T #2) degree is a statewide articulated transfer agreement for future engineers between community colleges and most four-year institutions. A candidate for this degree must complete 100 credits in academic courses numbered 100 and above with a cumulative grade point average of at least 2.0. Courses must be chosen from the following specified distribution areas: communication-5 credits; humanities/ social sciences-15 credits; mathematics-30 credits; science/engineering-40 credits; and 10 credits in pre-engineering electives. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

# I. Communication (5 credits)

Courses from this area do not satisfy the writing-intensive requirement.

ENGL& 101, 102 JOURN 220

# II. Humanities/Social Sciences (15 credits)

Minimum of 5 credits from Group A: Humanities. Minimum of 5 credits from Group B: Social Sciences. Additional 5 credits from Group A OR Group B. No more than 5 credits in a foreign language or ASL.

# **GROUP A: Humanities**

ART 108, 109, 110, 112; ART& 100 CMST 227 DRMA& 101 ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278; ENGL& 111, 112, 113, 114, 220 Foreign Language **OR** ASL – 5 credits only HUM 107, 141, 201, 221, 222, 223, 224, 236; HUM& 101 JOURN 110 MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243 PHIL 210, 215, 220, 231; PHIL& 101, 106 **GROUP B: Social Sciences** ANTH& 100, 206, 210 ECON 100; ECON& 201, 2021 GEOG 101, 230, 260 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219 POLS 102, 125, 201, 204, 205; POLS & 101, 202, 203 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 230, 261; SOC& 101, 201 WS 201 **III. Mathematics (30 credits)** MATH 220, 274; MATH& 151, 152, 153, 254

# IV. Science/Engineering (40 credits)

Groups A, B, C and D requirements must all be met. GROUP A: Physics (calculus-based) (15cr sequence) PHYS 201, 202, 203

- **GROUP B: Chemistry: (5cr)** 
  - CHEM& 161
- GROUP C: Computer Programming<sup>2</sup>: (10cr) CS 253 and 255; OR CS 142 and CS& 141

**GROUP D: Engineering: (10cr)** 

ENGR 190, 210

# V. Pre-Engineering Electives (10 credits)

Select two electives as appropriate for intended major and intended fouryear institution in consultation with the engineering adviser.

BIOL& 222 ENGL& 235 **ENGR 201** 

<sup>1</sup> A course in Macro Economics is recommended.

Although 2 quarters of computer language are required for the AS-T #2, GU requires CS& 141 only for Electrical Engineering and EWU requires CS 255 only for Electrical Engineering. Students should consult intended transfer institution for computer language requirements.

# Notes:

- Students are responsible for checking specific major requirements 1. of four-year institutions in the year prior to transferring.
- It is recommended that sequential science classes be completed at 2. one institution.
- Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- 4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular four-year institution. Students should work with the engineering adviser for further guidance specific to their goals.

44 PROGRAMS OF STUDY

# ASSOCIATE IN MECHANICAL/CIVIL/ AERONAUTICAL/INDUSTRIAL PRE-ENGINEERING (AS-T #2) DEGREE

The Associate in Mechanical/Civil/Aeronautical/Industrial pre-Engineering (AS-T #2) degree is a statewide articulated transfer agreement for future engineers between community colleges and most four-year institutions. A candidate for this degree must complete 105 credits in academic courses numbered 100 and above with a cumulative grade point average of at least 2.0. Courses must be chosen from the following specified distribution areas: communication - 5 credits; humanities/ social sciences - 15 credits; mathematics - 30 credits; science/engineering – 50 credits; and 5 credits in approved academic electives. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

### I. Communication (5 credits)

Courses from this area do not satisfy the writing-intensive requirement. ENGL& 101, 102

JOURN 220

# II. Humanities/Social Sciences (15 credits)

Minimum of 5 credits from Group A: Humanities. Minimum of 5 credits from Group B: Social Sciences. Additional 5 credits from Group A **OR** Group B. No more than 5 credits in a foreign language or ASL.

# **GROUP A: Humanities**

ART 108, 109, 110, 112; ART& 100

CMST 227

DRMA& 101

ENGL 208, 209, 241, 247, 248, 249, 251, 259, 261, 271, 272, 278;

ENGL& 111, 112, 113, 114, 220

Foreign Language **OR** ASL – 5 credits only

HUM 107, 141, 201, 221, 222, 223, 224, 236; HUM& 101 IOURN 110

MUSC 108, 109, 124, 191, 235, 236, 237; MUSC& 105, 141, 142, 143, 241, 242, 243

PHIL 210, 215, 220, 231; PHIL& 101, 106

# **GROUP B: Social Sciences**

ANTH& 100, 206, 210 ECON 100; ECON& 201, 202<sup>1</sup> GEOG 101, 230, 260 HIST 107, 141, 142, 222, 230, 240; HIST& 116, 117, 118, 136, 137, 214, 219 POLS 102, 125, 201, 204, 205; POLS& 101, 202, 203 PSYC 204, 210, 250; PSYC& 100, 200, 220 SOC 204, 211, 221, 261; SOC& 101, 201 WS 201

### III. Mathematics (30 credits)

MATH 220, 274; MATH& 151, 152, 153, 254 IV. Science/Engineering (50 credits)

### Each group must be satisfied.

**GROUP A: Physics (calculus-based) (15cr sequence)** PHYS 201, 202, 203

# GROUP B: Chemistry: (10cr)

CHEM& 161, 162

**GROUP C: Engineering/Computing: (25cr)** CS 255

ENGR 103, 201, 202, 203

# V. Electives (5 credits)

Select one elective as appropriate for intended major and intended fouryear institution in consultation with the engineering adviser.

ENGL& 235 ENGR 203

<sup>1</sup> A course in Macro Economics is recommended.

### Notes:

- Students are responsible for checking specific major requirements of four-year institutions in the year prior to transferring.
- 2. It is recommended that sequential science classes be completed at one institution.
- 3. Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- 4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- 5. This degree may not fulfill all general education requirements of a particular four-year institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE IN PHYSICS EDUCATION (AS-T #2) DEGREE

The Associate in Physics Education (AS-T #2) degree is an articulated transfer agreement for future secondary physics teachers between community colleges and most four-year institutions. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Physics Education AS-T #2 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/ social sciences—10 credits, mathematics—30 credits, science—30 credits, and 5-7 credits in additional required course(s) and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

# DISTRIBUTION

Credits for a specific course may be used in only one distribution area requirement.

### I. Communication (15 credits)

Courses from this area do not satisfy the writing-intensive requirement.

CMST& 101 ENGL& 101, 102

### II. Humanities/Social Sciences (10 credits)

PSYC& 100 required **AND** one of the following: ART 112 CMST 227 ENGL 247, 271, 272, 278 HUM 107, 224, 225, 241 MUSC 109, 124

# III. Mathematics (30 credits)

- MATH 220, 274; MATH& 151,152, 153, 254 IV. Science<sup>1</sup> (30 credits)
- Each group must be satisfied.

GROUP A: Chemistry<sup>1</sup> (10cr)

- CHEM& 161, 162
- GROUP B: Physics Sequence<sup>1</sup> (15cr) PHYS 201, 202, 203

# V. Additional course(s) (5 – 7 credits required, 10 – 12 credits recommended)

EDUC 267/EDUC 202 (SCC) **OR** EDUC 202 (SFCC) (required) EDUC 204 (recommended)

<sup>1</sup> Students must check with transfer institution for specific requirements.

Notes:

- Students are responsible for checking specific major requirements of four-year institutions in the year prior to transferring.
- 2. It is recommended that sequential science classes be completed at one institution.
- 3. Students completing this Associate of Science Transfer (AS-T) degree will receive the same priority consideration for admission to the four-year institution as they would for completing the direct transfer associate's degree and will be given junior status by the receiving institution; this degree does not guarantee student's admission to the major.
- Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
- This degree may not fulfill all general education requirements of a particular baccalaureate institution. Students should work with a counselor or academic adviser for further guidance specific to their goals.

# ASSOCIATE OF FINE ARTS (AFA) DEGREE (SFCC)

The Associate of Fine Arts (AFA) program offers a solid foundation of art courses and some general undergraduate requirements for the student intending to pursue a liberal arts degree or a Fine Arts degree (BFA) at a four-year institution or for the student who will transfer to a professional art school. The AFA prepares students to transfer to a four-year institution with a minimum of 90 credits, which include many general university requirements. Art schools and university art departments may require that portfolios be submitted for admission into art programs. The AFA provides the student an opportunity to prepare a portfolio of original work. In addition, the AFA provides the student an opportunity to develop his/her skills and explore various avenues of creative image making.

Faculty coaching of studio and academic work is essential for this degree. At least 30 credits in art must be earned at Spokane Falls Community College, including the final quarter of the program. A cumulative grade point of 2.0 or better must be maintained. Students should meet with their art adviser to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

Refer to Art (Associate of Fine Arts) in the program outlines section of this catalog for program requirements.

# **CORRECTIONS (AAS-T) (SCC)**

The Corrections and Security curriculum is made up of courses designed to prepare students for a career in the corrections arena with an emphasis on developing skills and knowledge that pertain to working in correctional facilities.

The Corrections program is an outgrowth of recognition of the increasing need for trained personnel in the field. This area of criminal justice is experiencing a great deal of change and expansion. New trends in inmate management and new standards for offender care have contributed to an increased need for employment of more people who possess skills and knowledge applicable to a variety of job requirements.

This AAS-T degree is transferable to some four-year institutions. Students interested in transfer should contact the SCC Criminal Justice program instructors or the department chair for a list of four-year institutions that have agreed to accept this degree.

A prior criminal, traffic or drug history may exclude individuals from employment. For further information, contact a program instructor.

This is a recommended course of study. Students may take required courses any time they are offered. (Not all classes are offered every quarter.)

Program requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program. Any student with an arrest record must have department chair approval to take any Criminal Justice classes and/or to enter the Criminal Justice program.

# **CRIMINAL JUSTICE (AAS-T) (SCC)**

The Criminal Justice curriculum is made up of courses and a carefully selected group of general education requirements designed to prepare each student for a career in the field of criminal justice. These courses prepare students with theory and practical skills in the areas of patrol procedures, criminal procedures, marksmanship, physical training, investigations, interviewing, communication skills, and human relations.

Students are carefully counseled in order to ensure they are able to enter a law enforcement agency of their choice. This counseling process includes physical, mental and emotional areas, as well as background requirements. Students are required to take various examinations common to the field of criminal justice. These examinations include quarterly physical training assessments. Passing these physical training assessments is a prerequisite to CJ 237.

This AAS-T degree is transferable to some four-year institutions. Students interested in transfer should contact the SCC Criminal Justice program instructors or the department chair for a list of four-year institutions that have agreed to accept this degree.

Credits from the police academy training can apply toward meeting the course requirements of this program.

A prior criminal, traffic or drug history may exclude individuals from employment. For further information, contact a program instructor.

Program Requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program. Any student with an arrest record must have the department chair approval to take any Criminal Justice classes and/or to enter the Criminal Justice program.

# EARLY CHILDHOOD EDUCATION (AAS-T) (SFCC)

The AAS-T is an associate degree providing comprehensive core early childhood content (51-52 credits) based on the National Association for the Education of Young Children (NAEYC) and the Washington State Skill standards. The balance of the degree is made up of significant general education coursework (40 credits) necessary for transfer.

Graduation requirements for AAS-T in Early Childhood Education Development: 91-92 credits from the associate of arts degree and the associate in applied science degree:

- Communication Skills: 10 credits of English composition, or 5 credits of English composition and 5 credits of speech
- Quantitative Skills: 5 credits from quantitative reasoning courses mathematics
- Humanities: 5 credits from group A and 5 credits from group B or C
- Social Sciences: 5 credits from group A and 5 credits from group B
- Mathematics/Science: 5 credits from a laboratory course in group B sciences
- Writing and Diversity: At least one 5-credit writing-intensive course ("W" designated course) must be included within the distribution. At least 5 credits must be chosen from the approved list of diversity courses ("D" designated course).

# FIRE SCIENCE TECHNOLOGY (AAS-T) (SCC)

The Fire Science Technology program is designed to prepare students for entry-level careers as firefighters for municipal, industrial, state and federal fire departments. The primary mission of the Fire Science Technology program is identification and mitigation of emergencies in order to preserve life and property.

This AAS-T degree is transferable to some four-year institutions. Students interested in transfer should contact the SCC transfer office or the Fire Science program instructor for a list of four-year institutions that have agreed to accept this degree.

A 2.0 grade or better must be maintained in all courses required for a degree. EMT is a requirement by the end of the fifth quarter. This can be accomplished by taking LIFE 128 and LIFE 129 or by providing proof of certification from an outside agency.

# AVIATION/AIRWAY SCIENCE (SFCC)

# TO BE ARTICULATED WITH UNIVERSITY OF NORTH DAKOTA

Spokane Falls Community College (SFCC) has an articulation agreement with the University of North Dakota. This challenging two-year program articulates with the Commercial Aviation degree offered through the University of North Dakota's John D. Odegard School of Aerospace Sciences. Students also have the option to complete courses which can help them

transfer into the following four-year bachelor degree programs:

- Air Traffic Control, BS
- Airport Management, BBA
- Aviation Management, BBA
- Aviation Systems Management, BS
- Aviation Technology Management, BS
- Flight Education, BS
- Unmanned Aircraft Systems Operations, BS

Degrees from the programs listed above offer a multitude of career options including airline pilot, corporate pilot, air traffic controller, airline executive, space professional, airport manager and more.

Currently, there is an increasing demand for qualified pilots and air traffic controllers—a trend that is expected to last into the future.

At the end of two years, students will have earned the following certificates and ratings:

- Private Pilot Certificate
- Commercial Pilot Certificate with:
- Instrument Rating
- Multi-Engine Rating

For more information, contact the flight center or aviation counselor at SFCC.

# ARMY RESERVE OFFICERS TRAINING CORPS (ROTC) (SCC AND SFCC)

The Reserve Officer's Training Program (ROTC) is an Officer commissioning program for the United States Army. Students who finish the program and graduate from a four-year institution receive a commission and become a 2nd Lieutenant in the U.S. Army, National Guard or Reserve. Students who complete ROTC courses receive college credits in addition to the credits received in their academic discipline.

ROTC is a four-year program consisting of the Basic Course and the Advanced Course. The Basic Course is taken during the freshman and sophomore years and the Advanced Course during the junior and senior years. Completion of the Basic Course (or earning basic course credit) is a prerequisite to enroll in the Advanced Course. Basic course credit is given automatically to Veterans. Students can also earn Basic Course credit by attending the Leader's Training Course (LTC) at Fort Knox, KY. There is no service obligation incurred when taking the Basic Course (100- and 200-level courses). The Basic Course is open to any student who wants to learn about leadership, teamwork, time management, fitness and the U.S. Army. Upon successful completion of the Basic Course, students are eligible to contract with ROTC. It allows students to discover whether they want to continue into the Advanced Course and commission into the Army. Army ROTC courses are conducted through Community Colleges of Spokane (CCS) via a cross-enrollment agreement with Eastern Washington University (EWU). Students can earn the credits for the Basic Course while enrolled at SFCC and SCC in preparation for the Advanced Course. These classes are held at SFCC only. (See the Program Outlines section of this catalog for more details.)

For additional information contact the Department of Military Science at Spokane Falls Community College at 509-533-3455 or Eastern Washington University at 509-359-6110 or 509-359-2386.

Web sites: http://www.ewu.edu/x67971.xml or at http://www.goarmy. com/rotc/

# COLLEGE-LEVEL ENGLISH AS A SECOND LANGUAGE COURSES (SCC AND SFCC) AND INTENSIVE ENGLISH LANGUAGE

The following English as a Second Language (ESL) courses are offered to all students who have been admitted to campus credit programs. These courses are designed to prepare non-native speakers of English for transition into academic and vocational studies at SCC and SFCC. (Courses numbered below 100, although taken for credit, are nontransferable.)

### 

ENGL	ESE WIIIIIIg
ENGL052, 062, 072	ESL Reading
ENGL082	ESL Reading and Study Skills for the ENS (English for the Non- native Speaker)
ENGL053, 063, 073	ESL Listening and Speaking
ENGL	ESL Conversation
SPOKANE COMMUNITY COLLEC	)E
CMST110	Voice and Articulation
CMST111	Voice and Articulation I
CMST104, 105, 106, 204, 205, 206	College Ambassadors
ENGL	Communication for International
Students	
ENGL097	Basic Writing: From Sentence to Paragraph

# SPOKANE FALLS COMMUNITY COLLEGE

CMST	107
ENGL	098
ENGL	150
ENGL	195

 Academic Communication Skills for International Students
 Special Topics in English for International Students

ESL Speech

Writing Lab

For more information and proper placement into these and other English courses, ESL students are encouraged to call the International Programs Office at 509-533-3242 or www.spokanefalls.edu.

# **Career/Technical and Pre-Major/Transfer Outlines**

# **ACCOUNTING ASSISTANT/** ACCOUNTING CLERK

# AAS, Certificate: SCC

As a paraprofessional in the accounting field, the accounting assistant analyzes and interprets the essential information about the operations of a business and contributes vitally to important policies and decisions.

An accounting assistant should have above-average aptitude for working with numbers and the ability to concentrate and communicate. Accounting affords a continuing challenge to creative, alert minds.

Students will receive an Accounting Clerk Certificate after completing the first three quarters of the AAS degree. All students graduating from this program must have a minimum grade of 2.0 in each of the accounting, economics and general business required courses. Students must also have a 2.0 cumulative minimum grade point average in all required courses in this program.

This degree is non-transferable to a four-year university. Students working toward the associate of arts degree for transfer to a four-year institution should consult individually with an adviser or counselor for planning the AA degree program. For information on AA degree requirements, refer to the Degree and Certificate Requirements section of the CCS catalog. More information on specific transfer programs can be found in the Academic Programs section of the CCS catalog.

# AAS

# **First Ouarter**

ACCT BUS& CATT CATT	151 101 120 138	College Accounting I15Intro to Business.5Microsoft Word I.2.5Microsoft Excel I.2.5
<b>C</b>	0	Total
Secona	Qua	rter
ACCT	152	College Accounting II <sup>1</sup>
BUS	104	Business Mathematics
CATT	139	Microsoft Excel II
CATT	190	Total
Third O	uarte	er
ACCT	141	OuickBooks
ACCT	161	Payroll Procedures
ACCT	162	Business Tax Accounting 1
BT	109	Business Communications 5
		Total
Fourth	Quar	ter
ACCT	142	Advanced QuickBooks 5
ACCT	212	Accounting Applications and Analysis <sup>2</sup>
CMST&	101	Introduction to Communication
		Total
Fifth Qu	uarte	r
ACCT	204	Accounting Integration 5
BUS	280	Human Relations in Business
		Business Electives <sup>3</sup>
		Iotal
	uarte	
ACCI	218	Accounting Analysis Simulation
ACCI BUS &	200	Buciness Law
FCON	100	Fundamentals of Economics 5
LCON	100	Business Electives <sup>3</sup>
		Total 15

# 90 credits are required for the AAS.

# CERTIFICATE

First Q	uarte	۲ <b>۲</b>	
ACCT	151	College Accounting I <sup>1</sup>	5
BUS&	101	Intro to Business.	5
CATT	120	Microsoft Word I.	.2.5
CATT	138	Microsoft Excel I	.2.5
		Total	. 15
Second	l Qua	rter	
ACCT	152	College Accounting II <sup>1</sup>	5
BUS	104	Business Mathematics	5
CATT	139	Microsoft Excel II	. 2.5
CATT	190	Introduction to PowerPoint	. 2.5
		Total	. 15
Third (	Quart	er	
ACCT	141	QuickBooks	5
ACCT	161	Payroll Procedures	4
ACCT	162	Business Tax Accounting	1
BT	109	Business Communications	5
		Total	. 15

### 45 credits are required for the Certificate.

<sup>1</sup> These courses may be substituted with ACCT& 201 and 202.

<sup>2</sup> This course may be substituted with ACCT& 203.

<sup>3</sup> See academic adviser.

# **ACCOUNTING PRE-MAJOR**

# AA-DTA, Associate in Business DTA/MRP: SCC, SFCC

The accountant analyzes and interprets the essential information about the operations of a business and contributes to important policies and decisions. Accountants are also asked to interpret tax laws and analyze how these laws may influence a business' future decisions.

An accountant should have above-average aptitude for working with numbers and the ability to concentrate and communicate. Accounting affords a continuing challenge to creative alert minds.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Cour	rses to Consider <sup>1</sup> .	 
Total		 90

90 credits are required for the AA-DTA.

# ASSOCIATE IN BUSINESS DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Total		90
Suggested	Courses to Consider <sup>1</sup>	90

# 90 credits are required for the Associate in Business DTA/MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to the student's choice of transfer institution.

# ADMINISTRATIVE ASSISTANT

# AAS: SCC

The Administrative Assistant program combines a well-balanced academic program with expert office technology instruction giving students the diversified training and background needed to hold positions of responsibility and importance in many areas of the business world. This program helps raise the office skills of students to a professional level, gives students a technical background through completion of technical skill courses and an academic background, provides students a mature understanding of professional responsibilities and provides

### for minimum additional on-the-job training. AAS **First Quarter** ΒT Basic Grammar for Business II ..... 5 ΒT 105 Business Student Preparation ...... 5 ΒT 151 **Second Quarter** BT 109 Business Communications ...... 5 BT 165 BUS 103 Basic Business Math and Electronic Calculators<sup>1</sup> . . . . 5 CATT 102 **Third Quarter** BT 160 Job Preparation Techniques...... 3 BT 231 BT 235 MMGT 223 **Fourth Quarter** ACCT 151 College Accounting I<sup>2</sup> ..... 5 BT 201 Information Processing ..... 5 ΒT Business Correspondence ...... 5 272 **Fifth Quarter** BT 202 Advanced Information Processing ...... 5 ΒT ΒT Administrative Office Management......5 260 Approved Electives<sup>3</sup>......5 **Sixth Quarter**

		Total 1	7
MMGT	242	Project Management2.	5
CATT	241	Microsoft Project2.	5
CATT	128	Desktop Publishing	5
BT	285	Administrative Professional Internship	2
BI	263	Integrated Office Applications	5

### 100.5 credits are required for the AAS.

# **APPROVED ELECTIVES**

ACCT	141	QuickBooks 5	
BUS&	201	Business Law	
BUS	204	Introduction to Law	
BUS	280	Human Relations in Business	
CMST&	210	Interpersonal Communication	

<sup>1</sup> BUS 103 may be substituted with BT 128.

<sup>2</sup> ACCT 151 may be substituted with ACCT& 201.

<sup>3</sup> Select course from the list of approved electives.

# **ADMINISTRATIVE OFFICE** MANAGEMENT

# AAS: SCC

The Administrative Office Management program prepares students to manage functions in the office environment. This program is recommended to experienced office staff as well as entry-level office workers who are looking to increase their potential for promotion. Graduates will have expert office skills and in-depth software knowledge. The program provides training in office information systems, work process and organizational performance improvement, human relations, business communications, business decision making, project management, and human resource management.

# AAS

# **First Quarter**

BT	102	Document Processing	5
BT	109	Business Communications	5

BUS	103	Basic Business Math and Electronic Calculators <sup>1</sup> 5
CALL	102	Total
Second	Oua	rter
BT	165	Word Processing 5
BT	231	Office Procedures
CMST&	210	Interpersonal Communication
		Total
Third Q	uarte	er
ACCT&	201	Prin of Accounting I <sup>2</sup> 5
BT	201	Information Processing 5
BUS	280	Human Relations in Business
	_	Iotal
Fourth	Quar	
BI DT	202	Advanced Information Processing
DI	272	Introduction to Law <sup>3</sup>
MATH	204	Introduction to Finite Mathematics <sup>4</sup> 5
1011 111 1	201	Total
Fifth Ou	Jarte	r
BT	160	Iob Preparation Techniques
BT	250	Information Technology
BT	260	Administrative Office Management
CATT	241	Microsoft Project
MMGT	242	Project Management
		Total
Sixth Q	uarte	er
BT	263	Integrated Office Applications
BI CATT	285	Administrative Professional Internship
MMCT	120 231	Human Resource Management 5
101101	201	Total
102.5 ci	redite	are required for the AAS.
1 RIIS 1/	03 ma	u he substituted with BT 128
DUJ 10	so ma	у ос эпоэнники Willi D1 120.

<sup>2</sup> ACCT& 201 may be substituted with ACCT 151.

<sup>3</sup> BUS 204 may be substituted with BUS& 201.

<sup>4</sup> MATH 201 may be substituted with BUS 217 or MATH 221, both courses require prerequisite MATH 099 or appropriate placement score.

# ADMINISTRATIVE SECRETARY

# AAS: SFCC

At the core of almost every business are administrative support personnel. Students will gain proficiency in computer and Windows applications, learn the latest electronic communication tools, acquire speed and accuracy on the keyboard, and learn office procedures essential in today's business environment.

Students completing this degree will be competent in the following areas: taking notes at meetings and preparing minutes, oral and written communications, document formatting, basic accounting procedures, machine transcription, records management, office procedures, desktop publishing and spreadsheeting. Students will complete capstone courses which will integrate classroom learning into "real-world" office situations

Students will have the opportunity to bridge the gap between the classroom and the working world by participating in a work experience internship as well as model office simulations. Students may begin in entry-level positions as front office professionals and work their way up to higher paying administrative secretaries, administrative assistants, or office managers.

# AAS **First Quarter**

### BΤ ΒT 107 BUS 102 GENST 106 Internet Fundamentals ..... 1 IS 160

49 PROGRAM OUTLINES

Second	Qua	rter
ACCT	103	Fundamental Bookkeeping Procedures
BT	102	Document Processing 5
BT	108	Business Communications <sup>2</sup>
CAPPS	114	Access
		Approved Electives <sup>4</sup>
		Total
Third Q	luart	er
BT	103	Formatting 5
BT	155	Records Information Management
BT	231	Office Procedures5
BT	272	Business Correspondence 5
		Total
Fourth	Quar	rter
BT	232	Office Procedures II
BT	235	Machine Transcription 5
BT	258	Desktop Publishing 5
CAPPS	112	Excel
CAPPS	120	Outlook
		Total
Fifth Q	uarte	r
BT	255	Business Productivity Tools
BT	260	Administrative Office Management5
BUS	280	Human Relations in Business <sup>5</sup> 5
		Approved Electives <sup>4</sup>
		Total
Sixth Q	uarte	er
BT	160	Job Preparation Techniques
BT	201	Information Processing 5
BT	234	Administrative Professional Practicum5
BT	285	Administrative Professional Internship 2
		Total
98 cred	lits a	re required for the AAS.

- <sup>1</sup> Students may take BT 102 if they possess keyboarding skills at 35 wpm and knowledge of business document formatting. Permission of instructor recommended.
- <sup>2</sup> BT 107 and 108 may be substituted with ENGL& 101. If ENGL& 101 is substituted, total credits required for AAS degree are 97.

<sup>3</sup> BUS 102 may be substituted with BUS 103.

- <sup>4</sup> See department for listing of approved electives.
- <sup>5</sup> BUS 280 may be substituted with HS 136.

# ADMINISTRATIVE/COMPUTER SPECIALIST

# AAS: SFCC

This curriculum is designed to prepare students for careers as management information specialists, salesperson for vendors or retailers of microcomputer hardware and software, or technical support specialists. The beginning classes provide students with basic computer processing concepts and skills, along with necessary related accounting, management and communication skills. The advanced classes develop skills in microcomputer applications for business systems, operating systems and local area networks. Topics include programming, system software concepts, using applications packages, data base concepts, telecommunications and support of end users.

# AAS

# **First Quarter**

BT	101	Keyboarding <sup>1</sup>		
BT	107	Business Communications <sup>2</sup>		
BUS	102	Math Skills for Business <sup>3</sup>		
CAPPS	104	Beginning Windows Operating System 1		
IS	120	Business Computer Use		
		Total		
Second	Second Quarter			
BT	108	Business Communications <sup>2</sup>		
CAPPS	110	Word		
CAPPS	120	Outlook 2		

IS IS IS IS	142 143 144 160	Hardware Fundamentals.3Operating System Fundamentals.2Programming Fundamentals.3Internet Fundamentals.1Total.17
Third O	uarte	er
ACCT& BUS CAPPS CAPPS	201 280 112 114	Prin of Accounting I <sup>4</sup> 5         Human Relations in Business <sup>5</sup> 5         Excel       3         Access       3         Total       16
Fourth	Quar	ter
BT BT IS IS	258 272 162 210	Desktop Publishing    5      Business Correspondence    5      Data Communications and Networks    3      Internet Programming I    3
	to	
BT BT IS	255 260 164	Business Productivity Tools       3         Administrative Office Management       5         Network Management       5         Elective <sup>6</sup> 2
		Total
Sixth Q	uarte	er
BT BT BT	160 201 285	Job Preparation Techniques       3         Information Processing       5         Administrative Professional Internship       2         Elective <sup>6</sup> 4
		IOTAL

### 93 credits are required for the AAS.

- <sup>1</sup> Students may take BT 102 if they possess keyboarding skills at 35 wpm and knowledge of business document formatting. Permission of instructor recommended.
- <sup>2</sup> BT 107 and 108 may be substituted with ENGL& 101. If ENGL& 101 is substituted, total credits required for AAS degree are 92.
- <sup>3</sup> BUS 102 may be substituted with BUS 103.
- <sup>4</sup> Students may take ACCT 103 (3 credits) AND two credits of approved accounting credits. Permission of instructor.
- <sup>5</sup> BUS 280 may be substituted with HS 136.
- <sup>6</sup> See department for listing of approved electives.

# **AGRICULTURE BUSINESS**

# AAS, Certificate: SCC

The Agriculture Business program is designed to train students for entrylevel employment in the agricultural chemical and fertilizer industry as well as grain and farming operations. Program graduates are qualified for advancement into sales, service, field representative and branch management positions.

# AAS

### **First Quarter** AGHRT 104 Principles of Pest Management ...... 5 AGHRT 171 Agricultural Leadership Training<sup>1</sup>.....1 ENGL& 101 ENVS 210 Second Quarter AGHRT 101 Basic Crop Science<sup>1</sup> ..... 5 AGHRT 172 Agricultural Leadership Training<sup>1</sup>.....1 Soil Management and Fertility<sup>1</sup>.....5 AGHRT 219 ENVS 110 **Third Quarter** AGHRT 225 Weed Biology and Control<sup>1</sup>......5 AGHRT 230 AGHRT 232 Pest Management Project<sup>1</sup> ..... 2 BUS 104 Business Mathematics ...... 5

# PROGRAM OUTLINES

### **Fourth Quarter**

	Basic Business Core	
	Total	
Fifth Qua	rter	
	Basic Business Core	
	Total	
Sixth Qua	rter	
	Basic Business Core	10
	Total	10

### 99 credits are required for the AAS.

# CERTIFICATE

# **First Quarter**

		Total 1	6
ENVS 2	10	Environmental Soil Science <sup>1</sup>	5
ENGL& 1	01	English Composition I	5
AGHRT 1	71	Agricultural Leadership Training <sup>1</sup>	1
AGHRT 1	04	Principles of Pest Management	5

# **Second Quarter**

<b>The Lo</b>			
		Total	5
ENVS	110	Plant Biology <sup>2</sup>	5
AGHRT	219	Soil Management and Fertility <sup>1</sup>	5
AGHRT	172	Agricultural Leadership Training <sup>1</sup>	1
AGHRT	101	Basic Crop Science <sup>1</sup>	5

# Third Quarter

BUS	104	Business Mathematics	5
AGHRT	232	Pest Management Project <sup>1</sup>	2
AGHRT	230	Plant Problem Diagnosis <sup>1</sup>	5
AGHRT	225	Weed Biology and Control <sup>1</sup>	5

# 49 credits are required for the Certificate.

# SMALL EQUIPMENT REPAIR SPECIALIST

SCC's one-quarter Small Equipment Repair Specialist is designed to provide entering students or currently employed individuals with the skills needed to succeed in an entry-level position maintaining and repairing a variety of small electric or gas-driven equipment used in landscape maintenance and agrichemical industries.

# **First Quarter**

	Total
AGGEN 156	Equipment Operation and Maintenance5
AGGEN 154	Small Engine Operation and Maintenance <sup>1</sup> 4
AGGEN 153	Oxy-acetylene Welding 4
AGGEN 152	Arc Welding 4

### 17 credits are required for the Certificate.

# **SPRAY TECHNICIAN**

SCC's one-quarter Spray Technician Certificate program is designed to provide entering students or currently employed individuals with the skills needed to succeed in an entry-level position applying pesticides and fertilizers in landscape maintenance and agrichemical industries.

# **First Quarter**

	Total	14
AGHRT 104	Principles of Pest Management	. 5
AGHRT 102	Pesticides and Fertilizer Application Equipment <sup>1</sup>	. 4
AGGEN 156	Equipment Operation and Maintenance	. 5

### 14 credits are required for the Certificate.

# BASIC BUSINESS CORE

ACCT	151	College Accounting I
AGHRT	102	Pesticides and Fertilizer Application Equipment 4
BUS&	101	Intro to Business
BUS	280	Human Relations in Business
CIS	110	Introduction to Computer Applications
CMST&	101	Introduction to Communication
ECON	100	Fundamentals of Economics
ENGL&	102	Composition II
MMGT	100	Supervised Volunteer Experience
MMGT	101	Principles of Management
WATER	109	Introduction to Water Resources

- <sup>1</sup> Students are advised to check with the instructional dean to determine which quarter this course will be offered.
- <sup>2</sup> Students are advised to check with the instructional dean to determine which quarter this course will be offered. This related education requirement may be met by any course or combination of courses approved by the instructional dean.
- <sup>3</sup> This course may be substituted with ACCT& 201.
- <sup>4</sup> Keyboard skills are required.
- <sup>5</sup> CMST& 101 may be substituted with CMST 287.
- <sup>6</sup> ECON 100 may be substituted with a higher level ECON course.
- <sup>7</sup> ENGL& 102 may be substituted with ENGL& 235 or BT 272 (BT 109 is a prerequisite).

# **AGRICULTURE PRE-MAJOR**

# **AA-DTA: SCC**

Agriculture is one of the biggest businesses in the United States as well as Washington State. Although training in agriculture provides a good background for successful modern farming, it also prepares young men and women for several hundred different kinds of occupations having to do with agribusiness, technical and professional work in teaching, research and extension with state, federal, and private agencies.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Su	ggeste	ed C	Cours	ses	to C	Con	nsid	er1.		 							90
То	tal		• • •	• • •	• • •		• •		• • •	 • •	•	• •	-	•	• •	•	90

### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# **ANTHROPOLOGY PRE-MAJOR**

# AA-DTA: SCC, SFCC

Anthropology is the science of humans. It studies humans in relation to their distribution, origin, classification, culture, physical character, environment, and social relations. It strives to understand all humans and give us a better awareness of ourselves.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

	_		_
Suggested Courses to Consider <sup>1</sup>	 9	)(	J

# 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# ARCHITECTURAL TECHNOLOGY

# AAS, Certificate: SCC

The first year consists of line construction, lettering, architectural symbols, orthographic projections, freehand sketching, isometric and perspective pictorial drawing, light construction principles (materials and methods), use of drafting expressions international residential codes and the extensive use of CAD software. Additional emphasis is placed on architectural construction documents, which include building and wall sections, window and door schedules, stair design, site plans, footings and foundations, floor plans, exterior elevations and framing plans. Graphic representation using computer software is used in the production of documents of the common phrases of architectural design including programming, schematic design, design development and construction documents. Utilization of the above is finalized in the development of residential working drawings of varying degrees of complexity.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree.

The second year consists of architectural working drawings using CAD for commercial applications developed from a preliminary design; drafting techniques, standards and practices of the profession, including office procedure knowledge, use of building materials; structural framing systems as used in the building industry; and related engineering technical courses including mechanical and electrical systems for buildings.

# AAS **First Quarter**

### APLED 121 Applied Written Communication<sup>1</sup>......4 ARCHT 112 ARCHT 120 ARCHT 126 Introduction to Computer Assisted Drafting......5 Second Ouarter

-		
APLED 123	Leadership Skills for Business and Industry <sup>1</sup>	3
ARCHT 114	Architectural Math	3
ARCHT 122	Basic Residential Drafting	7
ARCHT 130	Residential Building Materials	4
	Total	17

# **Third Quarter**

-		
APLED 125	Employment Preparation <sup>1</sup>	3
ARCHT 124	Advanced Architectural Math	2
ARCHT 125	Residential Building Codes	2
ARCHT 132	Advanced Residential Drafting/CAD	7
ARCHT 139	Delineation	4
	Total	8

# **Fourth Quarter**

ARCHT 138	CAD Applications	. 5
ARCHT 240	Commercial Building Codes	. 3
ARCHT 242	Introduction to Commercial Drafting/CAD	. 8
ARCHT 246	Commercial Architecture Theory	. 3
	Total	19

### **Fifth Quarter**

Chuth O		
		Total
ARCHT	252	Basic Commercial Drafting/CAD 8
ARCHT	251	Advanced Commercial Building Codes 3
ARCHT	250	Introduction to Commercial Building Materials 4
ARCHT	134	Electrical and Mechanical Systems

### Sixth Ouarter

ARCHT	196	Special Problems <sup>2</sup>	4
ARCHT	262	Advanced Commercial Drafting/CAD <sup>2</sup>	10
ARCHT	263	Advanced Commercial Building Materials <sup>2</sup>	4
		Total	8

### 109 credits are required for the AAS.

### CERTIFICATE **First Quarter** APLED 121 Applied Written Communication<sup>1</sup>......4 ARCHT 126 Introduction to Computer Assisted Drafting...... 5 **Second Quarter** APLED 123 Leadership Skills for Business and Industry<sup>1</sup>......3 ARCHT 114 Architectural Math..... 3 Basic Residential Drafting ..... 7 ARCHT 122 ARCHT 130 Residential Building Materials ..... 4 **Third Quarter** ARCHT 124 Advanced Architectural Math..... 2 ARCHT 125 Residential Building Codes<sup>1</sup> ..... 2 ARCHT 132 Advanced Residential Drafting/CAD.

ARCHT 139	Delineation				
	Total				
54 credits are required for the Certificate.					

- <sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.
- <sup>2</sup> ARCHT 266 and ARCHT 267 or ARCHT 288 (no seminar) may be substituted for one or more of these courses with permission of the instructor.

# ARMY RESERVE **OFFICER'S TRAINING CORPS (ROTC)**

# **AA-DTA: SCC, SFCC**

The Reserve Officer's Training Program (ROTC) is an Officer commissioning program for the United States Army. Students who finish the program and graduate from a four-year institution receive a commission and become a 2nd Lieutenant in the U.S. Army, National Guard or Reserve. Students who complete ROTC courses receive college credits in addition to the credits received in their academic discipline.

ROTC is a four-year program consisting of the Basic Course and the Advanced Course. The Basic Course is taken during the freshman and sophomore years and the Advanced Course during the junior and senior years. Completion of the Basic Course (or earning basic course credit) is a prerequisite to enroll in the Advanced Course. Basic course credit is given automatically to Veterans. Students can also earn Basic Course credit by attending the Leader's Training Course (LTC) at Fort Knox, KY. There is no service obligation incurred when taking the Basic Course (100- and 200-level courses). The Basic Course is open to any student who wants to learn about leadership, teamwork, time management, fitness, and the U.S. Army. Upon successful completion of the Basic Course, students are eligible to contract with ROTC. It allows students to discover whether they want to continue into the Advanced Course and commission into the Army.

Army ROTC courses are conducted through Community Colleges of Spokane (CCS) via a cross-enrollment agreement with Eastern Washington University (EWU). Students can earn the credits for the Basic Course while enrolled at SFCC and SCC in preparation for the Advanced Course. These classes are held at SFCC only. SCC students must travel to SFCC for classes.

# AA-DTA

# See transfer degree requirements in the Transfer Program Outlines section of this catalog.

WHO MAY ENROLL?

Any male or female student enrolled at SFCC or SCC.

# **SCHOLARSHIPS**

Students can apply for 2-, 3-, and 4-year active duty scholarships which will pay full tuition costs and mandatory fees, and a quarterly book stipend of \$400. A monthly stipend is also included (\$350 to \$500 a month). If a student doesn't want to serve on active duty after receiving their commission, they can apply for a Guaranteed Reserve Forces Duty (GRFD) Scholarship prior to contracting and serve in the National Guard or Reserves. The GRFD Scholarship pays the ROTC stipend as stated above plus the GI Bill, the GI Bill kicker, Federal Tuition Assistance (\$4,500 yearly), reserve pay at the E-5 rate, a book stipend of \$1,200 per year and room and board costs up to \$10,000 a year.

# NATIONAL GUARD AND RESERVE SOLDIERS

Students in the National Guard or Reserve Forces can apply for the Simultaneous Membership Program (SMP) at the beginning of their sophomore year. To qualify, students must have at least 45 quarter credit hours and contract with an Army ROTC program. Students will receive Federal Tuition Assistance of \$4,500 a year, the GI Bill, and monthly drill pay. Students might also be eligible for the GI Bill kicker.

# **TWO-YEAR PROGRAM**

College students who have not completed the Basic Course can do so by attending the 5-week Leader's Training Course (LTC) at Fort Knox, KY. Upon successful completion of LTC, students also become eligible for a 2-year scholarship. This scholarship provides for full tuition, book stipends, and a monthly ROTC stipend during the academic year.

# COST

All books, supplies and equipment needed for the ROTC program are provided by the Army at no cost to the students.

### MILITARY OBLIGATION

Students who enroll in the Basic Course incur no military obligation. All college credits earned from the ROTC course count like any other college elective. Students enrolled in the Advanced Course at any 4-year university do incur a military obligation with a variety of options available. There are opportunities for full-time professional military careers and part-time Reserve or National Guard assignments. The Reserve or National Guard commitment is two days a month and 14 days of Annual Training (AT) a year with possible deployments in support of the State and or Federal Government.

# ADDITIONAL INFORMATION

For additional information, contact the Department of Military Science at Spokane Falls Community College at 509-533-3455 or Eastern Washington University at 509-359-6110 or 509-359-2386.

Web sites: http://www.ewu.edu/x67971.xml, or at http://www.goarmy. com/rotc/

# ART (ASSOCIATE OF FINE ARTS DEGREE)

# **AFA: SFCC**

The Associate of Fine Arts (AFA) program offers a solid foundation of art courses and some general undergraduate requirements for the student intending to pursue a liberal arts degree or a Fine Arts degree (BFA) at a four-year institution or for the student who will transfer to a professional art school. The AFA prepares students to transfer to a four-year institution with a minimum of 90 credits, which include many general university requirements. Art schools and university art departments may require that portfolios be submitted for admission into art programs. The AFA provides the student an opportunity to prepare a portfolio of original work. In addition, the AFA provides the student an opportunity to develop his/her skills and explore various avenues of creative image making.

Faculty coaching of studio and academic work is essential for this degree. At least 30 credits in art must be earned at Spokane Falls Community College, including the final quarter of the program. A cumulative grade point of 2.0 or better must be maintained. Students should meet with their art adviser to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

Contact the SFCC Art Department for articulated AFA agreements with Eastern Washington University, Washington State University, The Evergreen State College, and Cornish College of the Arts.

# AFA

# **First Quarter**

100	Art Appreciation <sup>1</sup>
101	Fundamentals of Drawing 4
105	Color and Design 5
122	Health and Safety in Art 1
	Additional Studio Class Recommended <sup>2</sup> 0-5
	Total 15-20
Qua	rter
102	Drawing Composition <sup>3</sup> 4
106	3-D Design
112	Non-Western Art <sup>4</sup> 5
101	English Composition I 5
	Total
uarte	er
110	Modern Art <sup>5</sup>
161	Portfolio I <sup>6</sup> 1
180	Watercolor <sup>7</sup>
202	Figure Drawing
	Lab Science Elective
	Total
Quar	ter
130	Sculpture <sup>8</sup>
101	Introduction to Communication <sup>9</sup> 5
107	Math in Society 5
	Additional Studio Class Recommended <sup>2</sup> 0-5
	Total 14-19
	100 101 105 122 <b>Quan</b> 102 106 112 101 <b>uarte</b> 110 161 180 202 <b>Quar</b> 130 101 107

# **Fifth Quarter**

ART	205	Ceramics <sup>10</sup> Additional Studio Class Recommended <sup>2</sup> Non-Art Humanities Elective Social Sciences Elective		TLINES
		Total.	. 14-19	OO
Sixth	Quart	er		Σ
ART	186	Oil Painting <sup>11</sup>	4	RA
ART	261	Exhibit <sup>6</sup>	1 0-5 3-4 5	PROG
		Total	. 13-19	

# 92-113 credits are required for the AFA.

- <sup>1</sup> ART& 100 may be substituted with ART 108 or 112.
- <sup>2</sup> The faculty recommend that you take one (1) additional studio class during this quarter to build a stronger portfolio.
- <sup>3</sup> ART 102 may be substituted with ART 103.
- <sup>4</sup> ART 112 may be substituted with ART& 100 or ART 109.
- <sup>5</sup> ART 110 should be taken in the first year of the two-year program and is offered spring quarter only. Student cannot complete ART 161 without completing ART 110.
- <sup>6</sup> ART 161 and 261 are required classes. ART 161 is taught fall and spring quarters only and must be taken PRIOR to ART 261, which is taught spring quarter only.
- <sup>7</sup> ART 180 may be substituted with ART 186 or 188.
- <sup>8</sup> ART 130 may be substituted with ART 147, 189, 202 or 205.
- <sup>9</sup> CMST& 101 may be substituted with ENGL& 201
- <sup>10</sup> ART 205 may be substituted with ART 130 or 194.
- <sup>11</sup> ART 186 may be substituted with ART 180, 188, 190, 191, 192 or 193.
- <sup>12</sup> Any art course will serve as an art elective. Some classes can be repeatable courses. See college catalog for listing of courses and repeatable courses.

# **ART (CERTIFICATE IN FINE ARTS)**

# CFA-2D, CFA-3D: SFCC

The Certificate in Fine Arts (CFA) affirms completion of work and is suitable for art professionals, but is not a transfer certificate. However, the courses are above 100 and are listed in many catalogs for four-year colleges and universities. Most courses will transfer. The program can be completed in two years. To develop a better assimilation of concepts and skills, a longer time span may be suggested for some students.

Each CFA student is assigned an art adviser who helps plan his or her program. Students must submit a portfolio and participate in an exhibition during their final quarter. A candidate for a Certificate in Fine Arts must complete a minimum of 96 quarter hours with a grade point average of 2.0 or better. The art adviser and art faculty will work with and evaluate the work of the student before final approval and recommendation to award the Certificate in Fine Arts.

The faculty recommends that you take one additional studio class during the first quarter to build a stronger portfolio. Not all art classes are offered every quarter. Please contact the art department for course offerings.

# CFA-2D

# First Quarter

ART&	100	Art Appreciation <sup>1</sup>
ART	101	Fundamentals of Drawing
ART	105	Color and Design
ART	122	Health and Safety in Art 1
		Additional Studio Class Recommended <sup>2</sup> 0-5
		Total 15-20
Second	l Qua	rter
ART	102	Drawing Composition <sup>3</sup> 4
ART	106	3-D Design
		Communication Elective
		Repeatable Painting Course
		Total
Third (	Quart	er
ART	110	Modern Art <sup>4</sup>
ART	161	Portfolio I <sup>5</sup>

ART	202	Figure Drawing
Fourth	Quar	ter
ART	147	Advanced Design
ART	201	Experimental Drawing <sup>7</sup>
		Printmaking Elective
		Repeatable Required Course - List 1
		Total
Fifth O	Juarte	r
ART	191	Screen Printing
		Art Elective <sup>6</sup>
		Computation Elective <sup>8</sup> 3-
		Repeatable Painting Course
		Total 16-18
Sixth (	Quart	21
ART	202	Figure Drawing.
AKI	261	Exhibit <sup>o</sup>
		Human Relations Elective 3-
		Total 13-1
96-105	credi	ts are required for the CFA-2D
50 105	cicui	is the required for the environment.
CFA-3I	כ	
First Q	uarte	r
ART&	100	Art Appreciation <sup>1</sup>
ART	101	Fundamentals of Drawing.
ARI	105	Health and Safety in Art
AI	122	Additional Studio Class Recommended <sup>2</sup>
		Total
Secon	d Qua	rter
ART	102	Drawing Composition <sup>3</sup>
ART	106	3-D Design
		Communication Elective
		Repeatable Painting Course
		Total
Third (	Quart	
ART	110	Modern Art <sup>4</sup>
AKI ART	202	Figure Drawing
AI	202	Art Flective <sup>6</sup>
		Repeatable Required Course - List 1 <sup>6</sup>
		Total
Fourth	Quar	ter
ART	130	Sculpture
ART	147	Advanced Design
ART	202	Figure Drawing.
		Repeatable Ceramics Course
		Repeatable Required Course - List 2
		Iotal I
	uarte	r Caulatura
AKI	130	Art Elective
		Computation Elective <sup>8</sup> 3-
		Repeatable Ceramics Course
		Repeatable Required Course - List 3
		Total 16-18
Sixth (	Quart	er
ART	261	Exhibit <sup>5</sup>
		Art Elective <sup>6</sup>
		Human Relations Elective 3-
		Total

54

PROGRAM OUTLINES

BUS 10	3 Basi	c Business l	Math and	Electronic	Calculators	5

BUS	104	Business Mathematics 5
BUS	111	Math Skills 1
BUS	112	Advanced Calculator Skills
BUS	113	Fiscential Business Applications
BUS	114	Basic Retail Application
HUMA	N KEL	ATIONS ELECTIVE
BUS	105	Principles of Leadership
HS	136	Improving Interpersonal Communication5
PRINTI	MAKIN	IG ELECTIVE
ART	189	Printmaking
ART	190	Printmaking Relief 4
ART	192	Printmaking, Intaglio
ART	193	Lithography (Printmaking)
REPEA	TABLE	CERAMICS COURSE
ART	205	Ceramics
ART	206	Advanced Ceramics
ADT	100	Mataraalar 4
ARI	186	Oil Painting
ART	188	Acrylic Painting
	100	Activite rainting
REPEA	TABLE	REQUIRED COURSE - LIST 1
ART	130	Sculpture
ART	205	Ceramics
REPEA	TABLE	REQUIRED COURSE - LIST 2
ART	127	Visual Arts Special Workshops 1-15
ART	194	Jewelry
REPEA	TABLE	REOUIRED COURSE - LIST 3
ART	127	Visual Arts Special Workshops 1-15
ART	147	Advanced Design
ART	194	Iewelry
1 ADTS	5 100 1	may be substituted with APT 108 or 112
2 The fe	oultu v	nuy be substituted with ART 100 br 112.
this a	uarter	to huild a stronger nortfolio
<sup>3</sup> ART	102 ma	whe substituted with ART 103
4 ART	110 sh	ould be taken in the first year of the two-year program and is
offere	d sprin	ig quarter only. Student cannot complete ART 161 without
comp	leting 1	ART 110.
<sup>5</sup> ART	161 an	d 261 are required classes. ART 161 is taught fall and spring
quart	ers onl	y and must be taken prior to ART 261, which is taught spring
quart	er only	
6 Any i	art coui	rse will serve as an art elective. Some classes may be repeatable
cours	es. See	college catalog for listing of courses and repeatable courses.
7 ART	201 ma	y be substituted with ART 202.
<sup>8</sup> May i	be subs	tituted with any MATH course 100 level or above.

# AA-DTA: SFCC

A primary purpose of the Art Department is to offer a solid foundation of academic and studio art courses for transfer to a four-year institution. The AA degree is one of two options in art for transfer. The AA degree might be chosen by the student pursuing a liberal arts degree with an art minor or major. He/she may complete all basic art requirements at Spokane Falls Community College.

The core of art courses will provide a foundation for a liberal arts degree at a four-year institution. Some four-year institutions and most art schools, however, require many more studio courses and a portfolio of original art for admission into a fine arts program. If the SFCC student, after having checked the requirements of the transfer institution, needs to build a portfolio and strengthen his/her skills, that student might best select the AFA program.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>
Total

### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# **AUDIO TECHNOLOGY**

# AAS, Certificate: SFCC

The objective of this program is to prepare students for entry-level jobs and for self employment in the entertainment industry in the areas of digital/audio production, recording/live sound engineering and as broadcast and audio equipment technicians.

The certificate and first year of the AAS degree provides a basic understanding of the music technology/audio engineering field. Students learn principles and procedures of studio recording, CD production and live sound reinforcement. They also receive an introduction to state of the art software programs specific to the digital recording industry including ProTools. The first year also includes basic music theory, piano keyboard skills and the business aspects of the music industry.

The second year of the AAS degree provides advanced study and implementation of the above as well as intensive study of the ProTools operating system. Students will further develop their skills in studio recording, CD production, live sound reinforcement, song writing, and Musical Instrument Digital Interface (MIDI)/digital technologies for music arranging and film scoring.

### AAS

# **First Quarter**

AUDIO	116	Music Basics for Audio Professionals <sup>1</sup> 5
AUDIO	117	Introduction to Music Technology 5
AUDIO	155	Introduction to Recording5
		Functional Piano or Private Lessons Elective <sup>2</sup> 1-2
		Total16-17
Second	Qua	rter
AUDIO	113	Live Sound and Location Recording I 3
AUDIO	120	Digital Audio I 4
BT	107	Business Communications 3
BUS	102	Math Skills for Business 3
MUSC	114	Contemporary Harmony
		Functional Piano or Private Lessons Elective <sup>2</sup> 1-2
		lotal
Third Q	uart	
AUDIO	121	Digital Audio II
AUDIO	151	Audio Project I
AUDIO	150	Audio Engineering I
AUDIO	139	Total
Fourth	<b>^</b>	10tal
	Quar	Ceretary Calum and Maintan and
AUDIO	217	Digital Audio III
	255	Audio Engineering II
MUSC	214	Contemporary Harmony II/Songwriting 5
		Total
Fifth O	ıarte	¥
	205	MIDI Arranging 5
AUDIO	213	Live Sound II
AUDIO	219	Digital Audio IV
		Related Instruction Elective
		Total
Sixth Q	uarte	21
AUDIO	206	Scoring for Film and Multi-Media
AUDIO	220	Digital Audio V
AUDIO	251	Audio Projects II
AUDIO	260	Audio Portfolio1
AUDIO	266	Cooperative Education Seminar1
AUDIO	267	Cooperative Education Work Experience 1-3
		Related Instruction Elective
		Total
98-106	cradi	ts are required for the AAS

98-106 credits are required for the AAS.

# CERTIFICATE

# First Quarter

AUDIO	116	Music Basics for Audio Professionals <sup>1</sup> 5
AUDIO	117	Introduction to Music Technology 5
AUDIO	155	Introduction to Recording
		Functional Piano or Private Lessons Elective <sup>2</sup> 1-2
		Total16-17
Second	Qua	rter
AUDIO	113	Live Sound and Location Recording I
AUDIO	120	Digital Audio I 4
BT	107	Business Communications
BUS	102	Math Skills for Business 3
MUSC	114	Contemporary Harmony

Functional Piano or Private Lessons Elective<sup>2</sup>..... 1-2

# **Third Quarter**

AUDIO 12	21 D	Digital Audio II
AUDIO 15	51 A	udio Project I
AUDIO 15	56 A	udio Engineering I
AUDIO 15	59 B	Susiness of Music
	Т	'otal

47-49 credits are required for the Certificate.

### FUNCTIONAL PIANO OR PRIVATE LESSONS ELECTIVE

MUSC	166	Functional Piano I	2
MUSC	167	Functional Piano II.	2
MUSC	180	Private Lessons	1

### **RELATED INSTRUCTION ELECTIVE**

BT	108	Business Communications	3
BT	272	Business Correspondence	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	104	Business Mathematics	5
BUS	105	Principles of Leadership	3
BUS	280	Human Relations in Business	5
ENGL&	101	English Composition I	5
ENGL&	235	Technical Writing	5
HS	136	Improving Interpersonal Communication	5
<sup>1</sup> AUDIO	D 116	may be substituted with MUSC& 141.	
2 MILCO	100	in the taken we to three times. If taking minate lessons, finct and	

<sup>2</sup> MUSC 180 may be taken up to three times. If taking private lessons: first quarter select either piano or keyboarding; second quarter select keyboarding.

<sup>3</sup> AUDIO 206 may be substituted with AUDIO 256.

<sup>4</sup> BUS 104 may be substituted with any math course 099 or above.

# AUTOMOTIVE COLLISION AND REFINISHING TECHNICIAN

# AAS: SCC

The Automotive Collision and Refinishing Technician program teaches skills including metalwork, glasswork, refinishing, and welding. Instruction is primarily by demonstration and individual help in a shop situation where field conditions are simulated. This includes wire feed; plastic repair; a study of basic hand tools and their uses; basic metal straightening techniques; use of modern shop equipment; and basic refinishing methods. The advanced portion of the course involves practical applications in metal straightening; body and panel alignment; frame and chassis repair; and body repair including both major damage and miscellaneous repair. Modern refinishing and paint techniques are included.

A comprehensive study of automobile refinishing, material damage estimating, insurance procedures, and shop procedures is emphasized. Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

# AAS

# **First Quarter**

ABF	113	Introduction to Job Safety, Tools, and Equipment	4
ABF	114	Introduction to Unibody and Frame Alignment and	
		Repair	4
ABF	115	Basic Metal Straightening and Panel Alignment	4
ABF	116	Introduction to Estimating and Parts Identification	4
	110	individued of the Estimating and Fairs factorine and the	

# 55

PROGRAM OUTLINES

ABF	117	Automotive Collision MIG Welding
CIS	105	Computer Fundamentals for Vocations I 2
CIU	100	Total
		10tal
Second	Qua	rter
ABF	243	Advanced Unibody and Frame Alignment and Repair. 6
ABF	244	Advanced Metal Straightening and Panel Alignment
		Methods
ABF	245	Estimating Applications
APLED	112	Applied Mathematics <sup>1</sup>
		Total
Third O	Juart	er
ABF	133	Introduction to Industrial Safety and Hygiene 3
ABE	134	Introduction to Interior and Exterior Surface
1101	101	Preparation 4
ΔBE	135	Basic Polishing and Detailing
ABE	136	Introduction to Toncost Systems and Application
1101	100	Procedures 3
ABE	137	Basic Color Matching and Paint Mixing Fundamentals 3
API ED	125	Employment Preparation
	120	
	_	Iotal
Fourth	Quar	rter
ABF	263	Advanced Interior and Exterior Surface Preparation 4
ABF	264	Advanced Paint Application, Color Matching, and Paint
		Mixing
ABF	265	Materials and Cost Estimation
ABF	268	Advanced Finessing, Compounding, and Detailing 5
MMGT	205	Small Business Planning <sup>1</sup>
		Total
Fifth Q	uarte	r
ABF	123	Introduction to Major Panel Replacement
ABF	124	Introduction to Mechanical Components
ABF	125	Introduction to Maior Unibody and Frame Repair 5
ABF	126	Fundamentals of Shop Procedures 3
APLED	121	Applied Written Communication <sup>1</sup> 4
ISFTY	111	Industrial First Aid
101 1 1	111	Total 22
Civith O		10tall 11111111111111111111111111111111111
	uarte	
ABF	253	Intermediate Major Panel Replacement Applications <sup>2</sup> . 6
ABF	254	Intermediate Mechanical Components Applications <sup>2</sup> . 4
ABF	255	Intermediate Major Unibody and Frame Methods <sup>2</sup> 6
apled	123	Leadership Skills for Business and Industry <sup>2</sup>

<sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

119 credits are required for the AAS.

<sup>2</sup> ABF 266 and 267 or ABF 288 may be substituted for ABF courses in the sixth quarter with permission of the instructor.

# AUTOMOTIVE HIGH PERFORMANCE STREET ROD

# **Certificate: SCC**

The successful completion of the two quarter Automotive High Performance Street Rod program will enable graduates to enter the rapidly expanding automotive performance and customizing industry. Students will learn the skills necessary to restore and modify high performance automobiles. Students will receive specialized training in subjects ranging from body repair and fabrication to building and dyno tuning high performance engines. They also will have the knowledge and ability to safely and successfully operate sophisticated machinery. Students learn about materials used in today's high-tech and street rod engines. They are offered specialized training with intense theory and hands-on performance based objectives.

The Automotive High Performance Street Rod certificate program is offered to the person who has an automotive background and wishes to specialize as an Automotive High Performance Street Rod specialist. To enroll in the certificate program, the student should be currently enrolled in or have completed either the automotive technology program or auto body collision program or have automotive experience. Instructor permission is required before enrolling.

A 2.0 grade or better must be maintained in all automotive coursework before advancing to the subsequent quarter. Students not meeting this minimum requirement must repeat the course(s) before progressing.

# CERTIFICATE

# **First Quarter**

ABF	220	Welding	3
ABF	221	Sheet Metal Repair and Fabrication	4
ABF	222	Chassis and Suspension	3
ABF	223	Body Assembly	2
		Total	12
Second	Qua	rter	
AUTO	270	High Performance Engines	. 16
		Total	16

28 credits are required for the Certificate.

# AUTOMOTIVE TECHNOLOGY

# AAS, Certificate: SCC

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune-ups and brakes. Students may enter the program in any of the first five quarters. The one-year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 2. This flexible schedule also enables students to receive short-term certificates while pursuing their degree. Students must complete each AUTO course with a 2.0 grade or better before advancing to subsequent quarters.

Graduation Requirements:

 Industrial First Aid is a condition of graduation and must be obtained by the sixth quarter. This can be accomplished by taking ISFTY 111 or by providing current proof of certification from an outside agency. ISFTY completion must be submitted with petition to graduate.

# AAS

AUTO

# First Quarter

AGGEN AUTO	158 115 115	Oxy-acetylene Welding	1 4
AUTO	116	Diagnosis of Electronics and Accessories <sup>1</sup>	5
AUTO	215	Advanced Theory of Electronics and Accessories <sup>1</sup> .	3
AUTO	216	Advanced Diagnosis of Electronics and Accessories	<sup>31</sup> 4
		Total	17
Second	Qua	rter	
APLED	112	Applied Mathematics <sup>2</sup>	4
AUTO	211	Theory of Engines <sup>1</sup>	8
AUTO	212	Theory and Application of Engine Repair	8
		Total	20
Third Q	uart	er	
AGGEN	161	Advanced Maintenance Welding	1
AUTO	117	Theory of Engine Performance <sup>1</sup>	5
AUTO	118	Diagnosis of Engine Performance <sup>1</sup>	6
AUTO	119	Theory of Air Conditioning	2
AUTO	120	Air Conditioning Applications	3
CIS	105	Computer Fundamentals for Vocations I <sup>5</sup>	2
		Total	19
Fourth	Quar	rter	
APLED	125	Employment Preparation <sup>2</sup>	3
AUTO	122	Engine Performance, Service, and Repair	5
AUTO	221	Advanced Principles of Engine Performance, Air	
		Conditioning, and Electrical <sup>3</sup>	3
AUTO	228	Diagnosis of Hybrids	6
AUTO	230	Safety Procedures for Hybrids	2
		Total	19
Fifth Q	uarte	if a state of the	
AUTO	113	Theory of Transmissions/Transaxles <sup>3</sup>	3
AUTO	114	Diagnosis of Transmissions/Transaxles <sup>3</sup>	4
AUTO	129	Principles of Automatic Transmissions <sup>3</sup>	4

130 Service and Repair of Automatic Transmissions<sup>3</sup>.....5

PROGRAM OUTLINES

MMGT	205	Small Business Planning <sup>2</sup> 5
		Total
Sixth Q	uarte	er
APLED	121	Applied Written Communication <sup>2</sup> 4
AUTO	111	Theory of Brakes
AUTO	112	Theory and Application of Brake Repair 4
AUTO	131	Principles of Suspension Systems
AUTO	132	Service and Repair of Suspension Systems
		Total 20

### **Seventh Quarter**

Optional Summer Course —	
High Performance Engines <sup>4</sup> 0	-16
Total0	-16

116-132 credits are required for the AAS.

# CERTIFICATE

# AUTOMOTIVE TECHNOLOGY CERTIFICATE

The one-year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 2. This flexible schedule also enables students to receive short-term certificates while pursuing their degree. 56-58 credits are required for the certificate.Graduation Requirements: Industrial First Aid is a condition of graduation and must be obtained by the sixth quarter. This can be accomplished by taking ISFTY 111 or by providing proof of certification from an outside agency. ISFTY completion must be submitted with petition to graduate.

APLED	112	Applied Mathematics <sup>2</sup>
APLED	121	Applied Written Communication <sup>2</sup> 4
APLED	125	Employment Preparation <sup>2</sup>
		Any Three Quarters of AAS Degree <sup>6</sup> 45-47
		Total

56-58 credits are required for the Certificate.

# **AUTOMOTIVE TRANSMISSIONS/TRANSAXLES**

This short-term certificate program introduces students to the theory and operation of both manual and automatic transmissions/transaxles, differential, drive line, and constant velocity joints. Students learn the principles of steering and suspension systems including MacPherson struts and four-wheel alignment, late model transmissions, transaxles and sub assemblies. Practical applications include the diagnosis and repair of all types of transmissions/transaxles components.

# **First Quarter**

11010	100	Total	
AUTO	130	Service and Repair of Automatic Transmissions 5	;
AUTO	129	Principles of Automatic Transmissions 4	2
AUTO	114	Diagnosis of Transmissions/Transaxles 4	:
AUTO	113	Theory of Transmissions/Transaxles 3	;

# 16 credits are required for the Certificate.

### **BRAKES AND SUSPENSION**

This short-term certificate provides students with both theory and practical lab applications in automotive brake, suspension and hydraulic systems. Students gain experience in the diagnosis and repair of the following systems and components: master cylinder and hydraulic systems, drum and disc brakes, parking brakes, machining of brake drums and rotors, power brake units, and anti-lock brake systems.

# **First Quarter**

AUTO	111	Theory of Brakes
AUTO	112	Theory and Application of Brake Repair
AUTO	131	Principles of Suspension Systems
AUTO	132	Service and Repair of Suspension Systems
		Total

### 16 credits are required for the Certificate.

# **ELECTRONICS/ELECTRICAL**

This short-term certificate program introduces students to basic electrical concepts including Ohm's Law, magnetism, analog and digital meters, and test equipment. Students gain practical shop experience in the testing of such equipment as test lamps, voltmeters and ammeters. Hookup and testing of electronics and electrical components and circuits also are included.

# **First Quarter**

AUTO	115	Theory of Electronics and Accessories
AUTO	116	Diagnosis of Electronics and Accessories 5
AUTO	215	Advanced Theory of Electronics and Accessories 3
AUTO	216	Advanced Diagnosis of Electronics and Accessories 4
		Total

16 credits are required for the Certificate.

# **ENGINE PERFORMANCE/AIR CONDITIONING**

This two-quarter certificate program emphasizes both engine performance and air conditioning systems and components. Content areas include ignition systems, fuel and exhaust/emissions systems, theory of carburetion and ignition systems. Students are introduced to heating and air conditioning systems and gain practical shop experience in their diagnosis and repair procedures. An electronics/electrical certificate must be earned before taking these courses.

# First Quarter

AUTO	117	Theory of Engine Performance 5
AUTO	118	Diagnosis of Engine Performance
AUTO	119	Theory of Air Conditioning
AUTO	120	Air Conditioning Applications
		Total
Second	Qua	rter
AUTO	121	Principles of Engine Performance, Air Conditioning, and

	-	
AUTO	121	Principles of Engine Performance, Air Conditioning, and
		Electrical
AUTO	122	Engine Performance, Service, and Repair 5
AUTO	221	Advanced Principles of Engine Performance, Air
		Conditioning, and Electrical
AUTO	222	Advanced Engine Performance, Service, and Repair 4
		Total

32 credits are required for the Certificate.

# **ENGINE REPAIR**

This short-term engine repair certificate program provides students with theory and operation fundamentals of engine diagnosis. Students gain practical shop experience in engine repair, inspection of cylinder heads, valve trains, engine blocks, and lubrication and cooling systems.

# First Quarter

16 credits are required for the Certificate.			
		Total	6
AUTO	212	Theory and Application of Engine Repair	8
AUTO	211	Theory of Engines	8

### **OPTIONAL SUMMER COURSE – HIGH PERFORMANCE ENGINES**

- <sup>1</sup> These courses must be taken before AUTO 228 and 230.
- <sup>2</sup> This related education requirement may be met with any course or combination of courses approved by the instructional dean. Required related courses for one-year certificate are APLED 112,121,125 and ISFTY 111 (which may be taken through an outside agency).
- <sup>3</sup> AUTO 266 and 267 or 288 (no seminar) may be substituted. A maximum of 18 credits of cooperative education is allowed.
- <sup>4</sup> AUTO 270 for automotive technology students desiring to receive additional training may be taken summer quarter either after the 3rd or 6th quarter. Instructor permission required. Completion of this course will entitle the student to a certificate of completion issued by the dean of instruction for technical education.
- <sup>5</sup> This related education requirement may be met with any course or combination of courses approved by the instructional dean. CIS 105 may be substituted with MET 103 or CIS 110.
- <sup>6</sup> The one-year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in the certificate option.

# **AUTOMOTIVE: TOYOTA T-TEN**

### AAS: SCC

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune-ups and brakes. Students may enter the program in

# PROGRAM OUTLINES

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any of the first five quarters. The one-year certificate requires completion of any three quarters of the automotive technology program and three related classes identified in footnote 2 of the Automotive Technology program. This flexible schedule also enables students to receive shortterm certificates while pursuing their degree.

Students interested in receiving special training in Toyota T-TEN (Technical Education Network) may substitute specialized courses specifically catering to Toyota T-TEN option. Entrance into the program requires an interview with and permission of the instructor. Continuation within the course program requires permission of the instructor. Students must complete each AUTO course with a 2.0 grade or better before advancing to subsequent quarters.

# AAS

# **First Quarter**

AGGEN	161	Advanced Maintenance Welding 4
AUTO	102	Introduction to Toyota 1
AUTO	103	Introduction to Toyota Lab 1
AUTO	104	Toyota Internship 2
AUTO	105	Toyota Electrical Systems I 3
AUTO	107	Toyota Electrical Circuitry Theories
CIS	105	Computer Fundamentals for Vocations I <sup>1</sup> 2
		Total
Second	Qua	rter
APLED	123	Leadership Skills for Business and Industry <sup>2</sup> 3
AUTO	106	Toyota Internship 1
AUTO	123	Toyota Engine Performance I 2
AUTO	124	Toyota Engine Performance I Lab
AUTO	125	Toyota Engine Repair
AUTO	126	Toyota Engine Repair Lab 4
		Total
Third Q	uart	er
AUTO	127	Toyota Electrical Systems II
AUTO	128	Toyota Electrical Systems II Lab 1
AUTO	205	Toyota Internship
AUTO	207	Toyota Engine Performance II
AUTO	208	Toyota Engine Performance II Lab
ISFTY	111	Industrial First Aid <sup>2</sup> 2
		Total
Fourth	Quar	ter
APLED	121	Applied Written Communication <sup>2</sup>
AUTO	201	Toyota Brakes 3
AUTO	202	Toyota Brakes Lab 3
AUTO	203	Toyota Steering and Suspension
AUTO	204	Toyota Steering and Suspension Lab
		Total
Fifth Q	uarte	r
AUTO	209	Toyota Internship 12
AUTO	219	Toyota Hybrid Technology 2
		Total
Sixth Q	uarte	er de la companya de
APLED	112	Applied Mathematics <sup>2</sup>
AUTO	217	Principles of Automatic Transmissions
AUTO	218	Service and Repair of Automatic Transmissions 5
AUTO	223	Theory of Transmissions
AUTO	224	Diagnosis of Transmissions
		Total
Sevent	h Qua	arter
AGGEN	158	Oxy-acetylene Welding 1
AUTO	225	Toyota Heating and Air Conditioning
AUTO	226	Toyota Heating and Air Conditioning Lab
AUTO	236	Toyota Internship
		Total
112 cro	dite a	re required for the AAS

# 112 credits are required for the AAS.

<sup>1</sup> This related education requirement may be met with any course or combination of courses approved by the instructional dean. CIS 105 may be substituted with CIS 110.

<sup>2</sup> This related education requirement may be met with any course or combination of courses approved by the instructional dean.

# AVIATION MAINTENANCE TECHNOLOGY

# AAS, Certificate: SCC

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered the first two quarters are prerequisites to both the airframe and powerplant phase of the program. Students receive a well-rounded education in general aircraft mechanics the first two quarters of the program. Third- and fourth-quarter course offerings include both lecture and lab courses in airframe repair, and fifth- and sixth-quarter offerings include lecture and lab courses in powerplant repair. Courses to satisfy the requirements for an AAS degree will be by arrangement.

Graduates of the program are eligible to take the FAA examination for both the Airframe and Powerplant licenses. A minimum of 1,900 attendance hours is required to take these exams.

### AAS Eirct Augustan

FIrst Q	larte	r
ARCFT	115	Introduction to General Aircraft Maintenance 5
ARCFT	116	Introduction to General Aircraft Maintenance Shop 4
ARCFT	117	General Aircraft Maintenance5
ARCFT	118	General Aircraft Maintenance Shop 4
MATH	100	Vocational Technical Mathematics <sup>1</sup>
		Total
Second	Qua	rter
ARCFT	119	Advanced General Aircraft Maintenance 5
ARCFT	120	Advanced General Aircraft Maintenance Shop 4
ARCFT	135	Basic Airframe Maintenance 5
ARCFT	136	Basic Airframe Maintenance Shop 5
		Related Education Requirement <sup>2</sup> 3-4
		Total 22-23
Third Q	uart	er
ARCFT	137	Airframe Structures 5
ARCFT	138	Airframe Structures Shop 5
ARCFT	139	Airframe Systems
ARCFT	140	Airframe Systems Shop 5
		Related Education Requirement <sup>2</sup> 3-4
		Total
Fourth	Quar	ter
ARCFT	235	Advanced Airframe Systems
ARCFT	236	Advanced Airframe Systems Shop 5
ARCFT	237	Integrated Airframe Powerplant Maintenance 5
ARCFT	238	Integrated Airframe Powerplant Maintenance Shop 5
		Related Education Requirement <sup>2</sup>
		Total
Fifth Q	uarte	r
ARCFT	245	Aircraft Engines I
ARCFT	246	Aircraft Engines Shop I
ARCET	247	Aircraft Engines II
ARCFI	248	Aircraft Engines Shop II
		lotal
Sixth Q	uarto	
ARCFT	255	Powerplant Systems and Components I 5
ARCFI	256	Powerplant Systems and Components I Shop 5
ARCET	257	Powerplant Systems and Components II 5
AKCFI	258	Powerplant Systems and Components II Shop 5
		lotal
Sevent	n Qua	
		Additional Credits to Satisty FAA Requirements <sup>3</sup> . 0-20
		Total
129-152	crea	lits are required for the AAS.

# CERTIFICATE

# **AIRFRAME MAINTENANCE CERTIFICATE**

This two-quarter certificate provides students with both theory and practical lab application on advanced aircraft construction, rigging and repair, aircraft operation systems, aircraft warning systems, and advanced aircraft electrical systems. This certificate in conjunction with the General

PROGRAM OUTLINES

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Aircraft Maintenance Certificate would allow a student to be eligible to apply for a Federal Aviation Administration Maintenance Airframe License. Completion of the General Aircraft Maintenance Certificate is required before Airframe and/or Powerplant Certificate programs are taken. FAA requires 750 hours of attendance.

# **First Ouarter**

ARCFT	137	Airframe Structures	. 5
ARCFT	138	Airframe Structures Shop	. 5
ARCFT	139	Airframe Systems	. 5
ARCFT	140	Airframe Systems Shop	. 5
		Total	20

### **Second Quarter**

		Total	20
ARCFT	238	Integrated Airframe Powerplant Maintenance Shop	5
ARCFT	237	Integrated Airframe Powerplant Maintenance	5
ARCFT	236	Advanced Airframe Systems Shop	5
ARCFT	235	Advanced Airframe Systems	5

# 40 credits are required for the Certificate.

### **GENERAL AIRCRAFT MAINTENANCE CERTIFICATE**

This two-quarter certificate provides students with both theory and practical lab applications in aviation physics and aerodynamics, aircraft weight and balance, aircraft ground handling, basic aircraft electrical circuits, aircraft inspection techniques, aircraft materials and construction, and Federal Aviation Administration regulations and maintenance entries. Completion of this certificate is required before Airframe and/ or Powerplant Certificate programs are taken. FAA requires 400 hours of attendance. MATH 100 W 

MAIH	100	vocational lechnical Mathematics <sup>4</sup>
		Total
First Qu	uarte	r
ARCFT	115	Introduction to General Aircraft Maintenance 5
ARCFT	116	Introduction to General Aircraft Maintenance Shop 4
ARCFT	117	General Aircraft Maintenance5
ARCFT	118	General Aircraft Maintenance Shop 4
		Total
Second	Qua	rter
ARCFT	119	Advanced General Aircraft Maintenance5
ARCFT	120	Advanced General Aircraft Maintenance Shop 4
ARCFT	135	Basic Airframe Maintenance 5
ARCFT	136	Basic Airframe Maintenance Shop 5
		Total

### 40 credits are required for the Certificate.

# **POWERPLANT MAINTENANCE CERTIFICATE**

This two-quarter certificate provides students with both theory and practical lab application in powerplant theory and construction both for reciprocating and turbine engines, and theory and repair of powerplant accessories. This certificate in conjunction with the General Aircraft Maintenance Certificate allows students to be eligible to apply for a Federal Aviation Administration Maintenance Powerplant License. Completion of the General Aircraft Maintenance Certificate is required before Airframe and/or Powerplant Certificate programs are taken. FAA requires 750 hours of attendance.

# **First Quarter**

ARCFT	245	Aircraft Engines I
ARCFT	246	Aircraft Engines Shop I 5
ARCFT	247	Aircraft Engines II 5
ARCFT	248	Aircraft Engines Shop II
		Total
Second	Qua	rter
ARCFT	255	Powerplant Systems and Components I 5
ARCFT	256	Powerplant Systems and Components I Shop 5
ARCFT	257	Powerplant Systems and Components II 5
ARCFT	258	Powerplant Systems and Components II Shop5
		Total

# 40 credits are required for the Certificate.

# ADDITIONAL CREDITS TO SATISFY FAA REQUIREMENTS

ARCFT 275 Theory and Review - Airframe or Powerplant.... 1-10

ARCFT 276 Airframe or Powerplant Shop ..... 1-10

- <sup>1</sup> This course may be substituted with any course from the department preapproved substitution list or any related course or combination of courses approved by the instructional dean.
- This course may be chosen from a pre-approved departmental elective list or any related course or combination of courses approved by the instructional dean. A subtotal of 12 credits (a minimum of 3 in each category) in the related education areas of computation, written communication, and human relations/leadership is required for the AAS degree.
- <sup>3</sup> Available for students who have not accumulated 1900 hours or satisfied other FAA requirements.

# AVIATION/AIRWAY SCIENCE -ARTICULATED PROGRAM

# Articulation: SFCC

Spokane Falls Community College (SFCC) has an articulation agreement with the University of North Dakota. This challenging two-year program articulates with the Commercial Aviation degree offered through the University of North Dakota's John D. Odegard School of Aerospace Sciences. Students also have the option to complete courses which can help them transfer into the following four-year bachelor degree programs:

- Air Traffic Control, BS
- Airport Management, BBA
- Aviation Management, BBA
- Aviation Systems Management, BS
- Aviation Technology Management, BS
- Flight Education, BS
- Unmanned Aircraft Systems Operations, BS

At the end of two years, students will have earned the following certificates and ratings:

- Private Pilot Certificate
- Commercial Pilot Certificate with: Instrument Rating and Multi-Engine Rating

For more information, contact the flight center or aviation counselor at SFCC.

# BAKING: PROFESSIONAL PASTRIES AND SPECIALTY CAKES

# **Certificate: SCC**

This program prepares students for employment in independent, specialty bakeries and professional cake decorating environments. The certificate provides practical and theoretical training in personal hygiene in the baking industry, baking machinery usage, and production training in the baking of artisan breads and pastries. Students learn decorating, including proper piping procedures, tube usage, flower creation and decoration, color mixing and design principles.

A 2.0 grade or higher must be maintained in all APLED, BAK and HM courses for the certificate.

# CERTIFICATE

# **First Quarter**

BAK	101	Introduction to Baking and Pastries 1
BAK	110	Artisan Breads
BAK	111	Pastries
HM	112	Hospitality Mathematics <sup>1</sup> 3
		Total
Second	Quar	rter
BAK	120	Special Occasion Cakes
BAK	121	Tortes and Gateau
BAK	130	Sculptured Cakes
BAK	131	Rolled Fondant2.5
BAK	248	Wedding Cakes2.5
HM	115	Food Sanitation
		Total

# Third Quarter

inira y	uaru	er
APLED	121	Applied Written Communication <sup>1</sup> 4
APLED	123	Leadership Skills for Business and Industry <sup>1</sup> 3
BAK	266	Cooperative Education Seminar
BAK	267	Cooperative Education Work Experience
		Total

# 45 credits are required for the Certificate.

<sup>1</sup> This course may be substituted with any course or combination of courses approved by the instructional dean.

# **BIOLOGICAL SCIENCE PRE-MAJOR**

# AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

The Life Science Department offers courses in the fields of environmental biology, general biology, anatomy and physiology, nutrition, microbiology, botany and zoology. These courses allow students to investigate the scientific world either as a major area of study, part of the liberal arts curriculum or just to satisfy a curiosity.

Students in Biology can specialize in a wide array of areas such as Science Education, Zoology, Botany, Wildlife, Forestry, Fisheries, Ecology, Environment Science, Microbiology, and Biotechnology. Positions can be found in a variety of areas such as public and private educational institutions, private companies, and local, state, and federal government agencies. Entry level positions are very competitive, so student should consider graduate degrees.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# **AA-DTA**

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested (	Courses to Conside	r <sup>1</sup>	90
Total			

90 credits are required for the AA-DTA.

# ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested	(	Co	u	rse	es	tc	) (	C	01	ns	sic	de	er	1.	•					•	 •				•			9	)(
Total	•						-		-	-				-	-	-	-	-	-	-	-	-	-	•	-	-	-	9	0
	-	-		-										-				-											

# 90 credits are required for the Associate in Biology DTA/MRP.

# <sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# BIOMEDICAL EQUIPMENT TECHNICIAN

# AAS: SCC

This program is designed to prepare students for employment in the specialized field of biomedical electronics in a hospital or in the medical electronics industry.

The curriculum has been planned to give comprehensive training in circuit analysis, laboratory techniques and the use of modern test equipment. A balanced study of peripheral subjects that make the biomedical equipment technician unique also is included. These subjects include fundamentals of physics, chemistry, physiology, medical terminology, hospital ethics and hospital safety. The curriculum provides special lectures and laboratories in repair, and preventive maintenance of medical electronic equipment.

Graduates are prepared for employment as entry-level biomedical equipment technicians. To qualify for graduation, the student must have successfully completed five quarters of basic electronics including the additional required courses (i.e., chemistry and physics) and the six and seventh quarter biomedical sequence. Entrance to each quarter of basics is contingent upon satisfactory completion of the previous quarter. Students may enroll fall and winter quarters only. The clinical practicum is available during summer quarter only.

The goal of the program is to provide the health care field with bio-

medical equipment technicians who have a thorough understanding of electronic fundamentals; a practical ability to design, construct and troubleshoot electronic circuits; and knowledge about the theory of operation, physiological principles, and the safe and practical applications of biomedical equipment.

# AAS

FIRST Q	uarte	r
ELECT	110	Computer Fundamentals for Electronics 2
ELECT	111	DC Circuits
ELECT	112	DC Circuit Lab
ELECT	113	DC/AC Circuit Math 5
		Total
Second	l Oua	rter
APLED	121	Applied Written Communication <sup>2</sup>
ELECT	121	AC Circuits
ELECT	122	AC Circuit Lab
ELECT	123	Advanced DC/AC Circuit Math
		Total
Third O	Juart	PK
ELECT	136	Solid State Devices/Circuits 5
ELECT	137	Solid State Devices/Circuits Lab 4
ELECT	138	Linear Devices/Circuits
ELECT	139	Linear Devices/Circuits Lab
PHYS	100	Introductory Physics <sup>2</sup>
		Total
Fourth	Ouar	ter
CHEM8	z 121	Intro to Chemistry: w/Lab <sup>2</sup>
ELECT	211	Digital Concepts
ELECT	212	Digital Concepts Lab
ELECT	213	Basic Computer Systems
ELECT	214	Basic Computer Systems Lab
		Total
Fifth O	uarte	r
APLED	125	Employment Preparation <sup>3</sup> 3
FLECT	221	Communication Fundamentals 5
ELECT	222	Communication Fundamentals Lab 4
ELECT	223	Advanced Computer Systems 5
ELECT	224	Advanced Computer Systems Lab 4
		Total
Sixth O	uart	ek.
BIOEO	199	 Medical Terminology for Biomedical Equipment
DICLQ	1//	Technology <sup>1</sup> 2
BIOEO	242	Physiology for Biomedical Equipment Technology 3
BIOEO	251	Biomedical Instrumentation Patient Monitoring and
DICLQ	201	Clinical 10
BIOEO	252	Biomedical Instrumentation Laboratory 6
DIOLQ	202	Total
Sovent	ի Ոս։	artar
BIOFO	<b></b> 271	Biomedical Equipment Technology Clinical Rotation 10
BIOFO	271	Biomedical Seminar
DICLQ	<i>_1</i>	Total 14
144	dite -	are required for the AAS
144 Cre	uits à	ne required for the AAS.

<sup>1</sup> This course is offered spring quarter only.

- <sup>2</sup> It is recommended that students starting fall quarter should take APLED 121, CHEM& 121 and PHYS 100 during summer quarter to lighten their credit load for the third and fourth quarters. APLED 121 may be substituted by any course or combination of courses approved by the instructional dean.
- <sup>3</sup> These courses may be substituted by any course or combination of courses approved by the instructional dean.

# BIOTECHNOLOGY

# AAS: SCC

Biotechnology is a fascinating and rapidly changing field. Many of the techniques used in the industry today were known only to a few scientists in the world less than a decade ago. Scientists working in research and industry use biotechnology techniques to uncover the molecular basis for human diseases and for the production of new drugs and treatments, the enhancement of agricultural products, and

PROGRAM OUTLINES

the remediation of environmental problems. The SCC Biotechnology program prepares students for work in commercial or public research laboratories that rely on this cutting-edge technology. The curriculum provides a basic foundation in science disciplines including chemistry, biology, microbiology, genetics and immunology, as well as coursework in communications, mathematics and computer science. Students will build a working knowledge of molecular biology, recombinant DNA and tissue cultures through a broad-based program of lectures, hands-on laboratory experiences and work-based learning opportunities.

Job opportunities in biotechnology are increasing rapidly as new technologies are increasing, especially in the areas of medicine and agriculture. The completion of the human genome sequence promises to revolutionize the relationship between biotechnology and medicine, and similar results are expected in agriculture from the sequencing of genomes of major crop species. The biotechnology industry has more than tripled in size between 1992 and 2000. The Spokane region is home to an emerging biotechnology cluster with more than 50 biotech and biomedical firms (Spokane Area Economic Development Council) and is adjacent to a national biotechnology center in the Puget Sound region.

IMPORTANT: Courses with the BIOTC prefix are NOT generally transferable to four-year institutions. Articulation agreements are currently being negotiated with universities in this area.

# AAS

# **First Quarter**

BIOL BIOL& ENGL&	120 160 101	Scientific Investigation.5General Biology w/Lab5English Composition I.5Total.15
Second	Qua	rter
BIOTC	120	Cell Culture Techniques 5
BIOTC	122	Good Manufacturing Practices
CMST	227	Intercultural Communication         5           Required Elective <sup>1</sup> 5
		Total
Third Q	uarte	21'
BIOL	244	Genetics 5
BIOTC	129	Introduction to Protein Chemistry 2
BIOTC	201	Scientific Communication
MAIH&	141	Precalculus I
Fourth	0	10(dl
Fourth	Quar	
		Required Elective <sup>2</sup> 1-5
<b>F</b> !{4 - 0-		IUldi I-3
	arte	Providence DNA
CUEM	201	Concrel Chamury/Lab I
PHYS	101	General Physics 5
11110	101	Total
Sixth O	uarte	2°
BIOL&	260	
BIOTC	220	Instrumental Analysis
BIOTC	261	Fermentation
CHEM&	162	General Chem w/ Lab II 5
		Total
Sevent	n Qua	arter
BIOL	237	Introduction to Immunology 5
CHEM&	163	General Chem w/ Lab III 5
		Required Elective <sup>3</sup> 2-8
		Total
90-100	credi	ts are required for the AAS.

# **REQUIRED ELECTIVE**

# BIOTC240Biotechnology Internship1-5BIOTC289Biotechnology Project Internship1-3BOT111Botany: Plant Structure and Function5ZOOL122Vertebrate Zoology5

<sup>1</sup> Students may choose between BOT 111 or ZOOL 122 but are encouraged to take both. Recommended enrollment is in the second and seventh quarters.

<sup>2</sup> BIOTC 240 with permission of instructor is required fourth quarter elective.
 <sup>3</sup> BIOTC 289 with permission of instructor is required for 1-3 credits. If additional credits are needed to meet the 90 credit minimum, select course from required electives.

# BUSINESS ADMINISTRATION PRE-MAJOR

# AA-DTA, Associate in Business DTA/MRP: SCC, SFCC

More people earn their living in business than in any other field of endeavor. Regardless of their basic training--whether it be in design, social services, health fields, the arts or a vocational area--most persons seeking employment turn to private business. The profit or loss within a company can depend on good business"know-how."Even those who do not earn their living through business enterprise directly (such as lawyer, small business owner and government employee) usually find it necessary to know something about business operations. Hence, the importance of business administration can hardly be overemphasized.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total.	90

90 credits are required for the AA-DTA.

# ASSOCIATE IN BUSINESS DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

90 credits are required for the Associate in Business DTA/ MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# BUSINESS AND SOFTWARE APPLICATIONS

# **Certificate: SFCC**

The Business and Software Applications Certificate-a three-quarter program of study-helps students develop math and communication skills required in a business environment. In addition, students learn computer applications and human relations skills. This certificate is intended to provide students with the essential skills and knowledge required for entry-level positions in business.

# CERTIFICATE

# First Quarter

BT	101	Keyboarding <sup>1</sup>	 	5
BT	107	Business Communications	 	3
BUS	102	Math Skills for Business	 	3
		Computer Elective	 	1-3
		Total	 . 12	2-14
Second	Qua	rter		
ACCT	103	Fundamental Bookkeeping Procedures	 	3
BT	108	Business Communications	 	3
BUS&	101	Intro to Business	 	5
CAPPS	112	Excel	 	3
CAPPS	116	PowerPoint	 	2
		Total	 	. 16
Third Q	uart	er		
BT	272	Business Correspondence	 	5
BUS	108	eBusiness	 	2
CAPPS	114	Access	 	2
		Human Relations Elective	 	3-5
		Total	 . 12	2-14

# 40-44 credits are required for the Certificate.

# **COMPUTER ELECTIVE**

IS	120	Business Computer Use 3
IS	160	Internet Fundamentals 1
HUMAN	REL	ATIONS ELECTIVE
BUS	280	Human Relations in Business
MMGT	223	Customer Service
<sup>1</sup> BT 101	may	<i>be substituted with BT 100 and CAPPS 110 for a total of five</i>

# **BUSINESS OCCUPATIONS**

# **Certificate: SCC**

The Business Occupations Certificate is designed to provide a balanced survey of business knowledge and skills that are core to the General Business Associate in Applied Science degree program and most other business AAS degree programs. All students graduating from this program must have a minimum grade of 2.0 on each of the accounting, economics and general business required courses. Students must also have a 2.0 cumulative minimum grade point average on all required courses in the program.

# CERTIFICATE

credits.

ACCT	151	College Accounting I <sup>1</sup> 5
BUS&	101	Intro to Business
BUS	280	Human Relations in Business <sup>2</sup> 5
		Business Electives <sup>3</sup> 16-17
		Computer Electives <sup>4</sup>
		Math Electives
		Speech Communication Electives 3-5
		Written Communication Electives 5-6
		Total

# 45-58 credits are required for the Certificate.

# **COMPUTER ELECTIVES**

ΒT	101	Keyboarding	5
CIS	110	Introduction to Computer Applications	5
CS	101	Computer Literacy.	5
IS	120	Business Computer Use	3

# MATH ELECTIVES

BUS	102	Math Skills for Business
BUS	103	Basic Business Math and Electronic Calculators $\ldots 5$
SPEECH	сом	MUNICATION ELECTIVES
CMST&	101	Introduction to Communication
CMST&	210	Interpersonal Communication
CMST	287	Business and Professional Communication3
WRITTE	N COI	MMUNICATION ELECTIVES
BT	107	Business Communications
BT	108	Business Communications 3

DI	107	business Communications	3
BT	108	Business Communications	3
BT	109	Business Communications	5
BT	272	Business Correspondence	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5

<sup>1</sup> ACCT 151 may be substituted with ACCT& 201.

<sup>2</sup> BUS 280 may be substituted with MMGT 101.

<sup>3</sup> See department for list of approved business electives.

<sup>4</sup> BT 101 or proven proficiency required. Students with keyboarding experience may waive this requirement by passing a department proficiency test.

<sup>5</sup> BUS 102 may be substituted with BUS 103.

# **BUSINESS OCCUPATIONS**

# **Certificate: SFCC**

The Business Occupations Certificate is designed to provide a balanced survey of business knowledge and skills that are core to the General Business Associate in Applied Science degree program and most other business AAS degree programs.

# CERTIFICATE

ACCT&	201	Prin of Accounting I <sup>1</sup> 5
BUS&	101	Intro to Business
BUS	280	Human Relations in Business <sup>2</sup> 5
		Business Electives <sup>3</sup> 16-17
		Computer Electives <sup>4</sup>
		Math Electives 3-5
		Speech Communication Electives <sup>5</sup>
		Written Communication Electives 5-6
		Total

# 47-58 credits are required for the Certificate.

# 

COMPU	IEK E	LECTIVES
BT	101	Keyboarding5
CIS	110	Introduction to Computer Applications
CS	101	Computer Literacy
IS	120	Business Computer Use 3
MATH E	LECTI	VES
BUS	102	Math Skills for Business
BUS	103	Basic Business Math and Electronic Calculators 5
SPEECH	сом	MUNICATION ELECTIVES
CMST&	101	Introduction to Communication
CMST&	210	Interpersonal Communication
WRITTE	N COI	MMUNICATION ELECTIVES
BT	107	Business Communications
BT	108	Business Communications 3
BT	109	Business Communications 5
BT	272	Business Correspondence 5
ENGL&	101	English Composition I

<sup>1</sup> ACCT& 201 may be substituted with ACCT 151.

<sup>2</sup> BUS 280 may be substituted with MMGT 101.

<sup>3</sup> See department for list of approved business electives.

<sup>4</sup> BT 101 or proven proficiency required. Students with keyboarding experience may waive this requirement by obtaining a waiver from the business technology department chair.

ENGL& 102 Composition II ..... 5

<sup>5</sup> Additional courses in written communication may be substituted for the speech communication list.

# **BUSINESS, GENERAL**

# AAS: SCC

The objective of this program is to permit the student maximum flexibility in designing a two-year program of study in business. The student may specialize in a particular area of business such as distribution, sales, or accounting; or select courses that provide a general exposure to several areas of business.

The General Business curriculum serves the student who is uncertain about transferring to a four-year institution or who wants a curriculum that maximizes transferability and at the same time permits emphasis on business courses to a greater extent than is possible when taking the general two-year transfer program.

Such a curriculum does not permit a student to complete all the courses normally required by a four-year institution in the freshman-sophomore years; however, it is possible for the student to undertake a curriculum where many of these requirements are met and where all other completed courses taken could be accepted for elective credit by the four-year institution. All students graduating from this program must have a minimum grade of 2.0 on each of the Management, Accounting, Economic, and General Business required courses. Students must also have a 2.0 cumulative minimum grade point average on all required courses in the program.

# AAS

5

# **OPTION 1**

ACCT	151	College Accounting I <sup>1</sup> 5
BUS&	101	Intro to Business 5
BUS	104	Business Mathematics <sup>2</sup> 5
BUS	280	Human Relations in Business 5
CIS	110	Introduction to Computer Applications <sup>3</sup>

CMST&	101	Introduction to Communication
ECON	100	Fundamentals of Economics <sup>4</sup> 5
ENGL&	101	English Composition I
IBE	201	Integrated Business and Entrepreneurship Principles I 10
IBE	202	Integrated Business and Entrepreneurship Principles II 10
IBE	203	Integrated Business and Entrepreneurship Principles III 10
MMGT	100	Supervised Volunteer Experience
MMGT	101	Principles of Management 5
MMGT	211	Marketing
		Business Electives <sup>5</sup>
		Written Communication Elective
		Total

# 92 credits are required for the AAS.

# **OPTION 2**

ACCT	151	College Accounting I <sup>1</sup> 5
BUS&	101	Intro to Business
BUS	104	Business Mathematics <sup>2</sup> 5
BUS	280	Human Relations in Business
CIS	110	Introduction to Computer Applications <sup>3</sup>
CMST&	101	Introduction to Communication
ECON	100	Fundamentals of Economics <sup>4</sup> 5
ENGL&	101	English Composition I
MMGT	100	Supervised Volunteer Experience
MMGT	101	Principles of Management
MMGT	211	Marketing
		Business Electives <sup>5</sup>
		Written Communication Elective
		Total

### 92 credits are required for the AAS.

# WRITTEN COMMUNICATION ELECTIVE

BT	272	Business Correspondence 5	,
ENGL&	102	Composition II	,
ENGL&	235	Technical Writing 5	,

- <sup>1</sup> ACCT 151 may be substituted with ACCT& 201.
- <sup>2</sup> BUS 103 or proficiency test is required.
- <sup>3</sup> Keyboarding skills are required.
- <sup>4</sup> ECON 100 may be substituted with a higher level ECON course.
- <sup>5</sup> See department for list of approved business electives. BUS 120 is strongly recommended.
- <sup>6</sup> BT 109 is prerequisite to BT 272.

# **BUSINESS, GENERAL**

# AAS: SFCC

The objective of this program is to permit the student maximum flexibility in designing a two-year program of study in business. The student may specialize in a particular area of business such as distribution, sales, or accounting; or select courses that provide a general exposure to several areas of business. The General Business curriculum serves the student who is uncertain about transferring to a four-year institution or who wants a curriculum that maximizes transferability and at the same time permits emphasis on business courses to a greater extent than is possible when taking the general two-year transfer program. Such a curriculum does not permit a student to complete all the courses normally required by a four-year institution in the freshman-sophomore years; however, it is possible for the student to undertake a curriculum where many of these requirements are met and where all other completed courses taken could be accepted for elective credit by the four-year institution.

# AAS

# **First Quarter**

BT	100	Beginning Keyboarding <sup>1</sup> 1
BT	107	Business Communications <sup>2</sup>
BUS&	101	Intro to Business
		Business Elective <sup>3</sup>
		General Elective <sup>4</sup> 5
		Total
Second	l Qua	rter
BT	108	Business Communications <sup>2</sup>

### BUS 103 Basic Business Math and Electronic Calculators . . . . . 5 BUS 108 eBusiness ..... 2 General Elective<sup>4</sup> ..... 5 PROGRAM OUTLINES **Third Quarter** 272 Business Correspondence ...... 5 ΒT Computer Software Elective . . . . . . . . . . . . . . . . . . 1 General Elective<sup>4</sup> ..... 2 **Fourth Ouarter** ACCT& 201 Prin of Accounting I.....5 ECON& 202 **Fifth Quarter** ACCT 121 Business Tax Accounting ..... 1 ACCT 122 BUS& 201 **Sixth Quarter** BUS 280 Human Relations in Business ...... 5

# 90 credits are required for the AAS.

### **COMPUTER SOFTWARE ELECTIVE**

CAPPS	102	Introduction to Office 1	
CAPPS	110	Word	
CAPPS	112	Excel 1	
CAPPS	114	Access	
CAPPS	116	PowerPoint 1	
BT 100 may be substituted with BT 101.			

General Elective<sup>4</sup> ..... 3

- <sup>2</sup> ENGL& 101 may be substituted for BT 107 and 108 depending on the student's educational objectives.
- All general business students must take a minimum of 19 credits of business electives.
- <sup>4</sup> General electives must come from any discipline OTHER than business.

# **CAD COMPUTER AIDED DESIGN AND** DRAFTING

# **AAS, Certificate: SCC**

The CAD Computer Aided Design and Drafting AAS degree program prepares students with the skills necessary for drafting and design using both CAD drafting and solid modeling techniques. The course of study prepares students to work in a wide range of engineering disciplines, including engineering teams for large and small manufacturing firms, consultant engineering firms, testing, and research companies to gain employment as computer aided drafters and engineering designers.

Students not only learn to draft using CAD and solid modeling techniques, but also get"hands-on"practical experience in rapid prototyping, engineering design projects, and by learning fabrication processes used in industry. Coursework includes a balance of basic skills in math and communications, as well as practical application of relevant computer assisted drafting skills in several engineering disciplines, including: mechanical, civil and structural engineering; architectural drafting; electrical and fluid power schematics; and fabrication/piping drafting.

# AAS

# **First Quarter**

		Total	18
MET	101	Introduction to Engineering <sup>3</sup>	. 2
CAD	114	Engineering Graphics 1	. 4
CAD	105	Basic Blueprint Reading	. 3
APLED	121	Applied Written Communication <sup>2</sup>	. 4
APLED	112	Applied Mathematics <sup>1</sup>	. 5

Second	l Qua	rter
APLED	123	Leadership Skills for Business and Industry <sup>2</sup>
CAD	124	Engineering Graphics 2
CAD	129	Computer Aided Drafting
MET	123	Applied Technical Mathematics <sup>4</sup>
		Total
Third O	Juart	er
CAD	131	Dimensioning and Tolerancing 3
CAD	132	Engineering Graphics 3
CAD	132	Schematice 3
MFT	127	Manufacturing Processes 3
MET	133	Introductory Applied Physics 3
101111	100	Total
Fourth	01121	tor
	241	CAD Solid Modeling 5
CAD	241	Mechanical CAD Applications
CAD	240	Civil CAD Applications
MET	207	Mechanical Design Fundamentals 4
101111	212	Total 17
cifth O	uarto	
	105	Encelorment Droponotion?
CAD	120	Advanced CAD
CAD	252	Architectural CAD Applications
MET	259	Technical Applications I6
IVIE I	255	
c:		IUtal
	uarto	
CAD	260	Fabrication and Piping CAD Applications <sup>7</sup>
CAD	261	Project Design
CAD	268	Structural CAD Applications
MEI	264	
		lotal
102 cre	dits a	are required for the AAS.
CERTIF	ICATE	E Contra de
First Q	uarte	r
APLED	112	Applied Mathematics <sup>1</sup> ,
APLED	121	Applied Written Communication <sup>2</sup>
CAD	105	Basic Blueprint Reading
CAD	114	Engineering Graphics 1
MET	101	Introduction to Engineering <sup>3</sup> 2
		Total
Second	l Qua	rter
APLED	123	Leadership Skills for Business and Industry <sup>2</sup>
CAD	124	Engineering Graphics 2
CAD	129	Computer Aided Drafting
MET	123	Applied Technical Mathematics <sup>4</sup>
		Total
Third Q	Juart	er
CAD	131	Dimensioning and Tolerancing
CAD	132	Engineering Graphics 35
CAD	135	Schematics
CAD	259	Architectural CAD Applications <sup>8</sup>
		Total
Fourth	Quar	rter
APLED	125	Employment Preparation <sup>2</sup>
CAD	241	CAD Solid Modeling 5
CAD	248	Mechanical CAD Applications <sup>8</sup> 4
		Approved Electives <sup>6</sup>
		Total
67 cred	its ar	e required for the Certificate.
APPRO	VED F	LECTIVES
ARCHT	122	Basic Residential Drafting 5-7
CET	122	Surveying Theory
ELMT	243	Introduction to Programmable Controllers 4
	2 -	$\tau$
MET	127	Manufacturing Processes
MET MET	127 247	Manufacturing Processes
MET MET MET	127 247 250	Manufacturing Processes       3         Shop Practices       3         Strength of Materials/Materials Science       5

1	This related education requirement may be met by any course or combination
	of courses approved by the department dean. This course may be substituted
	as approved by the CAD instructor or department dean with: CET 111 or
	MET 115.

- <sup>2</sup> This related education requirement may be met by any course or combination of courses approved by the department dean.
- <sup>3</sup> MET 101 may be substituted with CIS 105, 106 or 110.
- <sup>4</sup> This course may be substituted as approved by the CAD instructor or department dean with: CET 121 or MATH 100.
- <sup>5</sup> This course may be substituted with co-op credits MET 266 and 267 or MET 288. This course may be substituted as approved by the CAD instructor or department dean with CAD 258, 260, 268 or 269 (formerly MET 258, 260,268 or 269).
- <sup>6</sup> This course may be substituted with an approved elective or with co-op credits MET 266 and 267 or MET 288.
- <sup>7</sup> This course may be substituted with co-op credits MET 266 and 267 or MET 288.
- <sup>8</sup> This course may be substituted as approved by the CAD instructor or department dean with: CAD 258, 260, 268 or 269 (formerly MET 258,260,268 or 269).

# CARPENTRY AND CABINETRY

# AAS, Certificate: SCC

Carpentry is a rewarding career ideally suited to the person who has an interest in and aptitude for working with tools and materials. The trade requires the development of manual skills: skills that involve both thinking and doing. Carpentry also requires a thorough knowledge of materials and methods used in construction work.

The carpenter belongs to the largest group of building trade workers. Job opportunities encompass everything from new residential or commercial construction to remodeling and alteration, maintenance, and building repair work.

First Aid/CPR is a condition of graduation and must be obtained by the third quarter.

# AAS

# **First Quarter**

CARP	113	Carpentry Math 5
CARP	114	Transit Layout and Design 4
CARP	115	Basic Construction Systems7
MET	103	Introduction to Computers for Technology 3
		Total
Second	Qua	rter
APLED	121	Applied Written Communication <sup>1</sup> 4
CARP	123	Cabinetry Math 3
CARP	124	Cabinet Layout and Design
CARP	125	Cabinet Construction
CARP	126	Cabinet Finishing
-11.1.0		lotal
Third Q	uart	
CARP	133	Introduction to Estimating
CARP	134	Introduction to Trim and Exterior Finish
CARP	135	Practical Construction Applications
CARP	136	Total
E a contila	0	10tal
Fourth	Quar	
APLED	123	Leadership Skills for Business and Industry <sup>1</sup>
CARP	243	Plan Reading and Material Estimation
CARP	244	Total
		10tal
	uarte	
AKCHI	125	Residential Building Codes
CARP	251	Exterior Estimating 7
CARP	253	Exterior Application Methods
CAR	204	Total 20
Sivth A	uarte	10mii
		Interior Fetimating 7
1 1 1 1 1 1	16 1	
CARP	263 264	Interior Application Methods

# PROGRAM OUTLINES

### 110 credits are required for the AAS.

### CERTIFICATE

# **CARPENTRY AND CABINETRY**

### First Quarter

		Total	D
CARP	115	Basic Construction Systems	7
CARP	114	Transit Layout and Design	4
CARP	113	Carpentry Math	5
APLED	121	Applied Written Communication <sup>1</sup>	4

# **Second Quarter**

APLED	123	Leadership Skills for Business and Industry <sup>2</sup> 3
CARP	123	Cabinetry Math
CARP	124	Cabinet Layout and Design
CARP	125	Cabinet Construction
CARP	126	Cabinet Finishing
		Total
Third Q	uarte	er
Third Q CARP	<b>uart</b> 133	Introduction to Estimating
Third Q CARP CARP	<b>uart</b> 133 134	Introduction to Estimating
Third Q CARP CARP CARP CARP	133 134 135	Introduction to Estimating
Third Q CARP CARP CARP CARP	133 134 135 136	Introduction to Estimating

### 55 credits are required for the Certificate.

### ADVANCED CABINETRY

This Cabinetry program is designed for students who wish to obtain advanced skills in cabinetry. The coursework provides both basic and advanced projects that require additional skills and techniques not offered in the basic program. Permission of the instructor is required for admission to the program.

# **First Quarter**

CARP	123	Cabinetry Math
CARP	124	Cabinet Layout and Design
CARP	125	Cabinet Construction
CARP	126	Cabinet Finishing
		Total
Second	Qua	rter
Second CARP	<b>Qua</b> 223	rter Advanced Cabinetry Math
<b>Second</b> CARP CARP	<b>Qua</b> 223 224	rter Advanced Cabinetry Math
<b>Second</b> CARP CARP CARP	<b>Qua</b> 223 224 225	rter Advanced Cabinetry Math

# 32 credits are required for the Certificate.

<sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

<sup>2</sup> Required only for those students completing the certificate program.

Total.....

# **CERTIFIED PROFESSIONAL SECRETARY**

# Credit by Nontraditional Means: SCC, SFCC

Administrative assistants today are rewarded for their efforts to develop a broad knowledge of their own field and the business world by being awarded the title Certified Professional Secretary (CPS). This title is earned by those who meet the qualifications established by the Institute for Certification, an organization sponsored by International Association of Administrative Professionals.

Students who complete a two-year post secondary Administrative Assistant program in an accredited college such as SCC or SFCC may take the examination before they fulfill work experience requirements which are outlined as follows:

- Students who complete a two-year program in an accredited school and pass the CPS examination must complete three years of verified office experience.
- Students who complete a bachelor's or advanced degree program and pass the CPS examination must complete two years of verified administrative assistant experience.

Successful completion of the work experience requirements and the examination will permit candidates to receive the CPS certification.

Students who have successfully completed 15 to 30 quarter hours of credit at a college within Community Colleges of Spokane may be granted further credit of up to 60 quarter hours upon completing the requirements of the CPS examination.

Upon completion of the 15-credit-hour residency requirement, 30 credits may be granted. Upon completion of the 30-credit-hour residency requirement, 60 credits may apply toward the requirements for an associate in applied science or associate of arts degree at either SCC or SFCC. The designation as a Certified Professional Secretary may permit specific credit to be given, up to 60 credits for the following courses.

# **CREDIT BY NONTRADITIONAL MEANS**

# **UP TO 60 CREDITS MAY BE AWARDED**

ACCT&	201	Prin of Accounting I
ACCT&	202	Prin of Accounting II
BT	101	Keyboarding
BT	102	Document Processing 5
BT	103	Formatting
BT	107	Business Communications 3
BT	108	Business Communications 3
BT	109	Business Communications 5
BT	165	Word Processing
BT	201	Information Processing
BT	231	Office Procedures
BT	233	Directed Office Practice
BT	240	Administrative Office Procedures
BT	255	Business Productivity Tools
BT	260	Administrative Office Management
BT	272	Business Correspondence
BUS&	101	Intro to Business
BUS	103	Basic Business Math and Electronic Calculators 5
BUS	104	Business Mathematics
BUS&	201	Business Law
BUS	280	Human Relations in Business 5
CAPPS	110	Word
CIS	101	Technical Introduction to Computer Information
		Systems
CIS	110	Introduction to Computer Applications
CIS	255	BASIC Language for Business
ECON&	201	Micro Economics
ECON&	202	Macro Economics
MMGT	231	Human Resource Management

- <sup>1</sup> The designation as a certified professional secretary may permit specific credit to be given, up to 60 credits for the following courses. The request for granting of these credits by nontraditional means should be directed to the vice president of student services at SCC.
- <sup>2</sup> Credit may be awarded for BT 107 and 108 (6 credits), or BT 109 (5 credits).
- <sup>3</sup> Credit may be awarded for CIS 101 or CIS 110. CIS courses offered at SCC only.
- <sup>4</sup> CIS courses offered at SCC only.

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# CHEMICAL DEPENDENCY PROFESSIONAL STUDIES

# AAS, Certificate: SFCC

SFCC's Chemical Dependency Professional Studies program provides two options for obtaining the educational requirements to become a Chemical Dependency Professional (CDP). Washington State requires an associate's degree in human services or related field; **or** successful completion of 90 quarter college credits. At least 45 quarter credits must be in courses relating to the chemical dependency profession and shall include specific competencies defined by the State. SFCC offers the approved educational programs:

1. AAS Degree: A two-year educational training program for people who do not have at least 45 prior college credits.

2. Certificate Program: A one-year program for students who already have a minimum of 45 college-level credits, and need specific chemical dependency courses.

First Qu	ıarte	r
HS HS HSSUB IS	102 136 131 120	Introduction to Human Services.       5         Improving Interpersonal Communication.       5         Survey of Chemical Dependency       3         Business Computer Use       3         Total       16
Second	0ua	rtar
ENGL& HSSUB HSSUB HSSUB	101 172 179 277	English Composition I
Third Q	uart	er
HSSUB HSSUB HSSUB PSYC&	141 142 176 100	Law and Chemical Dependency Professionals2Ethics in Chemical Dependency2Chemical Dependency Counseling Techniques5General Psychology5Total14
Fourth	Quar	ter
BUS HS HSSUB HSSUB	102 281 182 279	Math Skills for Business       3         Practicum I <sup>1</sup> 5         Cultural Diversity in Addiction Counseling.       2         Case Management of Chemically Dependent Client.       3         Total       13
Fifth O	uarte	
HS HS HSSUB	221 282 290	Treatment Theories in Human Services    5      Practicum II <sup>1</sup> 5      Current Issues in Chemical Dependency    5      Total    15
Sixth Q	uarte	er
HS HSSUB HSSUB PSYC&	283 275 280 200	Practicum III <sup>1</sup> 5         Physiological Actions of Alcohol and Drugs       5         Advanced Case Management       3         Lifespan Psychology       5         Total       18
91 cred	its ar	e required for the AAS.

# CERTIFICATE

Prerequisites

BUS 102 Math Skills for Business ENGL& 101 English Composition I

HSSUB 131 Survey of Chemical Dependency

The one year certificate program offers a certificate from our college, which is not a substitute for state certification. The one year curriculum assumes that students have completed other college work. The state of Washington has a minimum requirement of 90 credit hours of education of which this certificate is only a part. You will need to demonstrate to the Department of Health that, in addition to the certificate courses listed here, you have a MINIMUM total of 90 approved credit hours, half of which are the certificate courses.

HS	221	Treatment Theories in Human Services <sup>2</sup>
HS	281	Practicum I <sup>1</sup>
HS	282	Practicum II <sup>1</sup>
HSSUB	141	Law and Chemical Dependency Professionals 2
HSSUB	142	Ethics in Chemical Dependency
HSSUB	172	Chemical Dependency in the Family
HSSUB	176	Chemical Dependency Counseling Techniques 5
HSSUB	179	HIV/AIDS and Chemical Dependency 2
HSSUB	182	Cultural Diversity in Addiction Counseling 2
HSSUB	275	Physiological Actions of Alcohol and Drugs
HSSUB	277	Group Process in Chemical Dependency Treatment 5
HSSUB	279	Case Management of Chemically Dependent Client 3
HSSUB	280	Advanced Case Management
HSSUB	290	Current Issues in Chemical Dependency 5
PSYC&	100	General Psychology
PSYC&	200	Lifespan Psychology
		Total

- <sup>1</sup> Practicum hours must be performed at an approved chemical dependency field site.
- <sup>2</sup> HS 221 may be substituted with HSSOC 221.

# CHEMISTRY PRE-MAJOR

# AA-DTA, AS-T #1: SCC, SFCC

Chemistry is the "central science" of a wide range of studies, exploring the structures and transformations of matter down to the molecular level. Since chemistry is foundational to all technology advances, Chemistry majors find employment in a variety of professions. Majoring in Chemistry also provides excellent background for graduate studies in pharmacy, environmental sciences, chemical engineering, biotechnology, nutrition, medicine, and dentistry, among others.

Recent employment surveys show that about two-thirds of chemists work in various industrial fields. These include, but are not limited to, development of pharmaceutical drugs, computer technology, petroleum processing, environmental toxicology, and forensic sciences. About one-fourth of the chemists teach and/or do research in academic institutions. Chemists also work in less technical fields, serving as managers, attorneys, journalists, etc., either in government agencies or the private sector.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggest	ed Courses	to Cons	sider <sup>1</sup>		 		90	)
Total				• • • •	 	• •	90	)

90 credits are required for the AA-DTA.

# AS-T #1

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggeste	d Coui	ses to	Consi	ider1	 	 	 90
Total					 	 	 90

### 90 credits are required for the AS-T #1.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# CHIROPRACTIC ASSISTANT

# **Certificate: SCC**

The Chiropractic Assistant Certificate program prepares students for positions in the chiropractic office field as receptionists and chiropractic billing clerks with the ability to communicate with and answer questions from chiropractic patients about their care and the chiropractic philosophy.

Admission Requirements:

- Keyboarding skills: 40 wpm with six or fewer errors completed at the SCC testing center or enrollment in BT 101 or 102
- Current first aid/CPR card or successful completion of ISFTY 111 or equivalent
- Students with ASSET scores below 30 or COMPASS test scores below 43 must successfully complete BT 151 during the first quarter

A minimum passing grade of 2.0 in each course is required for the certificate.

# CERTIFICATE

# **First Quarter**

MSEC

BT	105	Basic Grammar for Business II	. 5
MSEC	101	Medical Terminology and Anatomy	. 5
MSEC	108	Medical Office Computing	. 5
		Total	15
Second	d Qua	rter	
ACCT	151	College Accounting I	. 5
ΒT	231	Office Procedures	. 5

102 Medical Terminology and Anatomy ..... 5

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AAS

# PROGRAM OUTLINES

MSEC	123	Medical Office Coding 5
		Total
Third Q	uart	er
BUS	103	Basic Business Math and Electronic Calculators <sup>1</sup> 5
MSEC	121	Medical Office Reception
MSEC	124	Medical Office Insurance Billing5
MSEC	125	Medical Office Bookkeeping
		Total
Fourth	Quar	ter
BT	160	Job Preparation Techniques
MSEC	120	Human Relations/Communications for Medical Office
		Personnel
MSEC	284	Medical Internship Seminar 1
MSEC	289	Chiropractic Internship 3
		Total

### 67 credits are required for the Certificate.

<sup>1</sup> BUS 103 may be substituted with BT 128.

# CHIROPRACTIC PRE-MAJOR

# AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

Chiropractic is a system of treatment based on the principle that a person's health is determined largely by the nervous system, and that interference with this system impairs normal functions and lowers resistance to disease. Chiropractors treat their patients primarily by manual manipulation of parts of the body, especially the spinal column.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested	Courses	s to Co	nsider <sup>1</sup>	 	 . 90
Total				 	 . 90

90 credits are required for the AA-DTA.

# ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested	Cou	rses	to	Co	nsid	er1.	 	 		•	 90
Total							 	 	-		 90

## 90 credits are required for the Associate in Biology DTA/MRP.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# CIVIL ENGINEERING TECHNOLOGY

# AAS: SCC

The Civil Engineering Technology program is designed to provide a comprehensive, well balanced study in applied and related science concerning the engineering and construction industry. This course prepares students in the basic fundamentals of construction techniques, materials testing, surveying, estimating and quantity take-off, plan reading, drafting (manual and computer aided), office and business procedures, planning of construction work, and computer-aided design.

# AAS

# **First Quarter**

CET CET CET CIS	111 112 113 105	Technical Math       8         Plan Reading       4         Drafting       4         Computer Fundamentals for Vocations I <sup>1</sup> 3
Second	Ouar	10tal
CET	121	Applied Technical Math
CET	122	Surveying Theory
CET	123	Introduction to Civil Computer Aided Design 6
GEOL	116	Environmental Geology

### **Third Quarter**

CET	133	Field Surveying
CET	136	Statics
CET	161	Land Surveying
		Total
Fourth	Quar	ter
CET	242	Advanced Surveying
CET	243	Advanced Civil Computer Aided Design
CET	253	Strength of Materials
ENGL&	101	English Composition I <sup>1</sup> 5
		Total
Fifth Qu	arte	r
APLED	125	Employment Preparation <sup>1</sup>
CET	252	Hydraulics I

Construction Materials I ..... 6

# 

254

257

CET

CET

σιχτη γ	luarte	
CET	230	Construction Process I
CET	232	Construction Process II <sup>2</sup> 2
CET	256	Hydraulics II
CET	258	Construction Materials II <sup>2</sup>
CET	261	Concrete
CET	264	Design Project <sup>2</sup> 3
		Total

### 120 credits are required for the AAS.

<sup>1</sup> May be substituted with any course or combination of courses approved by the instructional dean.

<sup>2</sup> May be substituted with CET 266 and CET 267 or CET 265, CET 288 or CET 291 with permission of the instructor.

# **COMMUNICATION STUDIES PRE-MAJOR**

# **AA-DTA: SCC, SFCC**

Speaking and listening are the most used means of communication. Career opportunities for students trained in communication studies are found in the areas of public relations, personnel, human resource management, drama, education, intercultural communication, diversity training, and speech correction. A broad training in communication studies also provides an excellent background for human services, legal, political, and business careers.

The communication studies courses meet the needs of students desiring to improve interpersonal, group, and public speaking skills to fulfill graduation requirements, or to complete the first two years of a transfer program to a four-year institution with a major or minor in communication studies, drama or radio-television.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Sug	gested	Cou	rses	to	Co	nsic	ler <sup>1</sup> .	 	 			 	. 9	90
Tota	al			• •	• •			 • •	 	• •	-	 	. 9	0

### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

# COMPUTER AND NETWORK SUPPORT

# **Certificate: SFCC**

This certificate concentrates on the practical operation, maintenance and use of computers, computer networks and their peripherals. This intensive hands-on program prepares the certificate holder to maintain the hardware and software of small to medium computer and network systems. Computers are networked in LANs and on the Internet in homes, industries and offices. This program teaches students to maintain

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PROGRAM OUTLINES

and keep these systems running. Students also learn to assist and train computer users in the use of modern software and hardware.

This certificate is intended to prepare students for entry-level positions in computer/network support departments or as the computer/network specialist in a small to medium size office. Students are expected to have other skiills needed to integrate this certificate with the skills necessary for the nature of employment they have or seek.

# CERTIFICATE

### Prerequisites

IS	103	Information Technology Fundamentals	
IS	144	Programming Fundamentals	
IS	160	Internet Fundamentals	
First (	Quarte	r	
IS	132	Computer Ethics & Law	5
IS	162	Data Communications and Networks	3
IS	260	Database Theory	5
		Total	. 13
Secon	nd Qua	rter	
IS	140	Computer and Network Support	5
IS	244	Network Security I.	5
IS	262	Network Management	5
		Total	. 15
Third	Quart	er	
BUS	280	Human Relations in Business <sup>1</sup>	5
CS	121	UNIX/Linux	3
IS	210	Internet Programming I	3
IS	228	Internet Servers	5
		Total.	. 16

# 44 credits are required for the Certificate.

<sup>1</sup> BUS 280 may be substituted with HS 136.

# **COMPUTER FORENSICS/NETWORK SECURITY**

# **Certificate: SFCC**

The Computer Forensics/Network Security program is designed to provide students with capabilities in several areas of computing:

- Digital evidence recovery
- Forensic laboratory analysis
- Legal and technical issues regarding seizure and acquiring computer evidence, and chain of custody
- Computer network protocols and security, intrusion detection, and network forensics

This certificate is intended to provide students with the essential skills, knowledge and experience necessary to deal with computer forensics and computer/network security.

NOTE: This certificate is not for beginners; please contact the department for more information.

### CERTIFICATE

# **First Quarter**

IS	132	Computer Ethics & Law 5				
IS	162	Data Communications and Networks				
IS	210	Internet Programming I				
IS	260	Database Theory				
		Total				
Second	Qua	rter				
IS	234	Computer Forensics I				
IS	244	Network Security I				
IS	262	Network Management 5				
		Total				
Third Q	uart	er				
CS	121	UNIX/Linux				
IS	236	Computer Forensics II				
IS	245	Network Security II				
		Total				
44 cred	44 credits are required for the Certificate.					

# **COMPUTER SCIENCE PRE-MAJOR**

# AS-T #2: SFCC

The Associate in Computer Science (AS-T #2) degree is an articulated transfer agreement for computer science majors between community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Computer Science AS-T #2 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Falls Community College on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90 credits in academic courses numbered 100 or above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-5 credits, humanities/social sciences—15 credits, mathematics—25 credits, science-20 credits, and 25 credits in computer science courses. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College with at least 15 credits earned in residence at the college awarding the degree or certificate. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

### AS-T #2

# See transfer degree requirements in the Transfer Program Outlines section of this catalog.

# **First Quarter**

CHEM& CS& MATH&	161 141 151	General Chem: w/Lab I Computer Science I Java <sup>1</sup> Calculus I	5 5 5
Second	Oua	rter	
CS MATH&	142 152	Introduction to Computer Science II <sup>1</sup> Calculus II Humanities/Social Sciences Elective <b>Total</b> .	5 5 5
Third Q	uarte	er	
ENGL& MATH&	101 153	English Composition I Calculus III <sup>2</sup> Humanities/Social Sciences Elective	5 5 5
		Total	15
Fourth	Quar	ter	
CS MATH PHYS	211 220 201	C for Programmers <sup>1</sup> Elementary Linear Algebra <sup>1</sup> Engineering Physics I <sup>1</sup> <b>Total</b> .	5 5 5 15
Fifth Qu	ıarte	r	
CS PHYS	253 202	Object-Oriented Programming with C++1         Engineering Physics II1         Humanities/Social Sciences Elective         Total	5 5 5 15
Sixth Q	uarte	er	
CS MATH PHYS	280 245 203	Data Structures <sup>1</sup> Discrete Mathematics <sup>2</sup> Engineering Physics III <sup>1</sup> Total	5 5 5 15

# 90 credits are required for the AS-T #2.

<sup>1</sup> This course offered at SFCC only.

<sup>2</sup> Math 221 may be taken instead of Math& 153 or MATH 245. Consult a counselor or adviser for recommended course.

# COMPUTING-SOFTWARE **APPLICATIONS**

# **Certificate: SFCC**

The Computing–Software Applications Certificate program is designed to meet the growing need for computer skills in daily business operations. Students and members of the business community need computer training for current and future employment. Students will develop speed and accuracy on the keyboard, develop skills in troubleshooting routine computer problems, and develop a solid foundation with current application software. A capstone course will integrate software knowledge into a simulated business project.

The primary goal of the certificate program is to teach students to use the computer for daily business operations. Special attention is given to "hands-on" experience using popular software applications.

This certificate will increase value in the workplace.

# CERTIFICATE

# **First Quarter**

BT	101	Keyboarding	5
CAPPS	104	Beginning Windows Operating System	1
CAPPS	110	Word	3
IS	120	Business Computer Use	3
IS	160	Internet Fundamentals	1
		Total	3

# **Second Quarter**

CAPPS	112	Excel			
CAPPS	114	Access			
CAPPS	116	PowerPoint			
CAPPS	120	Outlook			
IS	142	Hardware Fundamentals			
IS	143	Operating System Fundamentals			
		Total			
Third Q	uarte	er			
BT	160	Job Preparation Techniques			
BT	201	Information Processing 5			
BT	270	Office Computer Support <sup>1</sup> 3			
IS	210	Internet Programming I1			
		Total			
41 credits are required for the Certificate.					

<sup>1</sup> BT 270 may be substituted with IS 144.

# CORRECTIONS

### AAS: SCC

The Corrections and Security curriculum is made up of courses designed to prepare students for a career in the corrections arena with an emphasis on developing skills and knowledge that pertain to working in correctional facilities.

The Corrections program is an outgrowth of recognition of the increasing need for trained personnel in the field. This area of criminal justice is experiencing a great deal of change and expansion. New trends in inmate management and new standards for offender care have contributed to an increased need for employment of more people who possess skills and knowledge applicable to a variety of job requirements.

Students in this field are encouraged to seek academic counseling. Only a portion of this two-year curriculum is transferable to four-year institutions. Students interested in a four-year degree should inquire at the college to which they plan to attend or transfer for specific information.

This is a recommended course of study. Students may take required courses any time they are offered. (Not all classes are offered every quarter.)

Program Requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program. Any student with an arrest record must have the department chair approval to take any Criminal Justice classes and/or to enter the Criminal Justice program.

AAS		
CJ	102	Administration of Justice
CJ&	105	Intro to Corrections
CJ	106	Introduction to Juvenile Control
CJ	107	Dynamics of Deviant Behavior 5
CJ	132	Criminal Justice Physical Training <sup>1</sup> 1
CJ	150	Criminal Justice Report Writing 5
CJ	205	Introduction to Criminal Law5
CJ	209	Human Relations 3
CJ	212	Professional Development 1
CJ	215	Corrections-Security-Practice and Procedure 5
CJ	216	Communication Techniques with the Incarcerated
		Offender 5
CJ	225	Advanced Techniques in Correctional Programming 5
CJ	227	Minority Studies
CJ	228	Ethics - Standards of Conduct 3
CJ	230	Institutional Programming 3
CJ	237	Criminal Justice Self-defense <sup>2</sup>
CMST&	101	Introduction to Communication <sup>3</sup>
CMST&	210	Interpersonal Communication <sup>3</sup> 5
ENGL&	101	English Composition I <sup>3</sup>
ENGL&	235	Technical Writing <sup>3</sup> 5
SFTY	111	Industrial First Aid
		Math Electives <sup>4</sup> 5
		Recommended Electives List A
		Recommended Electives List B <sup>2</sup> 3
		Recommended PE Electives 2
		Total

### 109 credits are required for the AAS.

# **RECOMMENDED ELECTIVES LIST A**

ASL&	121	Am Sign Language I 5
BIOL&	160	General Biology w/Lab
BUS&	201	Business Law
BUS	217	Business Statistics
CHEM	101	General Chemistry
CIS	110	Introduction to Computer Applications5
HLTH	101	Health and Wellness 3
HLTH	104	Stress Management 3
HUM&	101	Intro to Humanities
HUM	102	Introduction to Women's Studies
PHIL&	101	Intro to Philosophy
PHIL	210	Ethics
PSYC&	100	General Psychology5
PSYC	210	Conception through Adolescent Developmental
		Psychology 5
PSYC	250	Psychology of Adjustment
RUSS&	121	Russian I
SOC&	101	Intro to Sociology
SOC	221	Race and Ethnic Relations5
SOC	261	Crime and Justice
SPAN&	121	Spanish I
RECOM	MENC	DED ELECTIVES LIST B
CJ	265	Service Learning Volunteer Project
CJ	266	Cooperative Education Seminar
CJ	267	Cooperative Education Work Experience 1-2

# (No Seminar) ..... 1-3

# **RECOMMENDED PE ELECTIVES**

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CJ

CJ	133	Criminal Justice Physical Training.	1
CJ	241	Criminal Justice Physical Training.	1
CJ	242	Criminal Justice Physical Training	1
CJ	243	Criminal Justice Physical Training.	1
PE	186	Fast Fitness, Beginning	1

Cooperative Education Work Experience

<sup>1</sup> Student's must have medical insurance and a doctor's release if needed; requires fitness assessment. If assessed below minimum fitness level, CJ 208 is a recommended prerequisite. PE 186 (for audit) is required to be taken concurrently with CJ 132, 133, 208, 241, 242 and 243.

- <sup>2</sup> Students must pass one quarter of CJPT to enroll in this course.
  - <sup>3</sup> This course may be substituted with any course or combination of courses approved by the instructional dean.
  - <sup>4</sup> This math course may be substituted with APLED 112, BUS 103 or any math course numbered 100 or above.
  - <sup>5</sup> CJ 266 and CJ 267 or CJ 288 or any criminal justice course must be taken concurrently. Students must pass one quarter of CJPT to enroll in this course.

# **CORRECTIONS (AAS-T)**

# AAS-T: SCC

The Corrections and Security curriculum is made up of courses designed to prepare students for a career in the corrections arena with an emphasis on developing skills and knowledge that pertain to working in correctional facilities.

The Corrections program is an outgrowth of recognition of the increasing need for trained personnel in the field. This area of criminal justice is experiencing a great deal of change and expansion. New trends in inmate management and new standards for offender care have contributed to an increased need for employment of more people who possess skills and knowledge applicable to a variety of job requirements.

This AAS-T degree is transferable to some four-year institutions. Students interested in transfer should contact the SCC Criminal Justice program instructors or the department chair for a list of four-year institutions that have agreed to accept this degree.

A prior criminal, traffic or drug history may exclude individuals from employment. For further information, contact a program instructor.

This is a recommended course of study. Students may take required courses any time they are offered. (Not all classes are offered every quarter.)

Program requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program. Any student with an arrest record must have department chair approval to take any Criminal Justice classes and/or to enter the Criminal Justice program.

### AAS-T

CJ	102	Administration of Justice
CJ&	105	Intro to Corrections
CJ	106	Introduction to Juvenile Control
CJ	107	Dynamics of Deviant Behavior
CJ	132	Criminal Justice Physical Training <sup>1</sup> 1
CJ	150	Criminal Justice Report Writing 5
CJ	205	Introduction to Criminal Law
CJ	209	Human Relations
CJ	212	Professional Development 1
CJ	215	Corrections-Security-Practice and Procedure 5
CJ	216	Communication Techniques with the Incarcerated
		Offender
CJ	225	Advanced Techniques in Correctional Programming 5
CJ	227	Minority Studies
CJ	228	Ethics - Standards of Conduct 3
CJ	230	Institutional Programming 3
CJ	237	Criminal Justice Self-defense <sup>2</sup>
CMST&	101	Introduction to Communication <sup>3</sup> 5
CMST&	210	Interpersonal Communication <sup>3</sup> 5
ENGL&	101	English Composition I <sup>3</sup> 5
ENGL&	235	Technical Writing <sup>3</sup> 5
ISFTY	111	Industrial First Aid
MATH&	107	Math in Society <sup>3</sup> 5
		Recommended Electives List A 15
		Recommended Electives List B
		Recommended PE Electives 2
		Total

### 109 credits are required for the AAS-T.

# **RECOMMENDED ELECTIVES LIST A**

ASL&	121	Am Sign Language I	5
BIOL&	160	General Biology w/Lab	5
BUS&	201	Business Law	5

BUS	217	Business Statistics
CHEM&	: 110	Chemical Concepts w/Lab
CIS	110	Introduction to Computer Applications
HLTH	101	Health and Wellness
HLTH	104	Stress Management
HUM&	101	Intro to Humanities
HUM	102	Introduction to Women's Studies
PHIL&	101	Intro to Philosophy
PHIL	210	Ethics
PSYC&	100	General Psychology
PSYC	210	Conception through Adolescent Developmental
		Psychology
PSYC	250	Psychology of Adjustment
RUSS&	121	Russian I 5
SOC&	101	Intro to Sociology
SOC	221	Race and Ethnic Relations
SOC	261	Crime and Justice
SPAN&	121	Spanish I 5
RECOM	MEND	DED ELECTIVES LIST B
CJ	265	Service Learning Volunteer Project
ĊĪ	266	Cooperative Education Seminar 1

CJ	265	Service Learning Volunteer Project
CJ	266	Cooperative Education Seminar
CJ	267	Cooperative Education Work Experience 1-2
CJ	288	Cooperative Education Work Experience (No Seminar)1-3

# **RECOMMENDED PE ELECTIVES**

CJ	133	Criminal Justice Physical Training.	1
CJ	241	Criminal Justice Physical Training.	1
CJ	242	Criminal Justice Physical Training.	1
CJ	243	Criminal Justice Physical Training.	1
PE	186	Fast Fitness, Beginning	1

- <sup>1</sup> Students must have medical insurance and a doctor's release if needed; requires fitness assessment. If assessed below minimum fitness level, CJ 208 is a recommended prerequisite. PE 186 (for audit) is required to be taken concurrently with CJ 132, 133, 208, 241, 242 and 243. CJ 133, 241,242 or 243 are recommended and have the same requirement as CJ 132. PE 186 (for audit) is required to be taken concurrently.
- <sup>2</sup> Students must pass one quarter of CJPT to enroll in this course.
- <sup>3</sup> This course may be substituted with any course or combination of courses approved by the instructional dean.
- <sup>4</sup> CJ 266 and CJ 267 or CJ 288 must be taken concurrently or may be substituted with any criminal justice course.

# COSMETOLOGY

# AAS: SCC

Cosmetology is a diverse field that offers a variety of employment opportunities. SCC's Cosmetology program provides the education and training needed to successfully compete in today's job market. Upon successful completion of the 1,600 hour program, students are prepared to take the Washington State Board Exam. After passing this exam, they will receive a license for Cosmetology.

This program includes haircutting and styling, permanent waving, chemical relaxing, tinting and bleaching, and temporary superfluous hair removal; manicuring and pedicuring of natural nails; and basic skin care. In addition, safety and sanitation measures are stressed throughout the program. Students also must complete a first aid class. Students will be given review testing and simulated performance evaluations in preparation for the state licensing examination.

Students must complete the program and pass the exit exams in order to be prepared to take the Washington State examination for Cosmetology.

Additional requirements for the AAS degree consist of general education requirements in the areas of written communication, human relations/ leadership and computation. Students should check with the counseling department for assistance in planning their schedules.

# Program Requirements:

Students must maintain a 2.1 in all professional classes to complete the program and pass exit exams with a minimum score of 2.5 to be prepared to take the Washington state licensing exam for cosmetology.

PROGRAM OUTLINES

 Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination of Cosmetology.

Physical Requirements:

- Normal or corrected vision
- Physical dexterity, i.e., small grasp manipulation
- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to stand for extended periods of time

# AAS

# **First Quarter**

APLED APLED CIS COS	112 121 110 101	Applied Mathematics <sup>1</sup> 5         Applied Written Communication <sup>1</sup> 4         Introduction to Computer Applications <sup>2</sup> 5         Introduction to Cosmetology       2
		IOTAI
Second	Qua	
COS	111 112	Cosmetology, Esthetics and Manicuring Concepts I 5
005	112	Manicuring Applications I
Thind o		Iotal
Inira Q	uart	
COS	121 122	Cosmetology, Esthetics and Manicuring Concepts II 5 Cosmetology, Esthetics and Manicuring Applications II 11
		Total
Fourth	Ouar	ter
COS	131	Intermediate Cosmetology I 5
COS	132	Intermediate Cosmetology Applications I
Fifth O	uarte	r
COS	241	Intermediate Cosmetology II
COS	242	Intermediate Cosmetology Applications II 10
ISFTY	111	Industrial First Aid
		Total
Sixth Q	uarte	er
APLED	125	Employment Preparation <sup>3</sup>
COS	251	Advanced Cosmetology I 5
COS	252	Advanced Cosmetology Applications I <sup>4</sup> 10
		Total
Sevent	h Qua	arter
COS	261	Advanced Cosmetology II
COS MMCT	262	Advanced Cosmetology Applications II <sup>+</sup> 10
IVIIVIG I	205	Total
Eighth	0	for
Eighti	Quar	Approved Cosmotology Floctives 0.13
		Approved Credits for Additional Coursework <sup>7</sup> 0-5
		Total
120-138	s cred	lits are required for the AAS.
APPRO\	/ED C	OSMETOLOGY ELECTIVES
COS	288	Cooperative Education Work Experience ( No Seminar) 1-3
HUM	141 207	Introduction to Film
	207	
APPROV	/ED C	
COS	275	Cosmetology Application 1-5
<sup>1</sup> This rel of cour	lated e ses ap	ducation requirement may be met by any course or combination proved by the instructional dean or department chair.
<sup>2</sup> CIS 11	0 is of	tered online and/or can be taken as CIS 105 for five credits.
<sup>3</sup> APLEI met by dean o	D 125 ' any c r deva	is offered online. This related education requirement may be ourse or combination of courses approved by the instructional rtment chair. APLED 125 may be substituted with HUM 207
if seeki	ng adi	ditional eighth quarter dean issued certificate.
licensu	5∠ or ( ire rea	uirements allow up to 10% of student academic instruction to

be met by an on-site instructional experience at a beauty salon.

- <sup>5</sup> MMGT 205 may be substituted with HUM 141 if seeking additional eighth \_\_\_\_\_\_ quarter dean issued certificate. \_\_\_\_\_\_
- <sup>6</sup> Approved Electives: COS 288 and HUM 141, HUM 207 may be taken by currently enrolled AAS degree Cosmetology students desiring to receive additional training during the summer quarter (8th quarter) instructor permission required. Completion of these courses will entitle the student to a certificate of completion issued by the dean of instruction for technical education only and not a state issued certificate.
- <sup>7</sup> COS 275 is available for students who have not accumulated enough hours to satisfy the Cosmetology AAS degree requirements.
- <sup>8</sup> Co-Op enrollment is available with permission of the instructor.

# COSMETOLOGY CADET INSTRUCTOR PROGRAM

# **Certificate: SCC**

This program prepares licensed cosmetologists for the cosmetology instructors' examination issued by the Washington State Board of Cosmetology. Under the supervision of a licensed cosmetology instructor, cadet instructor students receive training in instructional methods and clinical practice assisting basic students in all phases of cosmetology.

All students must submit a resume, proof of current licensure and meet with the department chair for an interview, prior to acceptance into the program.

Physical Requirements:

- Normal or corrected vision
- Physical dexterity, i.e., small grasp manipulation
- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to stand for extended periods of time

# CERTIFICATE

		Total	31
COS	284	Special Projects <sup>2</sup>	. 1
COS	232	Management and Laboratory Supervision	16
CMST&	210	Interpersonal Communication <sup>3</sup>	. 5
CIS	110	Introduction to Computer Applications	. 5
APLED	123	Leadership Skills for Business and Industry <sup>1</sup>	. 4

# 31 credits are required for the Certificate.

- <sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.
- <sup>2</sup> Students should consult with the instructor before enrolling in COS 284.
- <sup>3</sup> This course may be substituted with any speech or cultural diversity course.

# **CREDIT AND FINANCIAL MANAGEMENT**

# **AAS, Certificate: SFCC**

The objectives of this program are to educate students for entry-level employment in the finance/credit field; and to provide continuing education opportunities for people currently working in the field, support courses for other business programs, and general financial and credit education to meet community needs.

The program is based on information from banks, mortgage companies, finance companies, credit unions and retail credit institutions in the Spokane area.

Keyboarding proficiency of 35 wpm is required for the certificate.

# AAS

# **First Quarter**

	T	fotal
MMGT 18	31 L	Leadership Training-DEC <sup>1</sup> 1
CRMGT 19	90 E	Business Credit Principles 3
BUS 10	)8 e	Business
BUS 10	00 N	Money Management 3
ACCT& 20	01 F	Prin of Accounting I
-		

# Second Quarter

BT	107	Business Communications <sup>2</sup>	3
BUS	103	Basic Business Math and Electronic Calculators <sup>3</sup>	5
CAPPS	112	Excel	1

CRMGT 140 CRMGT 150 MMGT 182	Financial Statement Analysis    3      Introduction to Investments    2      Leadership Training-DEC <sup>1</sup> 1      Total    15
<b>Third Quart</b>	er
BT         108           BUS & 201         201           CRMGT         110           CRMGT         220           MMGT         223	Business Communications <sup>2</sup> .    3      Business Law    5      Introduction to Finance    3      Credit Law/Collection Techniques    3      Customer Service    3
Fourth Our	10tal
BUS&         101           MMGT         101           MMGT         183           MMGT         267	Intro to Business.       5         Principles of Management       5         Leadership Training-DEC <sup>1</sup> 1         Cooperative Education Work Experience.       2         Computer Elective/Information Systems.       2         Total.       15
Fifth Quarte	r
BT 272 BUS 280 CMST& 101	Business Correspondence <sup>4</sup> 5         Human Relations in Business <sup>5</sup> 5         Introduction to Communication       5         Total       15
Sixth Quart	er
ECON 100 MMGT 211	Fundamentals of Economics65Marketing5Business Elective3Computer Elective/Information Systems1Total14
90 credits a	re required for the AAS.
CERTIFICATI	E Contraction of the second
First Quarte	-
ACCT& 201 BUS 100 BUS 108 CRMGT 190 MMGT 181	Prin of Accounting I.       5         Money Management       3         eBusiness       2         Business Credit Principles       3         Leadership Training-DEC <sup>1</sup> 1         Computer Elective/Information Systems       1
	Total
Second         Qua           BT         107           BUS         103           CRMGT         140           CRMGT         150           MMGT         223	rter         Business Communications <sup>2</sup>
	Total
	Business Communications?
BT         108           BUS&         201           CAPPS         112           CRMGT         110           CRMGT         220	Business Communications <sup>2</sup> .    3      Business Law    5      Excel    1      Introduction to Finance    3      Credit Law/Collection Techniques    3
46 credits a	re required for the Certificate
<sup>1</sup> MMGT 181, <sup>2</sup> BT 107 and <sup>3</sup> BUS 103 ma <sup>4</sup> BT 272 may	n required for the certificate. , 182, 183 may be substituted with BUS 105. 108 may be substituted with ENGL& 101. ny be substituted with BUS 217. be substituted with ENGL& 235.

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**PROGRAM OUTLINES** 

<sup>5</sup> BUS 280 may be substituted with HS 136.

<sup>6</sup> ECON 100 may be substituted with ECON& 202.

# **CRIMINAL JUSTICE**

# AAS: SCC

The Criminal Justice curriculum is made up of courses and a carefully selected group of general education requirements designed to prepare each student for a career in the field of criminal justice. These courses prepare students with theory and practical skills in the areas of patrol procedures, criminal procedures, marksmanship, physical training, investigations, interview, communications and human relations.

Students are carefully counseled in order to ensure they are able to enter a law enforcement agency of their choice. This counseling process includes physical, mental and emotional areas, as well as background requirements. Students are required to take various examinations common to the field of criminal justice. These examinations include quarterly physical training assessments. Passing these physical training assessments is a prerequisite to CJ 237.

Students in this field are encouraged to seek academic counseling. Only a portion of this two-year AAS degree is transferable to four-year institutions. Students interested in four-year degrees should inquire at the college to which they plan to transfer for specific information.

Credits from the police academy training can apply toward meeting the course requirements of this program.

A prior criminal, traffic or drug history may exclude individuals from employment. For further information, contact a program instructor.

This is a recommended course of study. Students may take required courses any time they are offered. (Not all classes are offered every quarter.)

Program Requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program. Any student with an arrest record must have the department chair approval to take any Criminal Justice classes and/or to enter the Criminal Justice program.

# AAS

AQUAT	101	Beginning Swimming	1
CJ&	101	Intro to Criminal Justice	5
CJ	102	Administration of Justice	5
CJ	103	Police Organization and Administration	3
CJ	104	Crime Scene Diagramming	5
CJ	108	Introduction to Traffic Investigation <sup>1</sup>	3
CJ	132	Criminal Justice Physical Training <sup>2</sup>	1
CJ	133	Criminal Justice Physical Training <sup>2</sup>	1
CJ	150	Criminal Justice Report Writing	5
CJ	200	Officer's Survival <sup>3</sup>	5
CJ	201	Laws of Arrest, Search and Seizure <sup>4</sup>	5
CJ	203	Police Interviewing Techniques	3
CJ	205	Introduction to Criminal Law <sup>4</sup>	5
CJ	209	Human Relations	3
CJ	210	Police Psychology	3
CJ	211	Crime Scene Investigations <sup>5</sup>	6
CJ	212	Professional Development	1
CJ	228	Ethics - Standards of Conduct	3
CJ	235	Firearms Safety <sup>6</sup>	2
CJ	236	Firearms Qualifications <sup>6</sup>	2
CJ	237	Criminal Justice Self-defense <sup>7</sup>	3
CJ	241	Criminal Justice Physical Training <sup>2</sup>	1
CJ	242	Criminal Justice Physical Training <sup>2</sup>	1
CJ	243	Criminal Justice Physical Training <sup>2</sup>	1
CMST&	101	Introduction to Communication <sup>8</sup>	5
CMST&	210	Interpersonal Communication <sup>8</sup>	5
ENGL&	101	English Composition I <sup>8</sup>	5
ENGL&	235	Technical Writing <sup>8</sup>	5
		Math <sup>9</sup>	5
		Recommended Electives List A 1	5
		Recommended Electives List B	3
		Total	6

116 credits are required for the AAS.

# RECOMMENDED ELECTIVES LIST A

ASL&	121	Am Sign Language I 5
BIOL&	160	General Biology w/Lab
BT	101	Keyboarding
BT	160	Job Preparation Techniques
BUS	102	Math Skills for Business 3
BUS	103	Basic Business Math and Electronic Calculators 5
BUS	280	Human Relations in Business
CHEM	101	General Chemistry
CIS	110	Introduction to Computer Applications5
-------	-----	--
HUM&	101	Intro to Humanities
HUM	102	Introduction to Women's Studies 5
PHIL&	101	Intro to Philosophy 5
PHIL	210	Ethics
PSYC&	100	General Psychology5
RUSS&	121	Russian I
SOC&	101	Intro to Sociology
SOC	221	Race and Ethnic Relations
SOC	261	Crime and Justice
SPAN&	121	Spanish I

#### **RECOMMENDED ELECTIVES LIST B**

CJ	265	Service Learning Volunteer Project	. 3
CJ	266	Cooperative Education Seminar	. 1
CJ	267	Cooperative Education Work Experience 1	-2
CI	288	Cooperative Education Work Experience (No Seminar)1	-3

- <sup>1</sup> CJ 101, 102 and 104 are prerequisites.
- <sup>2</sup> Requires medical insurance and a doctor's release if needed; requires fitness assessment. If assessed below minimum fitness level, CJ 208 is a recommended prerequisite. PE 186 (for audit) is required to be taken concurrently with CJ 132, 133, 208, 241, 242 and 243.
- <sup>3</sup> CJ 150, 201, 205 and 237 are prerequisites.
- <sup>4</sup> CI 101 and 102 are prerequisites.
- <sup>5</sup> CJ 104, 150, 201, 203 and 205 are prerequisites.
- <sup>6</sup> CJ 235 and 236 must be taken concurrently.
- <sup>7</sup> Passing one quarter of CJPT is required before taking this course.
- May be substituted with any course or combination of courses approved by the instructional dean.
- <sup>9</sup> This math course may be substituted with APLED 112, BUS 103 or any math course numbered 100 or above.
- <sup>10</sup> CJ 266 and CJ 267 or CJ 288 or any criminal justice course must be taken concurrently.

## **CRIMINAL JUSTICE (AAS-T)**

#### AAS-T: SCC

The Criminal Justice curriculum is made up of courses and a carefully selected group of general education requirements designed to prepare each student for a career in the field of criminal justice. These courses prepare students with theory and practical skills in the areas of patrol procedures, criminal procedures, marksmanship, physical training, investigations, interviewing, communication skills, and human relations.

Students are carefully counseled in order to ensure they are able to enter a law enforcement agency of their choice. This counseling process includes physical, mental and emotional areas, as well as background requirements. Students are required to take various examinations common to the field of criminal justice. These examinations include quarterly physical training assessments. Passing these physical training assessments is a prerequisite to CJ 237.

This AAS-T degree is transferable to some four-year institutions. Students interested in transfer should contact the SCC Criminal Justice program instructors or the department chair for a list of four-year institutions that have agreed to accept this degree.

Credits from the police academy training can apply toward meeting the course requirements of this program.

A prior criminal, traffic or drug history may exclude individuals from employment. For further information, contact a program instructor.

Program Requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program. Any student with an arrest record must have the department chair approval to take any Criminal Justice classes and/or to enter the Criminal Justice program.

#### AAS-T

AQUAT	101	Beginning Swimming 1
CJ&	101	Intro to Criminal Justice
CJ	102	Administration of Justice
CJ	103	Police Organization and Administration 3
CJ	104	Crime Scene Diagramming5
CJ	108	Introduction to Traffic Investigation <sup>1</sup> 3

CI	132	Criminal Justice Physical Training <sup>2</sup>	73
CI	132	Criminal Justice Physical Training <sup>2</sup>	
CI	150	Criminal Justice Report Writing 5	S
CI	200	Officer's Survival <sup>3</sup> 5	븯
CI	201	Laws of Arrest. Search and Seizure <sup>4</sup> 5	Ξ
CI	203	Police Interviewing Techniques	5
CI	205	Introduction to Criminal Law <sup>4</sup>	0
CI	209	Human Relations	R
CI	210	Police Psychology	ß
ĊĴ	211	Crime Scene Investigations <sup>5</sup>	ŏ
ĊĴ	212	Professional Development 1	РВ
CJ	228	Ethics - Standards of Conduct	
CJ	235	Firearms Safety <sup>6</sup>	
CJ	236	Firearms Qualifications <sup>6</sup> 2	
CJ	237	Criminal Justice Self-defense <sup>7</sup>	
CJ	241	Criminal Justice Physical Training <sup>2</sup> 1	
CJ	242	Criminal Justice Physical Training <sup>2</sup> 1	
CJ	243	Criminal Justice Physical Training <sup>2</sup> 1	
CMST&	101	Introduction to Communication <sup>8</sup> 5	
CMST&	210	Interpersonal Communication <sup>8</sup> 5	
ENGL&	101	English Composition I <sup>8</sup> 5	
ENGL&	235	Technical Writing <sup>8</sup> 5	
MATH&	107	Math in Society <sup>8</sup> 5	
		Recommended Electives List A	
		Recommended Electives List B 3	
		Total	

#### 116 credits are required for the AAS-T.

#### **RECOMMENDED ELECTIVES LIST A**

ASL&	121	Am Sign Language I	5
BIOL&	160	General Biology w/Lab	5
BT	101	Keyboarding	5
BT	160	Job Preparation Techniques	3
BUS	102	Math Skills for Business	3
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	280	Human Relations in Business	5
CHEM	101	General Chemistry	5
CIS	110	Introduction to Computer Applications	5
HUM&	101	Intro to Humanities	5
HUM	102	Introduction to Women's Studies	5
PHIL&	101	Intro to Philosophy	5
PHIL	210	Ethics	5
PSYC&	100	General Psychology	5
RUSS&	121	Russian I	5
SOC&	101	Intro to Sociology	5
SOC	221	Race and Ethnic Relations	5
SOC	261	Crime and Justice	5
SPAN&	121	Spanish I	5

#### **RECOMMENDED ELECTIVES LIST B**

CJ	265	Service Learning Volunteer Project
CJ	266	Cooperative Education Seminar 1
CJ	267	Cooperative Education Work Experience 1-2
CJ	288	Cooperative Education Work Experience (No Seminar)1-3

288 Cooperative Education Work Experience (No Seminar)1-3

- <sup>1</sup> CJ 101, 102 and 104 are prerequisites.
- <sup>2</sup> Requires medical insurance and a doctor's release if needed; requires fitness assessment. If assessed below minimum fitness level, CJ 208 is a recommended prerequisite. PE 186 (for audit) is required to be taken concurrently with CJ 132, 133, 208, 241, 242 and 243.
- <sup>3</sup> CJ 150, 201,205 and 237 are prerequisites.
- <sup>4</sup> CI& 101 and 102 are prerequisites.
- <sup>5</sup> CJ 104, 150, 201, 203 and 205 are prerequisites.
- <sup>6</sup> CJ 235 and 236 must be taken concurrently.
- <sup>7</sup> Passing one quarter of CJPT is required before taking this course.
- <sup>8</sup> May be substituted with any course or combination of courses approved by the instructional dean.
- <sup>9</sup> CJ 266 and CJ 267 or CJ 288 or any criminal justice course must be taken concurrently.

# **CULINARY ARTS**

#### AAS: SCC

Basic and advanced procedures in food preparation are included in the two-year Culinary Arts program. A detailed study is made of the various cooking methods for meats, fish, poultry, vegetables, soups and sauces. Menu terminology and cooking terms are defined and illustrated. Students are given the opportunity to study management factors affecting food cost control, specifications and standards for foods, sanitation, kitchen planning, kitchen equipment, and personnel policies.

This program is accredited by the American Culinary Federation (ACF).

A 2.0 grade or better must be maintained in all Commercial Baking (BAK), Culinary Arts (CUL) or Hotel/Restaurant Management (HM) courses for an AAS degree.

#### AAS

#### **First Quarter**

APLED CUL	121 110 115	Applied Written Communication <sup>1</sup> 4      Introduction to Culinary Arts    5      Food Sanitation <sup>2</sup> 3
HM	112	Hospitality Mathematics
ISFTY	111	Industrial First Aid
101 1 1		Total
Second	Oua	rter
CUI.	124	Cooking Applications I <sup>1</sup> 7-10
CUL	121	Food Science 5
HM	116	Nutrition for Chefs and Restaurant Managers 3
1 11/1	110	Total
Third O	uarte	Pr
CIII	123	Febresso 2
CUI	120	Banquet Service 2
CUL	131	A la Carte Service 9
HM	130	Human Relations <sup>1</sup> 5
	100	Total
Fourth	Ouar	ter
CUL	253	Advanced Cooking Theory 5
CUL	254	A la Carte Cooking I
CUL	266	Cooperative Education Seminar <sup>3</sup>
CUL	267	Cooperative Education Work Experience <sup>3</sup> 4
		Total
Fifth Ou	ıarte	r
BAK	140	Yeast Doughs 1
CUL	243	Theory of Restaurant Baking
CUL	244	Restaurant Baking Applications 10
CUL	265	Hospitality Cost Controls
		Total
Sixth Q	uarte	er
CUL	255	Menu Planning
CUL	260	Presidential
CUL	263	Theory of Modern Cuisine
CUL	264	A la Carte Cooking II
		Total

#### 109-112 credits are required for the AAS.

- <sup>1</sup> This course may be substituted with any course or combination of courses approved by the instructional dean.
- <sup>2</sup> This course is required for certification by the Educational Foundation of the National Restaurant Association.
- <sup>3</sup> CUL 266 and 267 must be taken concurrently. May be substituted with CUL 288 for five credits.

## CUSTOMER SERVICE REPRESENTATIVE

#### AAS: SCC

The Customer Service Representative program prepares students to work as commercial or residential service representatives in the telephone industry and also for similar positions in major department stores, collection agencies, credit bureaus, airlines, travel agencies, medical insurance agencies, public utilities and telephone answering

services. This program is designed to give the students the necessary knowledge and skills to deal directly with customers in matters of credit application, bill collection, making arrangements for equipment installation and servicing, and acting as the company representative in special problems that may arise.

# AAS

First Q	uarte	r
BT	102	Document Processing 5
BT	105	Basic Grammar for Business II
BT	151	Business Student Preparation
CATT	102	Introduction to Outlook2.5
		Total
Second	l Qua	rter
BT	109	Business Communications
BT	165	Word Processing
BT	231	Office Procedures
BUS&	101	Intro to Business
		Total
Third Q	)uart	er
ACCT	151	College Accounting I <sup>1</sup> 5
BT	201	Information Processing 5
BUS	103	Basic Business Math and Electronic Calculators <sup>2</sup> 5
		Total
Fourth	Quar	rter
BT	202	Advanced Information Processing
BT	272	Business Correspondence
ECON	100	Fundamentals of Economics <sup>3</sup> 5
		Total
Fifth Q	uarte	r
BT	250	Information Technology5
BUS&	201	Business Law
CMST&	210	Interpersonal Communication
		Total
Sixth Q	uart	er
BT	160	Job Preparation Techniques
BT	260	Administrative Office Management
BT	285	Administrative Professional Internship 2
BUS	280	Human Relations in Business
		Total
07 E 674	dite	are required for the AAC

#### 97.5 credits are required for the AAS.

<sup>1</sup> ACCT 151 may be substituted with ACCT& 201.

- <sup>2</sup> BUS 103 may be substituted with BT 128.
- <sup>3</sup> ECON 100 may be substituted with ECON& 202.

## DENTAL ASSISTING

#### AAS, Certificate: SCC

A one-year program designed to prepare the student for employment as a chairside assistant to the dentist.

Chairside area: record medical and dental history; prepare treatment room; prepare patient for treatment; chart patient information; assist the dentist in general and specialty treatment of patient; sterilize and disinfect dental instruments; expose, process and mount radiographs; teach brushing and flossing; prepare various dental materials; perform expanded functions that are legal in the state of Washington; and order and maintain dental supplies.

Reception area: appoint patients for treatments, maintain a patient recall system, file and maintain patient and office records, complete patient insurance forms and make financial arrangements with patients.

This program is accredited by the American Dental Association. Students who successfully complete the program are eligible to take the Dental Assisting National Board exam.

- High school diploma or GED certificate required
- Appropriate scores in ASSET or COMPASS required
- Computer skills recommended
- Active e-mail account recommended
- Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter. All electives

PROGRAM OUTLINES

must be numbered 100 or above.

 Students may repeat a dental assisting course once, but it must be repeated within two years.

#### AAS

		Total	45
		Social Science Elective	. 5
		Math/Science Elective	. 5
		Communication or Humanities Electives	10
SOC&	101	Intro to Sociology.	. 5
PSYC&	100	General Psychology	. 5
CMST&	101	Introduction to Communication	. 5
CHEM&	110	Chemical Concepts w/Lab <sup>1</sup>	. 5
BIOL&	160	General Biology w/Lab	. 5

#### **First Quarter**

		Total	2	Л
ENGL&	101	English Composition I		5
DENT	118	Dental Anatomy		4
DENT	116	Dental Restorative Techniques		3
DENT	114	Introduction to Dental Radiology		3
DENT	112	Chairside Related Theory		4
DENT	111	Introduction to Dental Assisting		5

#### Second Quarter

Third O	uarte	ar	
		Total	3
DENT	129	Chairside Clinical Experience	2
DENT	126	Dental Restorative Techniques	4
DENT	124	Advanced Dental Radiology	2
DENT	122	Chairside Related Theory	4
DENT	121	Intermediate Chairside Assisting	6
CMST&	210	Interpersonal Communication	5

#### Inira Quarter

		Total	9
DENT	139	Chairside Clinical Experience	8
DENT	138	Office Management	3
DENT	136	Dental Restorative Techniques	2
DENT	131	Advanced Chairside Assisting	6
	•		

#### 111 credits are required for the AAS.

#### CERTIFICATE

#### **First Quarter**

ENGL&	101	English Composition I	5
DENT	118	Dental Anatomy	4
DENT	116	Dental Restorative Techniques	3
DENT	114	Introduction to Dental Radiology	3
DENT	112	Chairside Related Theory	4
DENT	111	Introduction to Dental Assisting	5

#### **Second Quarter**

		Total	23
DENT	129	Chairside Clinical Experience	2
DENT	126	Dental Restorative Techniques	4
DENT	4.0.4		
DENT	124	Advanced Dental Radiology	2
DENT	122	Chairside Related Theory	4
DENT	121	Intermediate Chairside Assisting	6
CMST&	210	Interpersonal Communication	5

#### **Third Quarter**

DENT	131	Advanced Chairside Assisting	5
DENT	136	Dental Restorative Techniques 2	2
DENT	138	Office Management	3
DENT	139	Chairside Clinical Experience	3
		Total 10	

## 66 credits are required for the Certificate.

<sup>1</sup> CHEM& 110 may be substituted with CHEM& 121.

#### **DENTAL HYGIENE PRE-MAJOR**

#### AA-DTA: SCC, SFCC

The skills of a dental hygienist emphasize preventive dentistry. Dental hygienists may be employed in private dental offices, hospitals, group health clinics, public health agencies, school and industry.

Upon completing the pre-Dental Hygiene requirements, the student may then transfer to an approved four-year bachelor's degree program in Dental Hygiene for professional course work. Such a program should be approved by the American Dental Association and the American Dental Hygienist Association. In order to practice, a graduate hygienist must pass a national written board examination given by the American Dental Association and a state licensing examination administered by individual state boards of dental examiners. 75

Consult with the college counseling department for a listing of approved Dental Hygiene bachelor's degree programs. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	0

#### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **DENTISTRY PRE-MAJOR**

#### AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

Students planning a career in Dentistry should consult the catalog of the school of dentistry to which they plan to transfer. Competition for admission is intense and a high overall college grade point average must be maintained.

It is recommended that students acquire a broad background in areas such as fine arts, speech, languages, literature, business administration and the behavioral sciences.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

90 credits are required for the AA-DTA.

#### ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

S	ggested Courses to Consider <sup>1</sup>	90
1	tal q	0

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 			-						_	 	 

#### 90 credits are required for the Associate in Biology DTA/MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **DIAGNOSTIC MEDICAL SONOGRAPHY**

#### AAS: SCC

Diagnostic Medical Sonography is an allied Health Profession where non-physician professionals perform a diagnostic procedure using high frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues, or blood flow inside the body. Sonography is used to examine many parts of the body: abdomen, breasts, OB/GYN, thyroid, scrotum, and blood vessels. It is also used to guide needles for tissue biopsy or drain an abnormal fluid collection from a body cavity. Sonography is a radiation-free imaging modality and procedures are performed at the request of a physician.

A diagnostic medical sonographer is a highly-skilled professional who uses specialized equipment to create images of structures inside the human body that are used by physicians to make a medical diagnosis. Prior to starting a procedure, the sonographer must obtain an appropriate history, assess physical findings and review pertinent laboratory data. This information is used to tailor the procedure to ensure comprehensive and diagnostic images are acquired. A 2.5 grade must be achieved in each prerequisite course before applying for admission to the Diagnostic Medical Sonography Program. It is strongly recommended that prospective Diagnostic Medical Sonography Program students complete 40 hours of volunteer service in a medical facility to gain exposure to the demands of an allied health career.

After entering the Diagnostic Medical Sonography program, students are required to obtain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students may repeat a professional class once, but it must be completed within two years.

Admission Recommendations:

- Active email account
- Computer skills
- CHEM 120 Organic and Biochemistry of Health Sciences
- CHEM& 121 Introduction to Chemistry
- Admission Requirements:
- Appropriate ASSET or COMPASS scores
- After program acceptance, physical examination, immunizations, drug screening, and Washington State Patrol (WSP) background
- High School diploma or GED certificate
- interview with Diagnostic Medical Sonography Program Director
- Students may repeat a professional course once, but it must be repeated within two years.

#### AAS

#### Prereauisites

1	isites	3
BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
ENGL&	101	English Composition I
MATH	099	Intermediate Algebra
PHYS	100	Introductory Physics
First Qu	ıarte	r
HED	125	Medical Terminology 5
SONO	111	Diagnostic Ultrasound I 2
SONO	112	Vascular Fundamentals 4
SONO	121	Human Cross-Section Anatomy4
SONO	125	Ultrasound Physics and Instrumentation I 5
		Total
Second	Qua	rter
HED	109	Human Physiology and Disease
SONO	131	Diagnostic Ultrasound II
SONO	135	Ultrasound Physics and Instrumentation II5
VASC	122	Vascular Procedures I
		Total
Third Q	uart	er
HIT	129	Pathophysiology
NCT	133	Noninvasive Cardiovascular Fundamentals
SONO	141	Diagnostic Ultrasound III
		Total
Fourth	Ouar	ter
CMST	127	Leadership Development 3
SONO	142	Sonography Clinical Preparation
SONO	143	Sonography Clinical I
		Total
Fifth Or	larte	·····
SONO	251	Advanced Sonography 6
SONO	253	Sonography Clinical II
JONO	255	
c:		
	uarto	
SONO	263	Sonography Clinical III
		Total
Sevent	h Qua	arter
SONO	273	Sonography Clinical IV 13
		Total

106 credits are required for the AAS.

## **DIESEL/HEAVY DUTY EQUIPMENT**

#### AAS: SCC

Diesel/Heavy Duty mechanics repair and maintain trucks, buses, logging, mining, agricultural and construction equipment. In addition, they maintain and repair diesel and gasoline engines, compressors and pumps.

Students may enter the program any quarter.

## AAS

#### **First Quarter** APLED 121 Applied Written Communication<sup>1</sup>......4 HEQ Basic Electrical Theory ..... 7 111 HEO 112 **Second Quarter** APLED 112 Applied Mathematics<sup>1</sup>......4 Basic Principles of Engine Theory.....7 HEO 121 HEQ 122 **Third Quarter** APLED 123 Leadership Skills for Business and Industry<sup>1</sup>.....4 Computer Fundamentals for Vocations I<sup>1</sup> ..... 1 CIS 105 HEQ 131 HEQ 132 **Fourth Quarter** HEQ 241 Heavy Equipment Hydraulic Theory ...... 7 HEQ Heavy Duty Equipment Hydraulic Application.....9 242

#### **Fifth Quarter**

	4 - 0	A TAT 1 1.	4
AGGEN	152	Arc Welding	4
AGGEN	153	Oxy-acetylene Welding	4
HEQ	251	Practical Shop Procedures	7
HEQ	252	Practical Shop	8
		Total	3
Sixth Q	uarte	er	
HEQ	261	Practical Shop Procedures	8
		D 1 1 01	_

 	 . 4
 	 . 5
 	 . 8

#### 121 credits are required for the AAS.

#### **APPROVED HEQ ELECTIVE**

APLED	125	Employment Preparation
HEQ	101	Trucking Theory 2-4
HEQ	102	Trucking Applications 4-6
HEQ	294	Special Problems
ISFTY	111	Industrial First Aid 2
1 This re	lated e	ducation requirement may be met by any course or combination

- This related education requirement may be met by any course or combination of courses approved by the instructional dean.
- <sup>2</sup> APLED 125-3 credits, HEQ 294-3 credits and ISFTY 111-2 credits offered within the 4th and 6th quarters (all are required courses for those students NOT seeking a Commercial Drivers License). These courses may be substituted with HEQ 101-4 credits and HEQ 102-4 credits for those students who are seeking a Class B Commercial Drivers License (CDL).

## DIGITAL MEDIA PRODUCTION

#### AAS-T: SFCC

The Digital Media Production AAS-T degree in an interdisciplinary study of photography, journalism and documentary video production that prepares students to pursue careers in a variety of communication fields such as news reporting, photojournalism, video journalism, marketing, and public relations.

The Digital Media Production AAS-T degree will allow students to draw upon the strengths of various existing departments to help develop the skills necessary to succeed in various, rapidly evolving field centered around media production.

By bringing together resources from journalism, photography, graphic design, web design, and audio technology, the AAS-T degree in Digital Media Production will help students develop skills in photography and video production, journalistic storytelling, audio capture, web design, and the clear and concise presentation of content through an understanding of the elements and principles of good design.

#### AAS-T

#### **First Quarter**

	Total
PHOTO 126	Digital Photography I 5
GRDSN 163	InDesign I 2
ENGL& 101	English Composition I
ART 105	Color and Design 5

#### **Second Quarter**

	Total 17	
PHOTO 131	Introduction to Photojournalism	
JOURN 220	Introduction to News Writing 5	
JOURN 110	Mass Media 5	
AUDIO 101	Audio Fundamentals for Multimedia	

#### **Third Quarter**

	Total 1	5
PHOTO 200	Photography Media	4
PHOTO 112	Photographic Design	4
JOURN 224	Advanced News Reporting	5
GRDSN 176	Introduction to Page Design	2

#### **Fourth Quarter**

15		
5		
3		
5		
2		

#### Fifth Quarter

ACCT	141	QuickBooks	2
GRDSN	171	Flash	2
JOURN	102	College Newspaper Production II	3
JOURN	225	Multimedia Journalism	5
PHOTO	227	Business of Photography	3
		Total	5
Sixth Q	uarte	r	
JOURN	103	College Newspaper Production III	3
PHOTO	237	Introduction to Documentary DV Production	5
PHOTO	266	Cooperative Education Seminar	1
PHOTO	267	Cooperative Education Work Experience	2

95 credits are required for the AAS-T.

## **DRAMA PRE-MAJOR**

PSYC& 100 General Psychology......5

#### **AA-DTA: SFCC**

The aim of the Drama program is the development of appreciation and understanding within the participants and the audience of live theater. The department also attempts through its courses to establish aesthetic values that may be applied to motion pictures and television as well as live theater and to build a respect for the tradition of the theater as a major artistic instrument of society.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

	• • •	90
lotal		90
90 credits are required for the AA-DTA.		

#### SUGGESTED COURSES TO CONSIDER

ART&	100	Art Appreciation.	5
CMST&	101	Introduction to Communication	5

CMST	110	Voice and Articulation	
CMST	114	Oral Interpretation of Literature	
CMST&	220	Public Speaking 5	S
DRMA&	101	Intro to Theatre	Z
DRMA	106	Rehearsal and Performance 1-5	Ę
DRMA	107	Rehearsal and Performance 1-5	20
DRMA	108	Rehearsal and Performance 1-5	5
DRMA	120	Performance and Audition Techniques	Ā
DRMA	121	Contemporary Acting	ß
DRMA	220	Classical Acting	8
DRMA	221	Acting for Film and Television	Ы
DRMA	230	Stagecrafting Theatrical Design 1-5	
DRMA	233	Makeup	
ENGL&	111	Intro to Literature	
ENGL&	114	Intro to Drama	
ENGL&	220	Intro to Shakespeare 5	
ENGL&	236	Creative Writing I 5	
ENGL&	237	Creative Writing II	
HUM	141	Introduction to Film	
MUSC&	105	Music Appreciation	

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution. Refer to AA degree worksheet for list of approved courses and credit requirements in each distribution area.

## EARLY CHILDHOOD EDUCATION

#### **AAS, Certificate: SFCC**

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/ motor and creative development for children from birth through age 8. Courses also are available for caregivers of school-age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are based on the Washington State Skill Standards and are offered day, evening and online.

SFCC Early Childhood Education program options:

- Certificates of Specialization (20-30 credits) eight certificates that focus on a specific area of study.
- Early Childhood Education Certificate (57-60 credits) contains the ECED core content courses. Valid first aid card required for certificate.
- Associate in Applied Science (AAS) degree (90-93 credits) contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for articulation into a BA degree.
- Associate of Applied Science Transfer degree (AAS-T) (91-92 credits) - contains ECED core content with the option to transfer to accepting four-year schools.
- Associate of Arts (AA) degree (90 credits) includes 15 credits of electives in ECED that transfers to four-year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.
- State Training and Registry System (STARS) Accepts college credits to meet STARS requirements.

#### AAS

#### **First Quarter** 101 The second The second state of the Charles of The

eced	101	issues and irends in Early Childhood Education
eced	102	Observation and Documentation 1-2
eced	103	College Success
eced	124	Methods of Learning
		Total
Second	Quar	rter
ECED	4.0.5	
eced	135	Infant/Toddler Care and Education
ECED	135 190	Child Development
ECED ECED ENGL&	135 190 101	Infant/Ioddler Care and Education       5         Child Development       5         English Composition I       5

#### **Third Ouarter**

	-		
ECED	226	Curriculum Development	5
ECED	230	Learning Environments	5

EDUC& 204 Exceptional Child5
HLTH 174 First Aid 3
Total
Fourth Quarter
ECED 132 Fostering Social Competence
ECED 290 School-age Development
Math Elective
Total 13-15
Fifth Quarter
ECED 254 Dynamics of Family Relationships
ECED 281 Capstone Practicum
ECED Elective <sup>1</sup> 5
Total
Sixth Quarter
ECED 282 Practicum I 5
HS 136 Improving Interpersonal Communication5
Approved Elective <sup>1</sup> 5
Total
90-93 credits are required for the AAS.

#### CERTIFICATE

#### EARLY CHILDHOOD EDUCATION CERTIFICATE

\*Valid first aid card required for this one year certificate.

		IUldi
		Total 67.60
		Math Flective 3-5
HS	136	Improving Interpersonal Communication
ENGL&	101	English Composition I
ECED	281	Capstone Practicum
ECED	230	Learning Environments
ECED	226	Curriculum Development 5
ECED	190	Child Development 5
ECED	135	Infant/Toddler Care and Education 5
ECED	132	Fostering Social Competence 5
ECED	124	Methods of Learning 5
ECED	103	College Success 3
ECED	102	Observation and Documentation 1-2
ECED	101	Issues and Trends in Early Childhood Education 5

## 57-60 credits are required for the Certificate.

#### CHILD CARE ADMINISTRATION SPECIALIST

		Total
SBM	101	How to Start a Small Business 5
ECED	290	School-age Development 5
ECED	260	Child Care Administration 5
ECED	190	Child Development 5
ECED	101	Issues and Trends in Early Childhood Education 5

#### 25 credits are required for the Certificate.

#### **CURRICULUM DEVELOPMENT SPECIALIST**

ECED	230	Learning Environments
ECED	226	Curriculum Development 5
ECED	190	Child Development 5
ECED	124	Methods of Learning5
ECED	102	Observation and Documentation 1-2

#### 21-22 credits are required for the Certificate.

#### EARLY CHILDHOOD SPECIALIST I

		Total
ECED	230	Learning Environments
ECED	190	Child Development 5
ECED	132	Fostering Social Competence 5
ECED	124	Methods of Learning5
ECED	102	Observation and Documentation 1-2

#### 21-22 credits are required for the Certificate.

#### EARLY CHILDHOOD SPECIALIST II

\*Must have Early Childhood Specialist I

ECED	101	Issues and Trends in Early Childhood Education <sup>2</sup> 5
ECED	254	Dynamics of Family Relationships 5

		Total	0
ECED	282	Practicum I	5
ECED	281	Capstone Practicum	5

#### 20 credits are required for the Certificate.

#### FAMILY CHILD CARE SPECIALIST

ECED	101	Issues and Trends in Early Childhood Education <sup>3</sup> 5
ECED	102	Observation and Documentation 1-2
ECED	132	Fostering Social Competence 5
ECED	190	Child Development 5
ECED	254	Dynamics of Family Relationships 5
		Total

#### 21-22 credits are required for the Certificate.

#### FAMILY SERVICES ADVOCATE

ECED	190	Child Development	 	 . 5
ECED	254	Dynamics of Family Relationships	 	 . 5
HS	136	Improving Interpersonal Communication	 	 . 5
HS	281	Practicum I	 	 . 5
		Total	 	 20

#### 20 credits are required for the Certificate.

#### **INFANT TODDLER SPECIALIST**

		Total
eced	254	Dynamics of Family Relationships
eced	190	Child Development 5
eced	135	Infant/Toddler Care and Education
eced	132	Fostering Social Competence
eced	102	Observation and Documentation 1-2

#### 21-22 credits are required for the Certificate.

#### SCHOOL-AGE CARE SPECIALIST

		Total	1-22
eced	290	School-age Development	5
eced	280	School-age Guidance	5
eced	270	School-age Creative Activities	5
eced	260	Child Care Administration	5
eced	102	Observation and Documentation	1-2

#### 21-22 credits are required for the Certificate.

#### ECED ELECTIVE

ECED	100	Basic Child Care Training.	2
ECED	101	Issues and Trends in Early Childhood Education	5
ECED	118	Early Childhood Education Seminar0.5-1	11
ECED	124	Methods of Learning	5
ECED	125	Science Methods in ECED	3
ECED	132	Fostering Social Competence	5
ECED	190	Child Development	5
ECED	226	Curriculum Development	5
ECED	230	Learning Environments	5
ECED	254	Dynamics of Family Relationships	5
ECED	260	Child Care Administration	5
ECED	270	School-age Creative Activities	5
ECED	280	School-age Guidance	5
ECED	283	Practicum II	5
ECED	290	School-age Development	5

#### APPROVED ELECTIVE

ASL&	121	Am Sign Language I 5
CMST	121	Job Communication Skills 2-5
EDUC&	205	Intro to Ed w/ Field Exp 5
EDUC	270	Introduction to Developmental Disabilities5
EDUC	275	Learning Disabilities
EDUC	280	Behavior/Classroom Management5
ENGL&	111	Intro to Literature
GENST	106	College Success 2-3
HS	105	Child Abuse
HSEAR	106	Introduction to Deaf Culture
IS	120	Business Computer Use
PSYC&	100	General Psychology5
PSYC	210	Conception through Adolescent Developmental
		Psychology
PSYC	250	Psychology of Adjustment

# **PROGRAM OUTLINES**

SBM	101	How to Start a Small Business
SOC&	101	Intro to Sociology
SOC	211	Marriage and the Family 5
A A A THE P	LECT	

#### MATH ELECTIVE

BUS	102	Math Skills for Business
MATH	090	Pre-Algebra

<sup>1</sup> Elective may be selected with the approval of an early childhood education instructor.

<sup>2</sup> ECED 101 may be substituted with ECED 226.

<sup>3</sup> ECED 101 may be substituted with ECED 124.

<sup>4</sup> MATH 090 may be substituted with any higher level math course.

## EARLY CHILDHOOD EDUCATION (AAS-T)

#### AAS-T: SFCC

The AAS-T is an associate degree providing comprehensive core early childhood content (51-52 credits) based on the National Association for the Education of Young Children (NAEYC) and the Washington State Skill standards. The balance of the degree is made up of significant general education coursework (40 credits) necessary for transfer.

Graduation requirements for AAS-T in Early Childhood Education Development: 91-92 credits from the associate of arts degree and the associate in applied science degree:

- Communication Skills: 10 credits of English composition, or 5 credits of English composition and 5 credits of speech
- Quantitative Skills: 5 credits from quantitative reasoning courses mathematics
- Humanities: 5 credits from group A and 5 credits from group B or C
- Social Sciences: 5 credits from group A and 5 credits from group B
- Mathematics/Science: 5 credits from a laboratory course in group B sciences
- Writing and Diversity: At least one 5-credit writing-intensive course ("W" designated course) must be included within the distribution. At least 5 credits must be chosen from the approved list of diversity courses ("D" designated course).

#### AAS-T

#### **First Quarter**

ECED	101	Issues and Trands in Early Childhood Education 5
ECED	101	Observation and Degumentation
ECED	102	Child Development
ECED	190	Child Development
		Communication
		Total16-17
Second	l Qua	rter
ECED	124	Methods of Learning
ECED	135	Infant/Toddler Care and Education
		Communication 5
		Total
Third C	luart	
CMET	2007	Lateraultural Communication 1
CIVISI	100	
ECED	132	Fostering Social Competence
ECED	290	School-age Development <sup>2</sup> 5
		Total
Fourth	Quar	rter
ECED	226	Curriculum Development
ECED	230	Learning Environments
		Quantitative/Symbolic Reasoning Course - Math <sup>3</sup> 5
		Total
	uarte	
ECED	254	Dynamics of Family Relationships
		Humanifies <sup>3</sup>
		Social Sciences: Group A <sup>3</sup> 5
		Total
Sixth Q	Juart	er
ECED	281	Capstone Practicum
		Mathematics/Sciences: Group B (lab course) <sup>3</sup>
		Social Sciences: Group B <sup>3</sup>
		Total
		IUtal

#### 91-92 credits are required for the AAS-T.

#### COMMUNICATION

C E E	MST& NGL& NGL&	101 101 102	Introduction to Communication	
1	CMST	227 са	ompletes 5 of the 10 credit humanities requirement.	
2	ECED	290 m	ay be substituted with EDUC& 204.	
3	See AA	degre	e requirements for acceptable course listings.	

## EARTH SCIENCE PRE-MAJOR

#### AA-DTA, AS-T #1: SCC, SFCC

Earth Science involves the investigation of planet Earth and its many systems. It includes the study of solid Earth and the interrelations with Earth's atmosphere, hydrosphere, and biosphere. Earth scientists utilize foundational knowledge from chemistry, biology, and physics to identify and solve a wide array of problems associated with Earth's systems. Earth scientists research and study a variety of topics including traditional geology, geophysics and geodesy, soils, hydrology, oceanography, glaciology, meteorology, climatology and atmospheric chemistry. Finally, Earth scientists investigate the relationships of life and the biosphere to the various Earth systems.

Careers in the Earth Sciences are numerous and diverse. Earth Science majors can find employment opportunities in the public sector working for government agencies at the local, state, and federal levels. Earth scientists are also employed within the fields of engineering (private and public sectors) associated hazards mitigation and management, as well as the exploration, development, and management of resources (water, energy, minerals, timber, fisheries, and agriculture). Earth scientists successfully pursue careers in a variety of outdoor recreational fields as park rangers, interpretive guides, and naturalists. Finally, teaching at various levels is also a career option for students with undergraduate or graduate Earth Science degrees.

Consult a counselor or academic adviser for recommended courses specific to the student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

90 credits are required for the AA-DTA.

#### AS-T #1

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested	Courses	; to	Co	nsic	ler	 • •	·	• •	• •	• •	·	·	• •	·	·	90
Total																90

90 credits are required for the AS-T #1.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **ECONOMICS PRE-MAJOR**

#### AA-DTA, Associate in Business DTA/MRP: SCC, SFCC

Economics is the study of how people efficiently satisfy their unlimited wants within the realistic context of scarce resources. This program introduces students to economic principles, which govern consumption, production, distribution and exchange in a capitalist market economy – the US, within the dynamics of modern day global forces.

Economics involves analytical training and quantitative reasoning which enables students to successfully evaluate complex real world situations, making this one of the most versatile bachelor's degrees to obtain, providing students with a solid framework to transfer to business programs, or pursue degrees in law, public policy or other social sciences.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## 80 AA-DTA

# See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### 90 credits are required for the AA-DTA.

#### ASSOCIATE IN BUSINESS DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total.	90

90 credits are required for the Associate in Business DTA/ MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## EDUCATION PARAPROFESSIONAL, SPECIAL EDUCATION

#### AAS, Certificate: SFCC

The Education Paraprofessional program provides theory and practice in the skills for working as effective members of instructional teams. An education paraprofessional works under the supervision of a licensed/ certificated staff member to assist and support educational services. Courses within all options address the Washington State Core Competencies for Paraeducators and the Washington State Skill Standards. The core curriculum focuses on current issues and historical foundations of regular and special education, instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. Supervised practicum opportunities for hands-on experiences in schools are provided throughout this course of study. The focus on Special Education includes the core curriculum courses described above yet delve deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities.

AAS Education Paraprofessional, **General Education**: The goal for this option is to support learners experiencing delays and/or those who are learning English as well as typical students within a general education setting.

AAS Education Paraprofessional, **Early Childhood**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become paraeducators in grades K-3.

AAS Education Paraprofessional, **School Library Media Technician**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become education paraprofessionals or school library technician paraprofessionals in a K-12 library. Library science (LMLIB) classes are taught online and students are required to take an onsite work experience class, LMLIB 267.

#### AAS

#### EDUCATION PARAPROFESSIONAL, SPECIAL EDUCATION First Quarter

EDUC& ENGL&	204 101	Exceptional Child
		Total 13-15
Second	Quar	rter
EDUC&	205	Intro to Ed w/ Field Exp 5
HS	136	Improving Interpersonal Communication5
PSYC&	100	General Psychology
		Total
Third Q	uarte	er i i i i i i i i i i i i i i i i i i i
ECED	190	Child Development <sup>1</sup>
EDUC	280	Behavior/Classroom Management
HSGER	115	Multi-Cultural Perspectives in Human Services 5
		Total

#### **Fourth Quarter**

CMST	121	Job Communication Skills <sup>2</sup> 2
EDUC	252	Social/Emotional Development
HLTH	174	First Aid 3
		Approved Electives <sup>3</sup>
		Total
Fifth Qu	ıarte	r
EDUC	270	Introduction to Developmental Disabilities
EDUC	281	Education/Special Education Practicum I
		Approved Electives <sup>3</sup>
		lechnology Elective <sup>4</sup>
		lotal
Sixth Q	uarte	
ASL&	121	Am Sign Language I
EDUC	275	Learning Disabilities
EDUC	282	Education/Special Education Practicum II
00.02.0	radit	IUldi
90-92 C	realt	s are required for the AAS.
EARLY C	CHILE	DHOOD EDUCATION OPTION
First Qu	ıarte	r
EDUC&	204	Exceptional Child 5
ENGL&	101	English Composition I
		Math Elective
		Total 13-15
Second	Qua	rter
EDUC&	205	Intro to Ed w/ Field Exp
HS	136	Improving Interpersonal Communication
PSYC&	100	General Psychology
		Iotal 15
	uarto	
ECED	190	Child Development <sup>1</sup>
LISCED	280	Multi Cultural Parapactivas in Human Samias
TIJGEK	115	Total
Fourth	<b>^</b>	10tal
CMST	<b>Quar</b>	Leh Communication Skille?
FDUC	$\frac{121}{252}$	Social/Emotional Development 5
HITH	174	First Aid
	17.1	Approved Electives <sup>3</sup>
		Total
Fifth Ou	Jarte	r
ECED	132	Fostering Social Competence
ECED	230	Learning Environments
EDUC	281	Education/Special Education Practicum I
		Total
Sixth O	uarte	2ť
ECED	124	Methods of Learning
ECED	254	Dynamics of Family Relationships
EDUC	282	Education/Special Education Practicum II
		Technology Élective <sup>4</sup> 2
		Total
90-92 c	redit	s are required for the AAS.
GENER	AI FC	DUCATION OPTION
First O	iarte	r
EDUC&	204	- Exceptional Child 5
ENGL&	101	English Composition I 5
		Math Elective
		Total
Second	Oua	rter
EDUC&	205	Intro to Ed w/ Field Exp. 5
HS	136	Improving Interpersonal Communication
PSYC&	100	General Psychology
PSYC&	100	General Psychology
PSYC& Third O	100 uarte	General Psychology
PSYC& Third Q ECED	100 <b>uarto</b> 190	General Psychology

HSGER 115 Multi-Cultural Perspectives in Human Services ..... 5

Fourth	Quar	ter
CMST	121	Job Communication Skills <sup>2</sup> 2
EDUC	252	Social/Emotional Development 5
HLTH	174	First Aid
		Approved Electives <sup>3</sup>
Eifth Or	iarto	10tal15
CMST&	101	Introduction to Communication 5
EDUC	281	Education/Special Education Practicum I
LDCC	201	Approved Electives <sup>3</sup>
		Technology Elective <sup>4</sup> 3
		Total
Sixth Q	uarte	er
ECED	254	Dynamics of Family Relationships 5
EDUC	282	Education/Special Education Practicum II
		English or Math Elective <sup>3</sup>
00.02.0	radite	$\frac{1000}{1000}$
90-92 C	reuits	s are required for the AAS.
SCHOO	L LIB	RARY MEDIA TECHNICIAN OPTION
First Qu	iarte	r
EDUC&	204	Exceptional Child
ENGL&	101	English Composition 1
		Total 13-15
Second	Qua	rter
FDUC&	205	Intro to Ed w/ Field Exp 5
HS	136	Improving Interpersonal Communication
PSYC&	100	General Psychology
		Total
Third Q	uarte	er
ECED	190	Child Development <sup>1</sup> 5
EDUC	280	Behavior/Classroom Management5
HSGER	115	Multi-Cultural Perspectives in Human Services 5
	_	Total
Fourth	Quar	ter
CMST	121	Job Communication Skills <sup>2</sup>
EDUC	232 174	Social/Emotional Development
LMLIB	115	Introduction to Library Organizational Systems <sup>5</sup> 5
2111212	110	Total
Fifth Qu	ıarte	r
EDUC	281	Education/Special Education Practicum I
LMLIB	125	School Libraries and Media Centers <sup>5</sup>
LMLIB	126	School Library Technology and Services for Curriculum
	220	Support <sup>5</sup> 3
LMLIB	220	Iechnical Services II: Cataloging <sup>5</sup>
ciuth O		10tal
FDUC	uarte	Education/Special Education Practicum II 5
EDUC I MI IB	202 135	Children's Literature and Library Services <sup>5</sup>
LMLIB	267	Cooperative Education Work Experience <sup>5</sup>
		Total
90-92 c	redite	s are required for the AAS.
CEDTIE	C A T F	•
CERTIFI	CALE	_
FIFST QL		Future Child
EDUC&	204	Exceptional Unita
EDUC	∠32 275	Learning Disabilities 5
LDUC	210	Total
Second	Оца	rter
EDUC	270	Introduction to Developmental Disabilities 5
ENGL&	101	English Composition I
HS	136	Improving Interpersonal Communication5
		Total
Third Q	uarte	21
DITC	102	Math Skills for Business 3

EDUC

HLTH	174	First Aid
		Total
45 cred	its ar	re required for the Certificate.
		I ECTIVES
CAPPS	110	Word 1
CAPPS	110	Excel 1
CAPPS	114	Access
CERTIFI	CATE	ELECTIVES
ASL&	121	Am Sign Language I
CAPPS	102	Introduction to Office 1
CAPPS	104	Beginning Windows Operating System 1
CAPPS	116	PowerPoint 1
ECED	101	Issues and Trends in Early Childhood Education 5
ECED	290	School-age Development 5
EDUC	206	Tutor Training 1
EDUC	207	Advanced Tutor Training 1
EDUC	208	Tutorial Practicum 1-2
EDUC	281	Education/Special Education Practicum I 5
EDUC	282	Education/Special Education Practicum II 5
HS	102	Introduction to Human Services 5
HS	105	Child Abuse 5
HS	277	Human Sexual Development 3
HSEAR	151	Education of the Hearing Impaired 5
HSSUB	172	Chemical Dependency in the Family 3
MATH E	LECT	IVE
BUS	102	Math Skills for Business
MATH	090	Pre-Algebra 5
<sup>1</sup> ECED	190 n	nay be substituted with PSYC 210.
<sup>2</sup> Studen	ıts tak	ing the school library media technician option may substitute
LMLII	B 266 )	for CMST 121.
<sup>3</sup> This ele	ective	requirement may be met by any course or combination of courses
approv	ved by	the program instructor.
<sup>4</sup> Techno	ology c	ourse needs to be from IS, CAPPS, GRDSN or other Internet
related	l cours	<i></i>
<sup>5</sup> Library	y scien	nce (LMLIB) courses are offered once a year. Students may take
LMLII	B cour	ses at any point in the cycle.
<sup>6</sup> MATH	1 090 d	or higher level course.
		EDUCATION PRE-MAJOR:
	Δςς	ociate in Biology Education
	-133	
	AS-	T #1 – Biology Education: SCC, SFCC

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**PROGRAM OUTLINES** 

The Associate in Biology Education (AS-T #1) degree is an articulated transfer agreement for future secondary biology teachers between community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Biology Education AS-T #1 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/social sciences—10 credits, mathematics—15 credits, science—45 credits, and 5-7 credits in additional required course(s) and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community or Spokane Falls Community College. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AS-T #1 — BIOLOGY EDUCATION

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

> Suggested Courses to Consider<sup>1</sup>..... 90-92

90-92 credits are required for the AS-T #1 – Biology Education.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **EDUCATION PRE-MAJOR: Associate in Chemistry Education**

#### AS-T #1 – Chemistry Education: SCC, SFCC

The Associate in Chemistry Education (AS-T #1) degree is an articulated transfer agreement for future secondary chemistry teachers between community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Chemistry Education AS-T #1 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to ensure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/social sciences—10 credits, mathematics—10 credits, science — 50 credits, and 5-7 credits in additional required course(s) and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AS-T #1 - CHEMISTRY EDUCATION

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### **First Quarter**

CHEM& 161	General Chem: w/Lab I
ENGL& 101	English Composition I
MATH& 151	Calculus I
	Total
Second Qua	rter
CHEM& 162	General Chem w/ Lab II
ENGL& 102	Composition II
MATH& 152	Calculus II
	Total
Third Quarte	24
CHEM& 163	General Chem w/ Lab III
MATH& 153	Calculus III <sup>1</sup>
	Education Course Requirement <sup>2</sup> 5-7
	Total15-17

#### **Fourth Quarter**

•	
CHEM& 241	Organic Chem I
CHEM& 251	Organic Chem Lab I 2
PHYS 101	General Physics <sup>3</sup>
PSYC& 100	General Psychology 5
10100 100	Total 15
	Iotal
Fifth Quart	er
CHEM& 242	Organic Chem II
CHEM& 252	Organic Chem Lab II
PHYS 102	General Physics <sup>3</sup>
	Humanities Elective
	Total
Sixth Ouart	er
CHEM& 243	Organic Chem III 3
CLIENCE 250	Organic Chem Leh III
CHEM& 253	Organic Chem Lab III 2
CMST& 101	Introduction to Communication
PHYS 103	General Physics <sup>3</sup>
	Total

90-92 credits are required for the AS-T #1 -**Chemistry Education.** 

#### EDUCATION COURSE REQUIREMENT

EDUC&	202	Intro to Education	5
EDUC	267	Cooperative Education Work Experience	2
HUMAN	ITIES	ELECTIVE	
ART	112	Non-Western Art	5
CMST	227	Intercultural Communication	5
ENGL	247	American Multicultural Literature	5
ENGL	271	World Literature to 1650	5
ENGL	272	World Literature since 1650.	5
ENGL	278	Women Writers	5
HUM	107	Introduction to Cultural Studies	5
HUM	224	Contemporary Global Cinema	5
HUM	225	Independent Film.	5
HUM	241	The Impact of the Nazi Past	5
MUSC	109	World Music	5
MUSC	124	History of Jazz	5
<sup>1</sup> MATH	I& 153	3 may be substituted with MATH 221.	

<sup>2</sup> Student may select EDUC& 202 and EDUC 267 (7cr) at SCC, or EDUC& 202 (5cr) at SFCC. These courses are required for degree. Additionally, EDUC& 204 is recommended.

## **EDUCATION PRE-MAJOR:** Associate in Elementary Education

#### Associate in Elementary Education DTA/MRP: SCC, SFCC

The Associate in Elementary Education DTA/MRP degree is an articulated transfer degree agreement for elementary education majors between the community college and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Elementary Education DTA/MRP degree. It is highly recommended that students meet with a counselor or an academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90 credits in courses numbered 100 or above. Courses must be chosen from the following distribution areas: communication—15 credits, quantitative reasoning—10 credits, humanities—15 credits, social sciences—25 credits, science—15 credits, health-related and physical education/recreational and leisure activities-5 credits, additional education courses-5-17 credits. At

<sup>&</sup>lt;sup>3</sup> PHYS 101, 102, 103 (SCC, SFCC) may be substituted with PHYS 201, 202, 203 (SFCC only).

**least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity).** At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### ASSOCIATE IN ELEMENTARY EDUCATION DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### **First Quarter**

ENGL& 101	English Composition I
	Health-Kelated/PE/Kecreational/Leisure Course <sup><math>1</math></sup> 1 Humanities Group A B or $C^2$ 5
	Social Science Group A or $B^1$
	Total
Second Qu	arter
ENGL& 102	Composition II
	Education Course Requirement <sup>3</sup>
	Health-Kelated/PE/Kecreational/Leisure Course <sup>1</sup> 1 Science Group A or $\mathbb{R}^1$
	Total
Third Ouar	ter
CMST& 101	Introduction to Communication
	Health-Related/PE/Recreational/Leisure Course <sup>1</sup> 3
	Humanities Group A, B or $C^1$
	US History
Foundly One	10tal
Fourth Qua	
	Math Series for Elementary Ed <sup>4</sup>
	Social Science Group A <sup>1</sup>
	Total
Fifth Quart	er
•	Math Series for Elementary Ed <sup>4</sup> 5
	Science Group A or B <sup>1</sup>
	Western Civilization or non-Western History5
	Total
Sixth Quar	ter
	Humanities Group A, B or C <sup>1</sup>
	Math Series for Elementary Ed <sup>4</sup>
	Total 10-15
90-97 credi	ts are required for the Associate in Elementary
Education I	DTA/MRP.

## EDUCATION COURSE REQUIREMENT

		•	
EDUC&	202	Intro to Education	5
EDUC&	204	Exceptional Child	5
EDUC	267	Cooperative Education Work Experience	2

#### MATH SERIES FOR ELEMENTARY ED

MATH	208	Mathematics for Elementary Education — A 5
MATH	209	Mathematics for Elementary Education — B 5
MATH	210	Mathematics for Elementary Education — C 5
MATH	211	Mathematics for Elementary Education I 5
MATH	212	Mathematics for Elementary Education II 5
US HIST	ORY	
HIST&	136	US History 1 5
HIST&	137	US History 2

#### WESTERN CIVILIZATION OR NON-WESTERN HISTORY

HIST&	117	Western Civilization II
HIST&	118	Western Civilization III 5
HIST	141	History of China
HIST	142	History of Japan 5
HIST&	219	Native American History5
HIST	230	Latin American History

- HIST
   240
   History of Modern Middle East
   5

   <sup>1</sup> Refer to the Associate in Elementary Education degree worksheet for list of
- approved courses and credit requirements within each distribution area.
- <sup>2</sup> Refer to the Associate in Elementary Education degree worksheet for list of approved courses and credit requirements within each distribution area. CMST 227 offered in Learning Community with ENGL& 101 at SFCC fills the Humanities Group A and ^D requirement.
- <sup>3</sup> Student may select EDUC& 202 and EDUC 267 (7cr) at SCC, or EDUC& 202 (5cr) at SFCC. These courses are required for degree. EDUC& 204 recommended, but not required.
- <sup>4</sup> Complete one series: MATH 208, 209 and 210 (15cr); or MATH 211 and 212 (10cr).

# EDUCATION PRE-MAJOR: Associate in General Science Education

## AS-T #1 – General Science Education: SCC, SFCC

The Associate in General Science Education (AS-T #1) degree is an articulated transfer agreement for future secondary general science teachers between community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in General Science Education AS-T #1 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/social sciences—10 credits, mathematics—15 credits, science—40-45 credits, 5-7 credits in additional required course(s), and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AS-T #1 — GENERAL SCIENCE EDUCATION

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### **First Quarter**

CMST& 101 ENGL& 101	Introduction to Communication English Composition I	.5 .5
	Science Group A, B, C or D <sup>1</sup>	. 5
	Total	15
Second Qua	rter	
ENGL& 102	Composition II	. 5
MATH& 151	Calculus I	. 5
	Science Group A, B, C or D <sup>1</sup>	. 5
	Total	15
Third Quarte	er	
MATH& 152	Calculus II	. 5
	Education Course Requirement <sup>2</sup>	5-7
	Science Group A, B, C or D <sup>1</sup>	. 5
	Total	-17
Fourth Quar	ter	
PSYC& 100	General Psychology	. 5 10
	Total	15

		Science Group A, B, C or D <sup>1</sup>
Sixth Q	uarte	e <b>r</b>
MATH	221	Introduction to Probability and Statistics
90-92 ci Educatio	redit on.	s are required for the AS-T #1 - General Science
EDUCAT	ION	COURSE REQUIREMENT
EDUC& EDUC	202 267	Intro to Education Cooperative Education Work Experience
HUMAN	ITIES	ELECTIVE
ART	112	Non-Western Art
CMST	227	Intercultural Communication
ENGL	247	American Multicultural Literature
ENGL	271	World Literature to 1650
ENGL	272	World Literature since 1650.
ENGL	278	Women Writers
HUM	107	Introduction to Cultural Studies
HUM	224	Contemporary Global Cinema
HUM	225	Independent Film
HUM	241	The Impact of the Nazi Past
MUSC	109	World Music
MUSC	124	History of Jazz
SCIENCE	GRO	OUP A: CHEMISTRY (15CR)
CHEM&	161	General Chem: w/Lab I
CHEM&	162	General Chem w/ Lab II
CHEM&	163	General Chem w/ Lab III
SCIENCE	GRO	OUP B: BIOLOGY (15CR)
BIOL&	221	Majors Ecology/Evolution: w/Lab
BIOL&	222	Majors Cell/Molecular: w/Lab
BIOL&	223	Majors Organismal Phys: w/Lab
SCIENCE	GRO	OUP C: PHYSICS SEQUENCE (15CR)
PHYS	101	General Physics
PHYS	102	General Physics
PHYS	103	General Physics
PHYS	201	Engineering Physics I.
PHYS	202	Engineering Physics II
PHYS	203	Engineering Physics III
SCIENCE	GRO	DUP D: GEOLOGY (10CR)
GEOL& GEOL	101 201	Intro Physical Geology The Earth Through Time
<ol> <li>Complete C, select Group 2 fer inst science</li> <li>Student 202 (50 EDUC</li> <li>BIOL&amp;</li> <li>This science</li> </ol>	te 3 o ct eith D, a 5 itutio class t may cr) at & 204 222	f the 4 groups listed. If science requirement is met using Grou er the 100 or 200 sequence. If science requirement is met usin cr approved elective is required. Students must check with tran m for specific requirements. It is recommended that sequent es be completed at one institution. • select EDUC& 202 and EDUC 267 (7cr) at SCC, or EDUC SFCC. These courses are required for degree. Additional 4 is recommended. is prerequisite for BIOL& 221 and 223.
EDU	CA	TION PRE-MAJOR: Associate in

transfer degree agreement for future secondary mathematics teachers between the community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Mathematics Education DTA degree. It is highly recommended that students meet with a

counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in courses numbered 100 or above and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication—15 credits, quantitative reasoning—25 credits, humanities—15 credits, social sciences—15 credits, science—10 credits, health-related and physical education/recreational and leisure activities-5 credits, additional required courses-5-7 credits. At least 5 credits must be W-designated (writing-intensive). At least 5 credits must be D-designated (global/diversity). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College. At SFCC, all prior college-level and grade points are transferred for calculating total credits and GPA.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### ASSOCIATE IN MATHEMATICS EDUCATION DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### **First Auartor**

inst Quarte	
ENGL& 101	English Composition I 5
MATH& 151	Calculus I 5
PSYC& 100	General Psychology 5
	Total
Second Qua	rter
ENGL& 102	Composition II
MATH& 152	Calculus II
	Humanities Group A, B or C <sup>1</sup> 5
	Total
Third Quart	er
CMST& 101	Introduction to Communication
MATH& 153	Calculus III
	Education Course Requirement <sup>2</sup> 5-7
	Total15-17
Fourth Quar	rter
MATH 220	Elementary Linear Algebra <sup>3</sup> 5
	Science Elective <sup>1</sup>
	Social Sciences Group A or B <sup>1</sup> 5
	Total
Fifth Quarte	er de la companya de
MATH& 254	Calculus IV <sup>3</sup> 5
	Humanities Group A, B or C <sup>1</sup>
	Social Sciences Group B <sup>1</sup> 5
	Total
Sixth Quarte	er
	Health-Related/PE/Recreational/Leisure Course <sup>1</sup> 5
	Humanities Group A, B or C <sup>1</sup>
	Science Elective (laboratory course) <sup>1</sup> 5
	Total
90-92 credit	s are required for the Associate in Mathematics
Education D	TA.

#### EDUCATION COURSE REQUIREMENT

EDUC&	202	Intro to Education	5
EDUC	267	Cooperative Education Work Experience	2

- <sup>1</sup> Refer to Associate in Mathematics Education degree worksheet for list of approved courses and credit requirements in each distribution area.
- <sup>2</sup> Student may select EDUC& 202 and EDUC 267 (7cr) at SCC, or EDUC& 202 (5cr) at SFCC. These courses are required for degree. Additionally, EDUC& 204 is recommended.
- <sup>3</sup> This course is offered at SFCC only.

PROGRAM OUTLINES

## EDUCATION PRE-MAJOR: Associate in Physics Education

### AS-T #2 – Physics Education: SCC, SFCC

The Associate in Physics Education (AS-T #2) degree is an articulated transfer agreement for future secondary physics teachers between community colleges and most four-year institutions within the state of Washington. This degree shall only be granted to students who have earned a cumulative grade point average of 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of education is not guaranteed to students holding an Associate in Physics Education AS-T #2 degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that the requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission. To earn this degree, students must complete a minimum of 90-92 credits in academic courses numbered 100 and meet specific distribution requirements. Courses must be chosen from the following specified distribution areas: communication-15 credits, humanities/social sciences—10 credits, mathematics—30 credits, science—30 credits, and 5-7 credits in additional required course(s) and an additional 5 recommended credits in education. At least 5 credits must be W-designated (writing-intensive). At least 30 credits must be earned from Spokane Community College or Spokane Falls Community College. At SFCC, all prior college-level credits and grade points are transferred for calculating total credits and GPA. This degree does not fulfill all general education requirements of four-year institutions.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AS-T #2 - PHYSICS EDUCATION

# See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### **First Quarter**

CHEM& MATH&	161 151	General Chem: w/Lab I
PSYC&	100	General Psychology
Second	Quar	10tal
CHEM& ENGL& MATH&	162 101 152	General Chem w/ Lab II
Third O	uarte	۲ ۲
MATH&	153	Calculus III       5         Computer Programming Course Requirement <sup>1</sup> 5         Education Course Requirement <sup>2</sup> 5-7         Total       15-17
Fourth	Ouar	ter
ENGL& MATH PHYS	102 220 201	Composition II5Elementary Linear Algebra15Engineering Physics I15Total15
Fifth Qu	arte	r
CMST& MATH& PHYS	101 254 202	Introduction to Communication.       5         Calculus IV <sup>1</sup> 5         Engineering Physics II <sup>1</sup> 5
Sivth O	uarto	IOtal
MATH PHYS	274 203	Elementary Differential Equations <sup>1</sup>
90-92 ci	redits	are required for the AS-T #2 — Physics Education.

CS255C for Engineers.5EDUCATION COURSE REQUIREMENTEDUC & 202Intro to Education5EDUC & 267Cooperative Education Work Experience.2HUMANITIES ELECTIVEART112Non-Western Art5CMST227Intercultural Communication5ENGL247American Multicultural Literature5ENGL271World Literature to 16505ENGL272World Literature since 16505

**COMPUTER PROGRAMMING COURSE REQUIREMENT** 

141 Computer Science I Java ..... 5

ENGL	278	Women Writers	5
HUM	107	Introduction to Cultural Studies	5
HUM	224	Contemporary Global Cinema	5
HUM	225	Independent Film.	5
HUM	241	The Impact of the Nazi Past	5
MUSC	109	World Music	5
MUSC	124	History of Jazz	5

<sup>1</sup> *This course offered at SFCC only.* 

CS&

<sup>2</sup> Student may select EDUC& 202 and EDUC 267 (7cr) at SCC, or EDUC& 202 (5cr) at SFCC. These courses are required for degree. Additionally, EDUC& 204 is recommended.

## ELECTRICAL MAINTENANCE AND AUTOMATION

#### AAS: SCC

Electrical maintenance and automation technicians are responsible for the maintenance, testing, repair, and/or replacement of the electrical systems and controls found in modern industrial plants and large commercial buildings.

As the electrical systems become more sophisticated, so must the skills of the electrical maintenance and automation technician. By mixing the theoretical with practical hands-on lab experiences using modern up-to-date industrial equipment and techniques, the student will be prepared for a challenging career in electrical maintenance.

Students are offered several options within the Electrical Maintenance and Automation program. They may choose to complete an AAS degree with specialized training in one of the following areas: Electrical Maintenance and Automation or Power Systems Maintenance. Electrical Trainee or Electrical Sales option certificates also are offered.

Students must maintain a 2.0 GPA in each course of the major discipline before advancing to the subsequent quarter. Students not meeting this minimum are required to repeat the deficient course before progressing. Electrical maintenance and automation courses may be taken whenever they are offered and in any sequence as long as the student has fulfilled any prerequisites or has instructor permission. This plan allows a great deal of flexibility for retraining people in industry.

Potential students should possess a mechanical aptitude, good reading comprehension skills and the ability to pass a color blindness test.

## AAS

## ELECTRICAL MAINTENANCE AND AUTOMATION

#### **First Quarter**

APLED	121	Applied Written Communication <sup>1</sup> 4
ELMT	111	Electrical Math 5
ELMT	112	Electrical Theory
ELMT	113	Safety and Tools
ELMT	114	Materials and Fasteners
MET	103	Introduction to Computers for Technology 3
		Total
Second	Qua	Total25 rter
Second ELMT	<b>Qua</b> 122	Total.         25           rter         DC Circuits.         5
<b>Second</b> ELMT ELMT	<b>Qua</b> 122 123	Total.         25           rter         DC Circuits.         5           AC Theory.         5
<b>Second</b> ELMT ELMT ELMT	<b>Qua</b> 122 123 124	Total.         25           rter         DC Circuits.         5           AC Theory.         5           Motor Maintenance.         4

85

Third	Quarter
inira	Quarter

APLED	123	Leadership Skills for Business and Industry	3
ELMT	131	Solid State	5
ELMT	132	DC Generators and Motors	4
ELMT	135	DC Motor Controls	4
ELMT	252	Transformers and Industrial Lighting	5
		Total	21
Fourth	Quar	rter	
APLED	125	Employment Preparation <sup>1</sup>	3
ELMT	133	AC Motors and Alternators	4
ELMT	134	Introduction to AC Controls	5
ELMT	241	AC Motor Controls	5
ELMT	251	National Electric Code	4
		Total	21
Fifth Q	uarte	r	
ELMT	242	Advanced AC Controls	5
ELMT	243	Introduction to Programmable Controllers	4
ELMT	253	National Electric Code - Article 430	4
ELMT	254	Programmable Controller Applications	5
ISFTY	111	Industrial First Aid	2
		Total	20

#### Sixth Ouarter

ELMT	244	Solid State Motor Controls <sup>2</sup> 4
ELMT	263	Wiring Techniques <sup>2</sup> 4
ELMT	265	Advanced Programmable Controllers <sup>2</sup>
ELMT	268	Programmable Controller Integration <sup>2</sup> 5
		Total

#### 123 credits are required for the AAS.

#### **POWER SYSTEMS MAINTENANCE**

Only students who have received prior approval from the Bonneville Power Administration are eligible for this degree option.

#### **First Quarter**

ISFTY

APLED	121	Applied Written Communication <sup>1</sup> 4
ELMT	111	Electrical Math 5
ELMT	112	Electrical Theory
ELMT	113	Safety and Tools
ELMT	114	Materials and Fasteners
MET	103	Introduction to Computers for Technology 3
		Total
Second	Qua	rter
ELMT	122	DC Circuits
ELMT	123	AC Theory
ELMT	124	Motor Maintenance 4
ELMT	262	Raceways
		Total
Third Q	uart	er
APLED	. 123	Leadership Skills for Business and Industry
ELMT	131	Solid State
ELMT	132	DC Generators and Motors
ELMT	135	DC Motor Controls 4
ELMT	252	Transformers and Industrial Lighting 5
		Total
Fourth	Quar	ter
APLED	125	Employment Preparation <sup>1</sup>
ELMT	133	AC Motors and Alternators
ELMT	134	Introduction to AC Controls
ELMT	241	AC Motor Controls
ELMT	251	National Electric Code
		Total
Fifth Qu	uarte	r
FLPT	271	Pneumatic Theory
FLPT	272	Pneumatic Math and Symbols 4
FLPT	273	Hydraulic Theory
FLPT	274	Applied Hydraulics 4

111 Industrial First Aid ..... 2 

#### **Sixth Quarter**

Cooperative Education Electives <sup>3</sup>	18
Total	18
123 credits are required for the AAS.	

#### **COOPERATIVE EDUCATION ELECTIVES**

ELMT	266	Cooperative Education Seminar	2
ELMT	267	Cooperative Education Work Experience	16
ELMT	288	Cooperative Education Work Experience	
		(No Seminar)	18
1 This w	lated	du action no quinament may be mat by any course or combinati	~

- This related education requirement may be met by any course or combination of courses approved by the instructional dean.
- <sup>2</sup> This course may be substituted with cooperative education (2 credits ELMT 266 and 16 credits ELMT 267) with department permission only. The cooperative education supervisor must approve the worksite chosen. These courses must be taken in the final quarter.
- <sup>3</sup> The cooperative education supervisor must approve the worksite chosen. ELMT 266 and 267 must be taken concurrently.

## **ELECTRICAL TRAINEE**

#### **Certificate: SCC**

The Electrical Trainee Certificate program has been designed to meet a large variety of student and electrical industry needs. The student will be required to take six of the Electrical Maintenance Technician (ELMT) core classes along with vocational-related courses. In addition to the core classes, the student may select the electrical sales option with the cooperative education work experience component or choose four additional courses from the ELMT list.

This selection will be made with the aid of professional/technical counselors, faculty or industry advisers to best meet the needs of the individual student. Students who complete the certificate requirements will be ready to seek employment as sales associates in the electrical industry or as electrical trainees and can continue to develop their electrical skills through on-the-job work experience. Students may enter the program whenever the courses are offered. It should be noted that some courses do have prerequisites. ELMT courses may be taken in any sequence providing the student has fulfilled any prerequisites or has instructor permission.

#### CERTIFICATE

#### CERTIFICATE

#### **First Quarter**

APLED	121	Applied Written Communication <sup>1</sup> 4
ELMT	111	Electrical Math
ELMT	112	Electrical Theory
ELMT	114	Materials and Fasteners
		ELMT Course Elective(s) <sup>2</sup>
		Total
Second	Qua	rter
ELMT	122	DC Circuits
ELMT	123	AC Theory
ELMT	262	Raceways
		ELMT Course Elective(s) <sup>2</sup>
		Total
Third Q	uart	er
APLED	125	Employment Preparation <sup>1</sup>
		ELMT Course Elective(s) <sup>3</sup> 16-20
		Total

#### 59-63 credits are required for the Certificate.

#### **ELECTRICAL SALES OPTION**

#### **First Quarter**

APLED	121	Applied Written Communication <sup>1</sup> 4
ELMT	111	Electrical Math 5
ELMT	112	Electrical Theory
ELMT	114	Materials and Fasteners
		ELMT Course Elective(s) <sup>2</sup>
		Total

86

#### **Second Quarter**

FIMT	120	DC Circuite
LLIVII	122	
ELMT	123	AC Theory
ELMT	262	Raceways
		ELMT Course Elective(s) <sup>2</sup>
		Total
Third O	Third Ouarter	

APLED	125	Employment Preparation <sup>1</sup>
		Cooperative Education Electives
		Total

64 credits are required for the Certificate.

#### **COOPERATIVE EDUCATION ELECTIVES**

ELMT	266	Cooperative Education Seminar
ELMT	267	Cooperative Education Work Experience 16
ELMT	288	Cooperative Education Work Experience (No Seminar) 18
<sup>1</sup> This rel	ated ed	lucation requirement may be met by any course or combination

of courses approved by the instructional dean.

<sup>2</sup> Choose one additional ELMT course.

<sup>3</sup> Choose four additional ELMT courses.

<sup>4</sup> ELMT 266 and 267 must be taken concurrently.

## ELECTRONICS ENGINEERING **TECHNICIAN**

#### AAS, Certificate: SCC

The electronics industry of today's highly technological world needs technicians prepared for the dynamic field of microcomputer-based electronic equipment maintenance. The program provides a seven-quarter, comprehensive curriculum to prepare the student to meet this need.

State-of-the art concepts are taught, as well as practical laboratory techniques, which provide the circuit analysis skills necessary for electronic technicians. Also included are studies in communication skills, computational skills and human relations skills.

Flexibility is provided to the student who chooses to receive a certificate of completion in electronics. This certificate is offered after successful completion of four specific quarters of electronics study and related courses.

The associate in applied science degree option is most advantageous in securing employment in the electronics industry. To qualify for this degree, the student must successfully complete specific electronic courses, as well as student-selected advanced electronic options for a total of seven quarters of study. The degree candidate also must successfully complete specific related courses.

The Society of Broadcast Engineers offers an add-on certificate to the Computer and Data Communications Technician AAS degree. To earn a certificate, students must take ELECT 266 and ELECT 267 during summer quarter prior to or immediately following the seventh quarter. Consult with the department chair for more details.

Prerequisites: Appropriate ASSET or COMPASS scores in math, reading and writing (or alternative courses) must be met before admission into the program is granted. Written permission of the department chair or the technical division dean may supersede requirements.

#### AAS

#### **AVIONICS**

#### **First Quarter**

ELECT	110	Computer Fundamentals for Electronics
ELECT	111	DC Ĉircuits
ELECT	112	DC Circuit Lab
ELECT	113	DC/AC Circuit Math
		Total
Second	Qua	rter
APLED	121	Applied Written Communication <sup>1</sup> 4
ELECT	121	AC Circuits
ELECT	122	AC Circuit Lab 5

ELECT 123 Advanced DC/AC Circuit Math ...... 5

#### **Third Quarter**

ELECT	134	Printed Circuit Board/Surface Mount Technology
		Design and Repair
ELECT	136	Solid State Devices/Circuits
ELECT	137	Solid State Devices/Circuits Lab
ELECT	138	Linear Devices/Circuits 5
ELECT	139	Linear Devices/Circuits Lab
		Total
Fourth	Quar	ter
ADLED	125	Employment Propagation 2
AI LED	120	
ELECT	125 211	Digital Concepts
ELECT ELECT	123 211 212	Digital Concepts Lab
ELECT ELECT ELECT	211 212 213	Digital Concepts.       5         Digital Concepts Lab.       4         Basic Computer Systems.       5
ELECT ELECT ELECT ELECT	<ul><li>125</li><li>211</li><li>212</li><li>213</li><li>214</li></ul>	Digital Concepts       5         Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4

#### **Fifth Quarter**

		-		
ELECT	221	Communication Fundamentals 5		
ELECT	222	Communication Fundamentals Lab		
ELECT	223	Advanced Computer Systems5		
ELECT	224	Advanced Computer Systems Lab 4		
		Total		

#### Sixth Ouarter

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							 	4
								5
								4
								5
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#### Seventh Quarter

-		
ELECT 245	Principles of Avionics	5
ELECT 246	Principles of Avionics Lab	1
ELECT 247	Avionics Systems 5	5
ELECT 248	Avionics Systems Lab	1
	Total	3

136 credits are required for the AAS.

#### COMPUTER AND DATA COMMUNICATIONS TECHNICIAN

#### **First Quarter**

ELECT	110	Computer Fundamentals for Electronics	2
ELECT	111	DC Circuits	7
ELECT	112	DC Circuit Lab	5
ELECT	113	DC/AC Circuit Math	5
		Total	. 19
Second	Qua	rter	
APLED	121	Applied Written Communication <sup>1</sup>	4
ELECT	121	AC Circuits	9
ELECT	122	AC Circuit Lab	5
ELECT	123	Advanced DC/AC Circuit Math	5
		Total	. 23
Third Q	uart	er	
ELECT	134	Printed Circuit Board/Surface Mount Technology	
		Design and Repair	1
ELECT	136	Solid State Devices/Circuits	5
ELECT	137	Solid State Devices/Circuits Lab	4
ELECT	138	Linear Devices/Circuits	5
ELECT	139	Linear Devices/Circuits Lab	4
		Total	. 19
Fourth	Quar	rter	
APLED	125	Employment Preparation <sup>1</sup>	3
ELECT	211	Digital Concepts.	5
ELECT	212	Digital Concepts Lab	4
ELECT	213	Basic Computer Systems	5
ELECT	214	Basic Computer Systems Lab	4
		Total	. 21
Fifth Q	uarte	r	
ELECT	221	Communication Fundamentals	5
ELECT	222	Communication Fundamentals Lab.	4
ELECT	223	Advanced Computer Systems	5
ELECT	224	Advanced Computer Systems Lab	4

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	uaru	er
ELECT	231	Advanced Communications 5
ELECT	232	Advanced Communications Lab 4
ELECT	278	RF Communications 5
ELECT	279	RF Communications Lab
		Total
Sevent	h Oua	arter
FLECT	255	Digital Data Communications 5
FLECT	256	Digital Data Communications Lab 4
FLECT	257	Wireless Communications 5
FLECT	258	Wireless Communications Lab 4
LLLCI	200	Total 18
136 cre	dits a	re required for the AAS.
FLECTR		S MAINTENANCE TECHNICIAN
Elect O		
FIRST Q	uarte	
ELECT	110	Computer Fundamentals for Electronics
ELECT	111	DC Circuits
ELECT	112	DC Circuit Lab
ELECT	113	DC/AC Circuit Math
		Total
Second	Qua	rter
APLED	121	Applied Written Communication <sup>1</sup> 4
ELECT	121	AC Circuits
ELECT	122	AC Circuit Lab
ELECT	123	Advanced DC/AC Circuit Math
LLLOI	120	Total
Third O		
	104	
ELECI	134	Printed Circuit Board/Surface Mount Technology
	100	
ELECI	136	Solid State Devices/Circuits
ELECI	137	Solid State Devices/Circuits Lab
ELECI	138	Linear Devices/Circuits
ELECT	139	Linear Devices/Circuits Lab
		Total
Fourth	Quar	ter
APLED	125	Employment Preparation <sup>1</sup>
ELECT	211	Digital Concepts
ELECT	212	Digital Concepts Lab
ELECT ELECT	212 213	Digital Concepts Lab    4      Basic Computer Systems    5
ELECT ELECT ELECT	212 213 214	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4
ELECT ELECT ELECT	212 213 214	Digital Concepts Lab    4      Basic Computer Systems    5      Basic Computer Systems Lab    4      Total    21
ELECT ELECT ELECT	212 213 214	Digital Concepts Lab    4      Basic Computer Systems    5      Basic Computer Systems Lab    4      Total    21
ELECT ELECT ELECT Fifth Q	212 213 214 <b>uarte</b> 221	Digital Concepts Lab
ELECT ELECT ELECT Fifth Q ELECT	212 213 214 <b>uarte</b> 221 222	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       Communication Fundamentals         Communication Fundamentals       5         Communication Fundamentals       4
ELECT ELECT ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 222	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       Communication Fundamentals         Communication Fundamentals Lab       4         Advanced Commuter Systems       5
ELECT ELECT ELECT ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       Communication Fundamentals         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems       4
ELECT ELECT ELECT ELECT ELECT ELECT ELECT	<ul> <li>212</li> <li>213</li> <li>214</li> </ul> <b>uarte</b> <ul> <li>221</li> <li>222</li> <li>223</li> <li>224</li> </ul>	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       Communication Fundamentals         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems       5         Advanced Computer Systems       5         Advanced Computer Systems       6
ELECT ELECT ELECT ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total       18
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b>	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       21         r       Communication Fundamentals       5         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total       18         er       14
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b>	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       21         r       Communication Fundamentals         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total       18         er       Electronics Maintenance Technician Electives <sup>2</sup> 18
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b>	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       21         r       Communication Fundamentals       5         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total       18         er       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total       18
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventt	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b>	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total       18         er       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total       18         arter       18
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Sevent	212 213 214 <b>uarte</b> 221 222 223 224 <b>uart</b> e	Digital Concepts Lab       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab       4         Advanced Computer Systems       5         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total       18         er       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Sevent	212 213 214 <b>uarte</b> 221 222 223 224 <b>uart</b> e	Digital Concepts Lab.       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total.       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab.       4         Advanced Computer Systems       5         Advanced Computer Systems       4         Total.       18         er       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> h Qua	Digital Concepts Lab.       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total.       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab.       4         Advanced Computer Systems       5         Advanced Computer Systems       4         Total.       18         er       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         Total.       18
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>h Qua</b>	Digital Concepts Lab.       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total.       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab.       4         Advanced Computer Systems       5         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total.       18         er       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Base       18         Total.       18         Total.       18         Total.       18
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>h Qua</b> dits a	Digital Concepts Lab.       4         Basic Computer Systems       5         Basic Computer Systems Lab       4         Total.       21         r       21         communication Fundamentals       5         Communication Fundamentals Lab.       4         Advanced Computer Systems       5         Advanced Computer Systems       5         Advanced Computer Systems Lab       4         Total.       18         er       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Electronics Maintenance Technician Electives <sup>2</sup> 18         Total.       18         arter       18         Base       18         Arter       18         Arter       18         Total.       18         Total.       18         Total.       18         Total.       1
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First O	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> dits a ICATE	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> dits a <b>iCATE</b> <b>uarte</b> 110	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>dits</b> a <b>iCATE</b> <b>uarte</b> 110	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>dits</b> a <b>iCATE</b> <b>uarte</b> 110 111	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>h Qua</b> <b>dits</b> a <b>ICATE</b> 110 111 112 112	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>dits</b> a <b>iCATE</b> 110 111 112 113	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>h Qua</b> <b>dits a</b> <b>ICATE</b> 110 111 112 113	Digital Concepts Lab. 4   Basic Computer Systems 5   Basic Computer Systems Lab 4   Total. 21   r Communication Fundamentals   Communication Fundamentals Lab. 4   Advanced Computer Systems 5   Advanced Computer Systems Lab 4   Total. 18   er Electronics Maintenance Technician Electives <sup>2</sup> Electronics Maintenance Technician Electives <sup>2</sup> 18   Total. 18   arter Electronics Maintenance Technician Electives <sup>2</sup> Electronics Maintenance Technician Electives <sup>2</sup> 18   Total. 18   arter Electronics Maintenance Technician Electives <sup>2</sup> Computer Fundamentals for Electronics 2   DC Circuits 7   DC Circuit Lab 5   DC/AC Circuit Math 5
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT ELECT	212 213 214 uarte 221 222 223 224 uuarte h Qua dits a ICATE 110 111 112 113	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>uarte</b> <b>dits</b> a <b>iCATE</b> 110 111 112 113	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>h Quarte</b> <b>h Qua</b> 110 111 112 113 <b>Qua</b> 121 121	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT Second APLED ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>h Quarte</b> <b>h Qua</b> 110 111 112 113 <b>Qua</b> 121 121 121 122	Digital Concepts Lab
ELECT ELECT ELECT ELECT ELECT ELECT ELECT Sixth Q Seventi 136 cre CERTIF First Q ELECT ELECT ELECT ELECT ELECT ELECT ELECT ELECT ELECT	212 213 214 <b>uarte</b> 221 222 223 224 <b>h Quarte</b> <b>h Qua</b> 110 111 112 113 <b>Qua</b> 121 121 122 123	Digital Concepts Lab. 4   Basic Computer Systems 5   Basic Computer Systems Lab 4   Total. 21   r Communication Fundamentals   Communication Fundamentals Lab. 4   Advanced Computer Systems 5   Advanced Computer Systems Lab 4   Total. 18   er Electronics Maintenance Technician Electives <sup>2</sup> Electronics Maintenance Technician Electives <sup>2</sup> 18   Total. 18   arter Electronics Maintenance Technician Electives <sup>2</sup> Electronics Maintenance Technician Electives <sup>2</sup> 18   Total. 18   orter 18   orter 18   orter 18   orter 19   rter Applied Written Communication <sup>1</sup> AC Circuit Lab 5   Advanced DC/AC Circuit Math 5

#### Third Quarter

ELECT	134	Printed Circuit Board/Surface Mount Technology
		Design and Repair 1
ELECT	136	Solid State Devices/Circuits 5
ELECT	137	Solid State Devices/Circuits Lab 4
ELECT	138	Linear Devices/Circuits 5
ELECT	139	Linear Devices/Circuits Lab 4
		Total
Fourth	Quar	ter
APLED	125	Employment Preparation <sup>1</sup>
ELECT	211	Digital Concepts
ELECT	212	Digital Concepts Lab 4
ELECT	213	Basic Computer Systems 5
ELECT	214	Basic Computer Systems Lab 4
		Total

#### 82 credits are required for the Certificate.

- <sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the department chair or the technical education division dean.
- <sup>2</sup> Sixth quarter select 18 credits from electronics, electrical maintenance and automation, or hydraulic and pneumatic automation. Seventh quarter select 18 credits from electrical maintenance and automation, or hydraulic and pneumatic automation. May be substituted with any related course or combination of courses approved by the department chair or the technical education division dean.

## EMERGENCY MEDICAL TECHNICIAN (PARAMEDIC)

#### **AAS, Certificate: SCC**

This program is for personnel who provide advanced emergency care under a supervising physician through direct radio communication and written standing orders. Applicants must be individuals with at least one year of prior experience as an EMT–Basic or EMT–Intermediate and have completed two quarters of college level anatomy and physiology (HED 108, 109) with a 2.0 grade or better within the last five years prior to acceptance into the program. It is strongly recommended that students complete BIOL& 241 and 242 prior to entering the Emergency Medical Technician (Paramedic) program. Additional admission requirements are listed on the attached student requirement sheet. Students may complete the four-quarter certificate requirements in Emergency Medical Technician–Paramedic, or complete the required certificate courses and the additional arts and sciences course requirements to receive an AAS degree. A 2.0 grade or better must be maintained in all classes.

For an AAS degree, students must complete 20 credits of required courses and seven credits of department approved electives numbered 100 or above in addition to the one-year certificate curriculum. Students may enroll in arts and sciences courses either preceding or following the four-quarter certificate curriculum. A 2.0 grade or better must be maintained in all classes.

#### AAS

BIOL&	160	General Biology w/Lab <sup>1</sup>	. 5
BIOL&	241	Human A & $P I^1$	. 5
BIOL&	242	Human A & P 2 <sup>1</sup>	. 5
ENGL&	101	English Composition I <sup>1</sup>	. 5
		Optional Electives to consider <sup>2</sup>	. 7
		Total	27
First Qu	ıarte	r	
APLED	112	Applied Mathematics	. 3
LIFE	131	Advanced Life Support I	14
		Total	17
Second	Qua	rter	
APLED	123	Leadership Skills for Business and Industry	. 3
LIFE	132	Advanced Life Support II	15
		Total	18
Third Q	uart	er	
LIFE	133	Advanced Life Support III	18
		Total	18

#### **Fourth Quarter**

LIFE	134	Advanced Life Support IV	21
		Total	21
101 cre	edits a	re required for the AAS.	

#### CERTIFICATE

#### **First Quarter**

APLED	112	Applied Mathematics
LIFE	131	Advanced Life Support I 14
		Total
Second	Qua	rter
APLED	123	Leadership Skills for Business and Industry 3
LIFE	132	Advanced Life Support II 15
		Total
Third Q	uarte	er
LIFE	133	Advanced Life Support III
		Total
Fourth	Quar	ter
LIFE	134	Advanced Life Support IV
		Total

#### 74 credits are required for the Certificate.

<sup>1</sup> These courses must be completed within a five year period preceding or following the 4-quarter certificate curriculum with a 2.0 grade or better.

<sup>2</sup> Optional electives to consider: ENGL& 102, computer, speech, math/science, chemistry for a total of 7 credits. These courses must be completed within a five year period preceding or following the 4-quarter certificate curriculum with a 2.0 grade or better.

## **ENGINEERING PRE-MAJOR**

#### AS-T #2 — Bioengineering and Chemical pre-Engineering, AS-T #2 — Computer and Electrical pre-Engineering, AS-T #2 — Mechanical/Civil/Aeronautical/Industrial pre-Engineering: SFCC

Engineering is the profession in which knowledge of the mathematical and natural sciences, gained by study, experience and practice, is applied to economically use the materials and forces of nature for the benefit of society.

The two-year program at SFCC is intended to prepare the student for transfer to a four-year engineering college at the junior level. The following curriculum outline is designed to meet most lower-division requirements of various engineering disciplines and should be used as a guide to obtain an Associate of Science Transfer Track 2 (AS-T #2) degree in Engineering. This degree requires 5 writing intensive credits ("W") and a design component. The "W" requirement can be met in several courses and the design component can be met with various ENGR courses.

# INDIVIDUAL CONSULTATION WITH AN ENGINEERING ADVISER IS STRONGLY ENCOURAGED.

#### AS-T #2 — BIOENGINEERING AND CHEMICAL PRE-ENGINEERING

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### **First Quarter**

CHEM& 161 MATH& 151	General Chem: w/Lab I
Second Quar	rter
CHEM& 162	General Chem w/ Lab II 5
CS 255	C for Engineers
MATH& 152	Calculus II
	Total
<b>Third Quarte</b>	er
BIOL& 160 CHEM& 163	General Biology w/Lab

#### MATH& 153 Calculus III ..... 5 **Fourth Quarter** ENGL& 101 English Composition I......5 **Fifth Quarter** CHEM& 241 Organic Chem I ..... 3 Organic Chem Lab I ..... 2 CHEM& 251 PHYS Program Electives: Bioengineering/Chemical<sup>1</sup> .... 5-10 Sixth Quarter CHEM& 242 Organic Chem II ...... 3 CHEM& 252 PHYS 202 Program Electives: Bioengineering/Chemical<sup>1</sup> . . . . 0-5 **Seventh Quarter** MATH 274 Elementary Differential Equations ...... 5 PHYS 203 Engineering Physics III ..... 5

and Chemical pre-Engineering.

#### AS-T #2 — COMPUTER AND ELECTRICAL PRE-ENGINEERING

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### First Quarter

CHEM8 Math8	z 161 - 151	General Chem: w/Lab I
1012 111 10	¢ 101	Program Electives: Computer/Electrical <sup>1</sup>
		Total 15-18
Second	l Qua	rter
CS&	141	Computer Science I Java <sup>3</sup> 5
ENGR	190	Electronic Logic
MATH&	z 152	Calculus II
-		Iotal
	tuart 140	er
C5 ENCL	142	English Composition I
MATH	7 153	Calculus III 5
	. 100	Program Electives: Computer/Electrical <sup>1</sup> 0-5
		Total
Fourth	Quar	ter
		Required Humanities Course <sup>2</sup> 5
		Required Social Science Course <sup>2</sup> 5
		Total
Fifth Q	uarte	r
ECON&	z 201	Micro Economics 5
MAIH	220	Elementary Linear Algebra
РПІЗ	201	Program Electives: Computer/Electrical <sup>1</sup> 0-5
		Total
Sixth O	uarte	er
PHYS	202	Engineering Physics II
		Program Electives: Computer/Electrical <sup>1</sup> 10
		Total
Sevent	h Qua	arter
ENGR	210	Electric Circuit Theory 5
MATH	274	Elementary Differential Equations 5
PHYS	203	Engineering Physics III 5
100 11-		10tal
100-113 Electric	o cred	its are required for the AS-I #2 – Computer and
Electric	ai pro	e-engineering.

89

AS-T #2 PRE-FN	2 — N Igini	IECHANICAL/CIVIL/AERONAUTICAL/INDUSTRIAL EERING	ENG Mat
See tran	sfer	legree requirements in the Transfer Program Outlines	MAT
ection	of th	is catalog.	MAI
irst Qu	uarte		<sup>1</sup> Cor
THEM&	t 161	General Chem: w/Lab 1	exi
VIAINQ	: 131	Program Electives: Mechanical/Civil/Aero/Indust <sup>1</sup>	<sup>2</sup> See but
Second	0	10tal 15-18	³ GU
		rter	
LHEM& TS	255	C for Engineers 5	
MATH&	: 152	Calculus II	
		Total	Am
hird Q	uart	er	of ca
ENGR	103	Engineering Graphics/CAD5	is co
MATH&	: 153	Calculus III	ogy,
		Required Social Science Course <sup>2</sup>	relat
	_	Total	Stud
ourth	Quar		eync
ICON&	101	Iviacro Economics	and
MOL0	101	Required Humanities Course <sup>2</sup> 5	role
		Total	and
ifth Oı	uarte	٠	Con
INGR	201	Statics	spec
/ATH	220	Elementary Linear Algebra 5	AA-
PHYS	201	Engineering Physics I 5	See
		Total	sect
ixth Q	uarte	er	
NGR	202	Dynamics	
PHYS	202	Engineering Physics II	90 o
		Program Electives: Mechanical/Civil/Aero/Indust <sup>1</sup> 5	1 Cc
	h <b>A</b>	10tdi	to
NCP	202	Mechanics of Materials	
/ATH	203	Flementary Differential Equations 5	
PHYS	203	Engineering Physics III	
		Program Electives: Mechanical/Civil/Aero/Indust <sup>1</sup> 0-5	Stuc
		Total	trair
05-113	cred	lits are required for the AS-T #2 – Mechanical/	mac
civil/Ae	erona	utical/Industrial pre-Engineering.	face,
ROGR	AM EI	LECTIVES: BIOENGINEERING/CHEMICAL	of th
CHEM&	z 243	Organic Chem III	State
CHEM&	253	Organic Chem Lab III 2	Prog
NGL&	235	Technical Writing	■ S
INGK	110 111	Engineering Problems and Orientation	tł
NGR	201	Statics 5	b
NGR	202	Dynamics	e
NGR	203	Mechanics of Materials	∎ U
NGR	210	Electric Circuit Theory 5	p
/ATH	220	Elementary Linear Algebra 5	Phy
/ATH&	254	Calculus IV	
ROGR	AM E	LECTIVES: COMPUTER/ELECTRICAL	■ P
CS	211	C for Programmers 5	
S	253	Object-Oriented Programming with C++	= N
INGL&	235	Iecnnical Writing	■ 1V
INGK NCP	110 201	Statics 5	CER
NGR	201	Dvnamics	Firs
/ATH	221	Introduction to Probability and Statistics	COS
/ATH&	254	Calculus IV	COS
ROGR		LECTIVES: MECHANICAL/CIVIL/AERO/INDUST	ISFT
CHEM&	t 163	General Chem w/ Lab III	101 1
ENGL&	235	Technical Writing	Sec
INGR	110	Engineering Problems and Orientation	COS
INGR	111	Engineering Projects 2	COS

ENGR /IATH	210 221	Electric Circuit Theory    5      Introduction to Probability and Statistics    5	
/ATH	225	Foundations of Mathematics	
/ATH&	254	Calculus IV	
Concul	tation	with the angineering advicer is strongly recommended for	

- ultation with the engineering adviser is strongly recommended for ses specific to student's choice of transfer institution and discipline code.
- AS-T #2 worksheet for a list of approved transfer courses in this distrion area.
- and WSU prefer a 'C' language programming course rather than Java.

## **ENGLISH PRE-MAJOR AA-DTA: SCC, SFCC**

or in English provides an excellent background for a wide variety ers. The student should realize that a major or minor in English sidered desirable for such courses of study as pre-law, psycholurnalism, TV-radio, advertising, human relations, history, public ns, or teaching.

nts are provided with opportunities to improve their communicand critical skills. Writing courses provide practical experience in tory, creative and technical writing. The objective of all literature imanities classes is to create an awareness and appreciation of the literature by examining and analyzing the historical, structural tistic development of the works.

It a counselor or academic adviser for recommended courses c to student's choice of transfer institution.

#### ГA

ansfer degree requirements in the Transfer Program Outlines n of this catalog.

Suggested Co	ourses to Con	sider <sup>1</sup>	9	0
Total			9	0

#### edits are required for the AA-DTA.

ult a counselor or academic adviser for recommended courses specific *udent's choice of transfer institution.* 

## ESTHETICIAN

#### **Certificate: SCC**

nts enrolling in the Esthetician Certificate program will receive g in all phases of skin care. Emphasis will be on the use of facial nes; temporary hair removal; various types of facial treatments; eck, and hand massage techniques; and all safety and sanitation res involved with these processes. Upon successful completion coursework, the student will be prepared to take the Washington Examination in Esthetics.

im Requirements:

- dents must maintain a 2.1 in all professional classes to complete program and pass exit exams with a minimum score of 2.5 to prepared to take the Washington State licensing examination of netics.
- on successful completion of the coursework, the student will be pared to take the Washington State Examination in Esthetics.

al Requirements:

- mal or corrected vision
- sical dexterity, i.e., small object manipulation
- st be able to work with arms at shoulder level for extended periods ime
- st be able to sit or stand for extended periods of time

#### FICATE

#### Quarter

Second	l Qua	rter
		Total
ISFTY	111	Industrial First Aid
COS	127	Advanced Esthetics Concepts1
COS	124	Esthetics Applications I
COS	123	Esthetics Concepts I

COS	125	Esthetics Concepts II
COS	126	Esthetics Applications II <sup>1</sup> 10

# PROGRAM OUTLINES

#### 

#### 33 credits are required for the Certificate.

<sup>1</sup> COS 126 may be substituted with COS 288, with permission of instructor. Washington State Licensure requirements allow up to 10% of the student academic instruction to be met at an off campus-site.

## EXPANDED FUNCTION DENTAL AUXILIARY

### **Certificate: SCC**

A two-quarter program designed to prepare the student for employment as an Expanded Function Dental Auxiliary to the dentist.

This program is designed for the dental assistant or dental hygienist who has graduated from a school that is accredited by the American Dental Association, Commission on Dental Accreditation (CODA) or has successfully completed the Dental Assisting National Board examination or a Licensed Dental Hygienist. The program will cover content that will prepare the student to pass both a written and a clinical examination to become a Washington State, Expanded Function Dental Auxiliary (EFDA). Students upon passing the examinations can seek licensure to become EFDAs.

The course will include the evaluation of the student's ability to perform identified skills under the dentist's general supervision to include: patient oral health instruction, coronal polishing, fluoride treatments, sealants, expose, process and mount dental radiographs, knowledge of dental morphology, pharmacology, emergencies, risk management as related to dental charting, health history alerts, and temporization.

Students will cover content which focuses on the didactic, laboratory and clinical components of the amalgam and composite curriculum to include: armamentarium including various matrices, classification of restorations, components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindication; placement and finishing of composites, placement condensing and carving of amalgams; evaluation of restoration; and occulusal adjustment.

The course will cover content on the didactic and laboratory components of taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications.

Admission Recommended/Required:

- Dental Assisting National Board Current Certification Card and/ or Certificate or Degree from a Dental Assisting or Dental Hygiene program that is accredited by the American Dental Association, Commission on Dental Accreditation (CODA).
- Computer skills recommended
- Active email account required
- Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter.
- Students may repeat an advanced dental assisting course once, but it must be repeated within two years.

#### CERTIFICATE

#### **First Quarter**

DENT	141	EFDA Review Class 5
DENT	142	FFDA Review Lab 2
DENT	144	EEDA Amalaam Baatam tiana
DENT	144	EFDA Amaigam Restorations
DENT	145	EFDA Amalgam Lab 4
DENT	148	EFDA Amalgam Clinical 3
		Total
Second	Qua	rter
DENT	151	EFDA Composite Restorations
DENT	152	EFDA Composite Lab
DENT	154	EFDA Composite Clinical
DENT	155	EFDA Impressions/Provisional
DENT	158	EFDA Impressions/Provisional-Lab
DENT	160	EFDA Exam Preparation 3
		Total
34 cred	its ar	e required for the Certificate.

## **FASHION MERCHANDISING**

#### AAS: SFCC

Fashion Merchandising is a two-year program designed to prepare both men and women for a career in the retail merchandising field. Professional courses stress the fashion concept as it applies to apparel and nonapparel merchandise, as well as a thorough understanding of buying, promotion and inventory systems.

#### First Quarter

AAS

FMDSE FMDSE	111 150	Fashion Merchandising Seminar <sup>1</sup> 1      Principles of Retail Merchandising5
FMDSE	155	Fashion Trends
FMDSE	224	Principles of Retail Promotion <sup>2</sup> 5
MMGT	181	Leadership Training-DEC <sup>3</sup> 1
		Total
Second	Qua	rter
FMDSE	112	Fashion Merchandising Seminar <sup>1</sup> 1
FMDSE	152	Professional Development in Business <sup>3</sup> 2
FMDSE	160	Merchandise Presentation
FMDSE	180	Retail Sales Techniques 3
MMGT	182	Leadership Training-DEC <sup>3</sup> 1
		Required or Elective Courses
		Total
Third Q	uart	er
FMDSE	113	Fashion Merchandising Seminar <sup>1</sup> 1
FMDSE	201	Fashion Fabrics
FMDSE	210	Merchandising Management 5
MMGT	183	Leadership Training-DEC 1
		Required or Elective Courses
		Total
Fourth	Quar	ter
		Required or Elective Courses
		Total
Fifth Qu	uarte	r
		Required or Elective Courses 15
		Total
Sixth Q	uarte	24
		Required or Elective Courses

#### 

#### **ELECTIVES - GROUP A BUSINESS**

BUS&

101

ACCT&	201	Prin of Accounting I
ACCT&	202	Prin of Accounting II
BT	101	Keyboarding
BUS	100	Money Management 3
BUS	103	Basic Business Math and Electronic Calculators 5
BUS&	201	Business Law
BUS	217	Business Statistics
BUS	280	Human Relations in Business
CAPPS	102	Introduction to Office 1
CAPPS	110	Word 1
CAPPS	112	Excel 1
CAPPS	114	Access
ECON&	201	Micro Economics
ECON&	202	Macro Economics
IS	120	Business Computer Use
MMGT	101	Principles of Management
MMGT	231	Human Resource Management 5
MMGT	270	Conference Preparation Techniques 1-5
ELECTIV	ES - C	GROUP B
ART	105	Color and Design 5
FMDSE	161	Merchandise Trends
REQUIR	ED CO	DURSES
BT	107	Business Communications
BT	272	Business Correspondence

#### CMST& 101 Introduction to Communication......5 MMGT 211 Marketing...... 5

- <sup>1</sup> *Required of all first-year students.*
- <sup>2</sup> FMDSE 224 may be substituted with MMGT 218.
- <sup>3</sup> May be substituted with elective from Group A or Group B.
- <sup>4</sup> Choose a minimum of 15 credits from Group A. May be substituted with merchandising seminars or other business courses approved by the fashion merchandising coordinator. These courses are to be taken throughout the two-year program.
- <sup>5</sup> Choose a minimum of 8 credits from Group B. May be substituted with any interior design or art course approved by the fashion merchandising coordinator. These courses are to be taken throughout the two-year program.
- <sup>6</sup> BT 107 and 108 may be substituted with ENGL& 101.
- <sup>7</sup> FMDSE 267 must be taken concurrently with FMDSE 111, 112 or 113.

## **FIRE OFFICER**

#### AAS: SCC

The Fire Officer program is designed to enhance the technical and general education of the volunteer and career firefighter. The program builds on the basic fire service information which allows the firefighter to gain the knowledge and understanding of information required for work at the officer level within the fire service. Students are given a good educational foundation which is coupled with a broad spectrum of technical information that will help them perform the duties of a fire officer within their jurisdiction. The degree is targeted to current firefighters or fire officers.

#### AAS

Total	97-98
Work Based Learning Courses	15
Second Year	
First Year	50
Electives <sup>1</sup>	6-7

#### 97-98 credits are required for the AAS.

#### **ELECTIVES**

FOD	205	Fire Investigation
FOD	206	Fire Inspection and Codes 4
<b>FIRST YE</b>	AR	
CHEM&	: 110	Chemical Concepts w/Lab5
CIS	110	Introduction to Computer Applications5
CMST&	101	Introduction to Communication5
CMST	227	Intercultural Communication
ENGL&	101	English Composition I
ENGL&	102	Composition II
MATH	201	Introduction to Finite Mathematics
PHYS	100	Introductory Physics
PSYC&	100	General Psychology
SOC&	101	Intro to Sociology
SECOND	YEA	R
FOD	101	Fire Officer IA
FOD	103	Fire Officer IB
FOD	110	Fire Service Leadership 3
FOD	131	Fire Service Instructor I
FOD	133	Fire Service Instructor II
FOD	140	Fire Service Incident Safety Officer
FOD	201	Fire Officer IIA
FOD	203	Fire Officer IIB
FOD	210	Incident Management-Multi-Company Operations 3
WORK B	ASED	LEARNING COURSES
FOD	102	Fire Officer IA Work Based Learning

FOD	104	Fire Officer IB Work Based Learning	3
FOD	132	Fire Service Instructor II Work Based Learning	3
FOD	202	Fire Officer IIA Work Based Learning	3
FOD	204	Fire Officer IIB Work Based Learning.	3

<sup>1</sup> May be substituted with any course or combination of courses approved by the department chair.

## FIRE SCIENCE TECHNOLOGY

#### AAS: SCC

The Fire Science Technology program is designed to prepare students for entry-level careers as firefighters for municipal, industrial, state and federal fire departments. The primary mission of the Fire Science Technology program is identification and mitigation of emergencies in order to preserve life and property.

A 2.0 grade or better must be maintained in all courses required for a degree.

Graduation Requirements:

Emergency Medical Technician-Basic. EMT is a condition of graduation and must be obtained by the sixth quarter. This can be accomplished by taking LIFE 128 and LIFE 129 or by providing proof of certification from an outside agency. EMT certification must be submitted with petition to graduate.

#### AAS **First Quarter**

BUS ENGL& FS	103 101 100	Basic Business Math and Electronic Calculators <sup>1</sup> 5         English Composition I.       5         Orientation to Fire Science <sup>2</sup> 2         Computer Elective       5         PE Elective <sup>3</sup> 1
	_	Total
Second	Qua	rter
CMST& FS	101 152	Introduction to Communication
Third Q	uart	er
ENGL& FS	102 177	Composition II5Wildland Fire Operations3PE Elective <sup>3</sup> 1Science Elective5Speech Elective5Total19
Fourth	Quar	ter
FS FS FS FS	170 211 212 233	Hazardous Materials I
Fifth Qu	uarte	r
FS FS FS	105 221 222	Principles of Hydraulics.       4         Intermediate Fire Science       4         Fire Science Applications II.       6         PE Elective <sup>3</sup> .       1         Total.       15
	uarte 160	Eiro Tantino 2
FS FS FS	231 232	Advanced Fire Science.       4         Fire Science Applications III       6         Cooperative Education Electives.       3         PE Elective <sup>3</sup> .       1         Total.       17
99 cred	its aı	re required for the AAS.
СОМРИ	TFR F	
CATT	120	Microsoft Word I

CATT	120	Microsoft Word I.	 1-2.5
CATT	121	Microsoft Word II	 1-2.5
CATT	122	Microsoft Access I	 1-3
CATT	123	Microsoft Access II	 1-2.5
CATT	138	Microsoft Excel I	 1-2.5
CATT	139	Microsoft Excel II	 2.5
CATT	190	Introduction to PowerPoint	 1-2.5
CATT	191	Advanced PowerPoint	 2.5
CIS	110	Introduction to Computer Applications	 5

COOPER	RATIV	E EDUCATION ELECTIVES
FS	266	Cooperative Education Seminar
FS	267	Cooperative Education Work Experience
FS	288	Cooperative Education Work Experience (No Seminar) 3
PE ELEC	TIVE	
AQUAT	136	Aquatic Fitness1
CJ	132	Criminal Justice Physical Training1
CJ	133	Criminal Justice Physical Training
CJ	241	Criminal Justice Physical Training1
CJ	242	Criminal Justice Physical Training
CJ	243	Criminal Justice Physical Training1
PE	106	Yoga Fitness 1
PE	117	Kickboxing 1
PE	139	Weight Training 1
PE	185	Beginning Aerobic Fitness 1
PE	186	Fast Fitness, Beginning 1
PE	187	Cross Training
PE	206	Yoga Fitness 1
PE	217	Kickboxing 1
PE	239	Weight Training 1
PE	285	Advanced Aerobic Fitness
PE	286	Fast Fitness, Advanced
PE	287	Cross Training
SCIENC	E ELE	CTIVE
BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2 5
CHEM&	z 110	Chemical Concepts w/Lab 5
CHEM	115	Environmental Chemistry w/Lab 5
GEOG	260	The Violent Earth 5
HFD	108	Human Anatomy 5

	100	funding second sec	2
HED	109	Human Physiology and Disease	5
PHYS	100	Introductory Physics	5
SPEECH	ELEC	TIVE	
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
1 0110 4	~ ~		~

<sup>1</sup> BUS 103 may be substituted with MATH 100 or MATH 107 or any 100 level math course approved by the department.

<sup>2</sup> First year pre-entry fire science students only. This course is offered fall quarter only. Students who are currently affiliated with a fire department will enroll in FS 266 and 267 in lieu of FS 100.

 $^{\rm 3}\,$  The same physical education course may be repeated up to six times.

<sup>4</sup> This course is offered winter quarter only.

<sup>5</sup> FS 266 and 267 must be taken concurrently.

<sup>6</sup> This course is offered spring quarter only.

## FIRE SCIENCE TECHNOLOGY (AAS-T) AAS-T: SCC

The Fire Science Technology program is designed to prepare students for entry-level careers as firefighters for municipal, industrial, state and federal fire departments. The primary mission of the Fire Science Technology program is identification and mitigation of emergencies in order to preserve life and property.

This AAS-T degree is transferable to some four-year institutions. Students interested in transfer should contact the SCC transfer office or the Fire Science program instructor for a list of four-year institutions that have agreed to accept this degree.

A 2.0 grade or better must be maintained in all courses required for a degree. EMT is a requirement by the end of the fifth quarter. This can be accomplished by taking LIFE 128 and LIFE 129 or by providing proof of certification from an outside agency.

#### AAS-T

#### **First Quarter**

	Total	B
	PE Elective	1
MATH& 107	Math in Society <sup>3</sup>	5
FS 100	Orientation to Fire Science <sup>2</sup>	2
ENGL& 101	English Composition I <sup>1</sup>	5
CMST& 101	Introduction to Communication <sup>1</sup>	5

#### Second Quarter

CHEM& FNGI &	: 110	Chemical Concepts w/Lab
FS	152	Building Construction <sup>4</sup>
	102	Humanities Elective (Group B or $C)^5$ 5
		PF Flective (Gloup D of C)
		Total
Third O	uart	er
CMST	227	Intercultural Communication <sup>1</sup>
FS	177	Wildland Fire Operations <sup>4</sup> 3
НІТН	101	Health and Wellness <sup>6</sup>
PHYS	100	Introductory Physics <sup>1</sup> 5
	100	PE Elective
		Total
Fourth	Quar	ter
FS	105	Principles of Hydraulics
FS	211	Introduction to Fire Science
FS	212	Fire Science Applications I
FS	233	Professional Development
		Total
Fifth Qu	ıarte	r
FS	170	Hazardous Materials I <sup>7</sup> 3
FS	220	Fire Protection Systems <sup>7</sup> 2

ii Quaite	·
170	Hazardous Materials I <sup>7</sup> 3
220	Fire Protection Systems <sup>7</sup> 2
221	Intermediate Fire Science <sup>7</sup> 4
222	Fire Science Applications II <sup>7</sup> 6
	Humanities Elective "W" (Group A, B or C) <sup>5</sup> 5
	Total
h Ouarte	5 <b>k</b>

#### Sixt

FS FS

109 crec	109 credits are required for the AAS-T.					
		Total				
		PE Elective				
		Cooperative Education Elective				
FS	232	Fire Science Applications III				
FS	231	Advanced Fire Science				
FS	160	Fire Tactics				
-						

#### **COOPERATIVE EDUCATION ELECTIVE**

FS	266	Cooperative Education Seminar
FS	267	Cooperative Education Work Experience
FS	288	Cooperative Education Work Experience (No Seminar) 3
PE ELEC	TIVE	
AQUAT	136	Aquatic Fitness
CJ	132	Criminal Justice Physical Training
CJ	133	Criminal Justice Physical Training
CJ	241	Criminal Justice Physical Training
CJ	242	Criminal Justice Physical Training1
CJ	243	Criminal Justice Physical Training
PE	106	Yoga Fitness 1
PE	117	Kickboxing 1
PE	139	Weight Training 1
PE	185	Beginning Aerobic Fitness1
PE	186	Fast Fitness, Beginning 1
PE	187	Cross Training
PE	206	Yoga Fitness 1
PE	217	Kickboxing 1
PE	239	Weight Training 1
PE	285	Advanced Aerobic Fitness 1
PE	286	Fast Fitness, Advanced
PE	287	Cross Training 2
<sup>1</sup> This co	urse r	nay be substituted with any related course or combination of
courses	s appro	oved by the instructional dean.
<sup>2</sup> First ye	ear pre	e-entry fire science students only. This course is offered in fall
quarter	r only.	
J INIS M	uth co ourse	urse requirement may be met by any transferable college level

<sup>4</sup> This course is offered winter quarter only.

<sup>5</sup> Refer to AA degree requirements.

- <sup>6</sup> HLTH 101 may be substituted with HLTH 104.
- <sup>7</sup> *EMT is a requirement by the end of the fifth quarter.*

<sup>8</sup> FS 266 and 267 must be taken concurrently.

<sup>9</sup> This course is offered winter quarter only.

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#### AAS, Certificate: SCC

The field of environmental horticulture pertains to floriculture, landscape design and maintenance, and greenhouse and nursery management. This program provides a study of ornamental plant materials, plant propagation and retail sales of cut flowers and potted plants. At the completion of the second year, the student may receive the associate in applied science degree.

The Floral Certificate provides a study of floral arrangement techniques and retail sales methods of cut flowers and potted plants. Students must enter in the fall quarter in order to finish the 3-quarter sequence of floral design classes. Employment potential includes floral designer, greenhouse manager, retail sales manager, etc.

Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program adviser or department chair when planning classes.

#### AAS

#### **First Quarter**

Second Quarter				
	Total			
APLED 112	Applied Mathematics <sup>1</sup> 3			
AGHRT 211	Floral Design Techniques 5			
AGHRT 171	Agricultural Leadership Training 1			
AGHRT 116	Green Industry Business Management 5			
AGHRT 103	Introduction to Greenhouse and Nursery Production . 3			

#### Second Quarte

AGHRT 105	Horticultural Retail Sales	. 3
AGHRT 111	House Plants	. 5
AGHRT 126	Computer Essentials for Environmental Sciences	. 2
AGHRT 212	Floral Design Applications	. 5
	Total	15
Third Quarte	er	
AGGEN 151	Shop Skills	. 4
AGHRT 173	Agricultural Leadership Training	. 1
AGHRT 213	Retail Floristry	. 5
APLED 121	Applied Written Communication <sup>1</sup>	. 4
	Total	14
Fourth Quar	rter	
AGHRT 104	Principles of Pest Management	. 5
AGHRT 106	Greenhouse and Nursery Management I	. 5
AGHRT 195	Practicum <sup>2</sup>	. 3

#### 

#### **Fifth Quarter**

ENVS

AGHRT	107	Greenhouse and Nursery Management II	. 5
AGHRT	240	Practicum - Floral Design Projects 1	3
BUS	280	Human Relations in Business	5
ENVS	110	Plant Biology	. 5
		Total	18
Sixth Q	uarte	r -	
AGHRT	108	Greenhouse and Nursery Management III	. 4
AGHRT	230	Plant Problem Diagnosis	5

		Total	9
MMGT	205	Small Business Planning	5
AGHRT	241	Practicum - Floral Design Projects 2	3
AGHRT	232	Pest Management Project	2

#### 101 credits are required for the AAS.

#### CERTIFICATE

#### 

#### Second Quarter

AGHRT 105	Horticultural Retail Sales
AGHRT 111	House Plants
AGHRT 126	Computer Essentials for Environmental Sciences 2
AGHRT 212	Floral Design Applications
	Total
Third Quarte	er
AGGEN 151	Shop Skills
AGHRT 173	Agricultural Leadership Training
AGHRT 213	Retail Floristry
APLED 121	Applied Written Communication <sup>1</sup>

#### 46 credits are required for the Certificate.

<sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

<sup>2</sup> *Practicum may be taken anytime during the second year.* 

## FOREIGN LANGUAGE PRE-MAJOR

#### AA-DTA: SCC, SFCC

Knowledge of foreign languages makes possible direct contact with the literature and culture of other lands, contributing to international understanding. It is essential both from the standpoint of the traditionally recognized humanistic value and its central position in today's internationally oriented business and diplomatic world. Language offerings include: American Sign Language, Chinese, French, German, Japanese (SFCC only), Russian (SFCC only), Salish and Spanish.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	•	•	•	•	·	•	•	1	9	0	
Total	_	_	_	_		_	_	C		n	

#### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## FRONT OFFICE PROFESSIONAL

#### **Certificate: SCC**

The Front Office Professional program is a three-quarter program preparing students for entry-level positions. Students completing this program are prepared to greet callers, make and receive telephone calls in a professional way, format correspondence and reports, and perform a variety of duties depending on the office situations.

### CERTIFICATE

#### **First Quarter**

BT	101	Keyboarding	5
BT	105	Basic Grammar for Business II	5
BT	151	Business Student Preparation	5
		Total	5
Second	Qua	rter	
BT	102	Document Processing <sup>1</sup>	5
BT	109	Business Communications	5
BUS	103	Basic Business Math and Electronic Calculators <sup>2</sup>	5
CATT	102	Introduction to Outlook	.5
		Total	.5
Third Q	uart	er	
BT	160	Job Preparation Techniques	3
BT	165	Word Processing.	5
BT	231	Office Procedures	5
MMGT	223	Customer Service	3
		Total 1	6

#### 48.5 credits are required for the Certificate.

<sup>1</sup> Keyboarding proficiency of 30 wpm for three minutes with no more than six errors is a prerequisite for BT 102.

<sup>2</sup> BUS 103 may be substituted with BT 128.

## **GEOGRAPHY PRE-MAJOR**

#### AA-DTA: SCC, SFCC

Geography is an all-encompassing discipline that seeks to understand the world—both its physical and its cultural features—through an understanding of place, location, and spatial relationships. It studies where things are and how they got there. Physical geographers may study weather and climate, water resources, the creation and evolution of landforms, or the distribution of plants, animals and soils. Cultural geographers focus on different aspects of how humans inhabit the earth. They may study the origin and spatial patterns of language groups, religions, ethnicities, agricultural practices or urban land use. Other geographers specialize in creating maps, which includes both traditional maps and computerized mapping known as Geographic Information Systems (GIS). The key skill of all geographers is the ability to geographically analyze the world around us: knowing not just where things are located, but"how" and "why."

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

#### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **GEOLOGY PRE-MAJOR**

#### AA-DTA, AS-T #1: SCC, SFCC

Geology is the study of the Earth, its landforms, and formative processes. Geology involves both field-based and laboratory-based research and is one of the most interdisciplinary of the sciences because it involves virtually all the scientific disciplines to understand and solve problems related to the Earth. Geologists study a wide variety of Earth features and processes from the identification of minerals and rocks to the processes of their formation. Geoscientists are also involved with mapping the Earth utilizing a wide range of field and laboratory-based methods including remote sensing via satellites. Geologists are involved in the study of hazards associated with volcanism, earthquakes, flooding, and slope stability. Geologists work closely with engineers in the development of large construction projects as well as the environmental cleanup and remediation associated with various types of waste disposal. Geologists research Earth's ancient past including the evolution of the continents and oceans, life, the atmosphere and climate change. Finally, they study, explore, and manage a wide array of water, energy, and mineral resources that are critical to modern societies.

Career and employment opportunities for geologists are quite varied. A four-year or graduate-level degree in geology can lead to careers in science education at the K-12 and collegiate levels as well as research in a variety of subdisciplines such as volcanology, marine geology, paleon-tology, seismology, tectonics, mineralogy, hydrology, soils, engineering geology, and geologic hazards. Earth science careers within industry include natural resource exploration and development (minerals and energy), and numerous options in the field of environmental assessment and remediation. Public agency positions for geoscientists range from local to city and county, to the state and federal levels. Students with geology degrees can go on to work in the fields of Parks and Outdoor Recreation as park rangers, guides, and interpretive professionals. Consult a counselor or academic adviser for recommended courses specific to the student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses t	o Consider <sup>1</sup>	
Total		90

90 credits are required for the AA-DTA.

#### AS-T #1

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### 90 credits are required for the AS-T #1.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## GERONTOLOGY PARAPROFESSIONAL

#### AAS, Certificate: SFCC

Spokane Falls Community College offers a program designed to provide specific training to individuals who wish to establish a career in meeting the needs of a rapidly expanding older population. The Gerontology program examines mental, emotional, physical and social changes, which confront older adults. Gerontology is distinct from geriatrics, a medical specialty that explores health and disease in elders. Some of the current career fields may include program management, administration, recreation services, residential care, business and education fields and human service programs related to life after sixty.

An AAS degree and a certificate option are available. The associate in applied science degree prepares students for employment. The one-year certificate program is an option for those who have another degree and wish to increase their gerontology skills. Education in gerontology may be used as a support base for many helping professions. This area of study is also a resource for launching second and third careers.

#### AAS

#### **First Quarter**

HS HS HSSUB	102 136 131	Introduction to Human Services.5Improving Interpersonal Communication.5Survey of Chemical Dependency.3Approved Elective or any HS, HSGER, HSSOC, HSSUB.5
		Total
Second (	Quai	rter
HS	105	Child Abuse 5
HSGER ( HSGER (	101 250	Introduction to Social Gerontology
		Total
Third Qu	iarte	er
ENGL&	101	English Composition I
		Total
Fourth Q	)uar	ter
HSGER 2	110 281	Leisure, Learning, and Living
		Total
Fifth Qua	arte	r
HSGER 2 HSGER 2	210 282	Aging and Mental Health
Sixth Ou	iarte	
HSGER 2	283	Practicum III
91-93 cre	edits	are required for the AAS

#### 91-93 credits are required for the AAS

#### CERTIFICATE

Students working toward a certificate of completion in gerontology must choose and complete a specified 30 credit sequence of courses and 10 credits of practicum in the gerontology program, consulting individually with a gerontology instructor before planning the total program.

BUS	102	Math Skills for Business
ENGL&	101	English Composition I 5
HS	136	Improving Interpersonal Communication5

HSGER 101	Introduction to Social Gerontology
HSGER 110	Leisure, Learning, and Living
HSGER 115	Multi-Cultural Perspectives in Human Services 5
HSGER 201	Aging and Personality
HSGER 250	Death, Loss and Grief
HSGER 281	Practicum I
HSGER 282	Practicum II
	Total
48 credits ar	re required for the Certificate.
APPROVED E	LECTIVE OR ANY HS, HSGER, HSSOC, HSSUB
BUS 100	Money Management
BUS 115	Budgeting Skills
BUS 180	Travel and Tourism
BUS 185	Travelography: Destinations for Business and Tourism 3
BUS 191	Job Success
CAPPS 102	Introduction to Office
CMST 121	Job Communication Skills 2-5
ECED 100	Basic Child Care Training
EDUC 270	Introduction to Developmental Disabilities 5
FMT 112	Exercise and Aging 3
FMT 209	Exercise and the Cardiovascular System 5
GENST 154	Introduction to Service Learning 2-5
HLTH 101	Health and Wellness 3
HLTH 174	First Aid
PSYC& 100	General Psychology5
PSYC 210	Conception through Adolescent Developmental
	Psychology 5
MATH ELECT	IVE
BUS 102	Math Skills for Business 3
CMST 121	Job Communication Skills 2-5
MULTI-CULTU	JRAL PERSPECTIVES OR AGING ELECTIVE
HSGER 115	Multi-Cultural Perspectives in Human Services 5
HSGER 201	Aging and Personality
SOCIAL POLI	CY OR TREATMENT THEORIES ELECTIVE
HS 115	Social Policy
HSSOC 115	Social Policy
HSSOC 221	Treatment Theories in Human Services
<sup>1</sup> Select BLIS	102 and CMST 121 or other MATH course as approved by
department a	chair.

## **GRAPHIC DESIGN**

#### **AAS, Certificate: SFCC**

The two-year Graphic Design program is an intensive course of study that prepares students for entry-level jobs in design studios, advertising agencies, corporate in-house design departments and other businesses which use computers to create design, advertising and promotional pieces. Standards match job requirements that range from technical production abilities to high-level creative conceptualizing. The program consists of a project-oriented curriculum that incorporates industry design problems and projects to demonstrate student learning. Courses in design process and design technology interact to deliver the skills necessary to successfully complete specific design projects. Students assemble project portfolios that are reviewed by the design faculty.

With strong guidance from a local advisory committee of professional designers, the program is constantly updated with the goal of placing students in entry-level design jobs. Throughout the program there is ample opportunity for students to interact with professionals via field trips, guest lecturers, adjunct faculty and the Internet. At the end of the second year there is portfolio organization, internships, resume preparation and job-placement assistance. Although the Graphic Design program is oriented to the print medium, students are introduced to web design and multi-media design.

#### AAS

#### **First Quarter**

GRDSN 101	Design Process I	3
GRDSN 102	Design Technology I.	3
GRDSN 103	Design Projects I	1

GRDSN 105	Drawing for Graphic Designers	. 2
GRDSN 109	History of Design	. 4
GRDSN 156	Illustrator I	. 2
GRDSN 172	Dreamweaver	. 2
	Total	17
Second Qua	rter	
ART 105	Color and Design	. 5
GRDSN 111	Design Process II	. 3
GRDSN 112	Design Technology II	. 3
GRDSN 113	Design Projects II	. 1
GRDSN 115	Drawing for Communication	. 2
GRDSN 158	PhotoShop I	. 2
GRDSN 163	InDesign I	. 2
	Total	18
Third Quarte	er	
BUS 102	Math Skills for Business	3
ENGL 105	Pro/Tech: Basic Writing	5
GRDSN 121	Design Process III	3
GRDSN 122	Design Technology III	. 3
GRDSN 123	Design Projects III	. 1
GRDSN 125	Computer Drawing	. 2
	Total	17
Fourth Quar	ter	
GENST 109	Applied Critical Thinking	3
GRDSN 126	Web Production	2
GRDSN 201	Design Process IV	3
GRDSN 202	Design Technology IV	. 3
GRDSN 203	Design Projects IV	. 1
GRDSN 204	Design Lab IV	. 2
	SFCC Graphic Design Suggested Electives	. 3
	Total	17
Fifth Quarte	r	
GRDSN 142	Print Production	2
GRDSN 211	Design Process V	3
GRDSN 212	Design Technology V	3
GRDSN 213	Design Projects V	. 1
GRDSN 214	Design LabV	. 2
GRDSN 235	Multimedia Technology I	. 3
HS 136	Improving Interpersonal Communication	. 5
	Total	19
Sixth Quarte	er	
GRDSN 221	Design Process VI	3
GRDSN 223	Design Projects VI	2
GRDSN 224	Design Lab VI	2
GRDSN 266	Cooperative Education Seminar	1
GRDSN 267	Cooperative Education Work Experience	3-5
	SFCC Graphic Design Suggested Electives <sup>1</sup>	3-5

102-106 credits are required for the AAS.

#### CERTIFICATE

#### **3-D ANIMATION CERTIFICATE**

This certificate is designed as an introduction to 3-D animation technologies and projects. The courses provide students with fundamental skills as they relate to 3-D animation. Students are assigned industry related projects and exercises.

		Total
PHOTO	126	Digital Photography I 5
GRDSN	240	3-D Modeling and Animation III 3
GRDSN	239	3-D Modeling and Animation II
GRDSN	238	3-D Modeling and Animation I 3
ART	106	3-D Design 4

18 credits are required for the Certificate.

#### **GRAPHIC DESIGN SURVEY CERTIFICATE**

This certificate is designed as an introduction to graphic design technologies and projects. The courses provide students with fundamental skills as they relate to graphic design and advertising. Students are assigned industry related projects and exercises.

CRDSN 101	Design Technology I
GRDSN 102	Design fectiliology I
GRDSN 105	Drawing for Graphic Designers
GRDSN 109	History of Design
	SFCC Graphic Design Suggested Electives
	Total

#### 14 credits are required for the Certificate.

#### **MULTIMEDIA CERTIFICATE**

This certificate is designed as an introduction to multimedia technologies and projects. The courses provide students with fundamental skills as they relate to multimedia and animation. Students are assigned industry related projects and exercises.

	Total	5
GRDSN 239	3-D Modeling and Animation II	3
GRDSN 238	3-D Modeling and Animation I	3
GRDSN 236	Multimedia Technology II	3
GRDSN 235	Multimedia Technology I	3
GRDSN 171	Flash	2
GRDSN 160	Director	2

16 credits are required for the Certificate.

#### WEB DESIGN CERTIFICATE

This certificate is designed as an introduction to web design technologies and projects. The courses provide students with fundamental skills as they relate to web design. Students are assigned industry related projects and exercises.

GRDSN 126	Web Production 2
GRDSN 158	PhotoShop I 2
GRDSN 167	Fireworks 2
GRDSN 172	Dreamweaver 2
GRDSN 235	Multimedia Technology I 3
GRDSN 236	Multimedia Technology II 3
IS 126	Internet Publishing
	Total

#### 16 credits are required for the Certificate.

#### SFCC GRAPHIC DESIGN SUGGESTED ELECTIVES

ART&	100	Art Appreciation
ART	101	Fundamentals of Drawing
ART	102	Drawing Composition
ART	103	Drawing Techniques
ART	104	Perspective Drawing
ART	105	Color and Design
ART	106	3-D Design
ART	110	Modern Art
ART	112	Non-Western Art
ART	130	Sculpture
ART	151	Calligraphy 3
ART	188	Acrylic Painting
ART	189	Printmaking 4
ART	190	Printmaking Relief
ART	191	Screen Printing
ART	192	Printmaking, Intaglio
ART	193	Lithography (Printmaking) 4
ART	202	Figure Drawing
BT	160	Job Preparation Techniques
BT	272	Business Correspondence 5
BUS&	101	Intro to Business
BUS	108	eBusiness 2
CMST&	101	Introduction to Communication
CMST	121	Job Communication Skills 2-5
ENGL&	101	English Composition I
ENGL&	102	Composition II
ENGL&	235	Technical Writing
ENGL&	236	Creative Writing I 5
GRDSN	126	Web Production 2
GRDSN	131	Publication Design 1
GRDSN	235	Multimedia Technology I 3
GRDSN	236	Multimedia Technology II 3
GRDSN	237	Multimedia Technology III 3

			07
GRDSN	238	3-D Modeling and Animation I 3.	91
GRDSN	239	3-D Modeling and Animation II	
GRDSN	240	3-D Modeling and Animation III	ŝ
HS	238	Group Effectiveness Training	Z
HUM	141	Introduction to Film	
MMGT	211	Marketing5	N
PHOTO	101	Introduction to Photography5	
PHOTO	112	Photographic Design	Æ
PHOTO	126	Digital Photography I 5	Я
PHOTO	132	Advanced Black and White Photography 3	õ
SBM	101	How to Start a Small Business 5	Р
SBM	105	Targeting Your Market 2	

<sup>1</sup> Any applicable graphic designed self-paced software course(s) and art studio course(s) as approved by the department chair.

## **GREENHOUSE-NURSERY**

#### AAS, Certificate: SCC

The field of environmental horticulture pertains to floriculture, landscape design and maintenance, and greenhouse and nursery management. This program provides a study of ornamental plant materials, plant propagation, and nursery and greenhouse management methods. Employment potential includes greenhouse manager, nursery manager, retail sales manager and plant propagator.

At the completion of the second year, the student may receive the associate in applied science degree.

Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program adviser or department chair when planning classes.

#### First Quarter

AAS

AGHRT         103           AGHRT         110           AGHRT         126           AGHRT         171           AGHRT         171           AGHRT         211           APLED         112	Introduction to Greenhouse and Nursery Production1 3         Fall Landscape Plant Materials1       5         Computer Essentials for Environmental Sciences1       2         Agricultural Leadership Training1       1         Floral Design Techniques1       5         Applied Mathematics2       3
Coronal Ora	10tal
AGHRT 111 AGHRT 116 APLED 121 ENVS 110	House Plants <sup>3</sup>
	Total
Third QuartAGHRT104AGHRT105AGHRT112AGHRT173ENVS210	er Principles of Pest Management <sup>4</sup>
Fourth Out	10tal
AGGEN 151 AGHRT 102 AGHRT 106 AGHRT 204	Shop Skills <sup>1</sup>
	Total
Fifth QuarterAGHRT107AGHRT202AGHRT219BUS280	Greenhouse and Nursery Management II <sup>3</sup> 5 Principles of Irrigation <sup>3</sup>
Sixth Quart	er
AGHRT 108	Greenhouse and Nursery Management III <sup>4</sup> 4

AGHRT 195 Practicum<sup>5</sup>...... 3

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OUTLINES	
PROGRAM	

AGHRT	230	Plant Problem Diagnosis <sup>4</sup>	5
AGHRT	232	Pest Management Project <sup>4</sup>	2
MMGT	205	Small Business Planning <sup>4</sup>	5
		Total	9
113 cred	its a	re required for the AAS.	
CERTIFI	CATE		
First Qu	arte	r	
AGHRT	103	Introduction to Greenhouse and Nursery Production <sup>1</sup>	3
AGHRT	110	Fall Landscape Plant Materials <sup>1</sup>	5
AGHRT	126	Computer Essentials for Environmental Sciences <sup>1</sup>	2
AGHRT	171	Agricultural Leadership Training <sup>1</sup>	1
AGHRT	211	Floral Design Techniques <sup>1</sup>	5
APLED	112	Applied Mathematics <sup>2</sup>	3
		Total	9
Second	Qua	rter	
AGHRT	111	House Plants <sup>3</sup>	5
AGHRT	116	Green Industry Business Management <sup>3</sup>	5
APLED	121	Applied Written Communication <sup>2</sup>	4
ENVS	110	Plant Biology <sup>3</sup>	5
		Total	9
Third Qu	uarte	<b>)</b> r	
AGHRT	104	Principles of Pest Management <sup>4</sup>	5
AGHRT	105	Horticultural Retail Sales <sup>4</sup>	3
AGHRI	112	Spring Landscape Plant Materials <sup>4</sup>	5
AGHKI	1/3	Agricultural Leadership Iraining*	I
EINVO	210		0 0
57 ere 15	<b>.</b>	Ivial	9
o/ credi	ts are	e required for the Certificate.	

<sup>1</sup> These courses may be offered fall quarter only.

<sup>2</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

<sup>3</sup> These courses may be offered winter quarter only.

<sup>4</sup> These courses may be offered spring quarter only.

<sup>5</sup> Practicum may be taken at any time during the second year.

## HEALTH INFORMATION TECHNOLOGY

#### AAS: SCC

This AAS degree program is accredited by the American Health Information Management Association (AHIMA) and the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) and prepares students for employment in maintaining and processing health information in hospitals, nursing facilities, ambulatory care clinics and health insurance agencies. Training in a realistic work environment include managing computer databases, coding and abstracting clinical data, quality control management of information, health-related legal principles and policies, and knowledge of the Health Insurance Portability and Accountability Act (HIPAA) regulations. Upon completion of the program, students are eligible to take the Registered Health Information Technician (RHIT) certification exam offered by (AHIMA).

Each required course for graduation in the first year of the curriculum must be completed with a 2.0 grade or better before proceeding to the second year of the curriculum. A 2.0 grade or better must be maintained in all courses required for a degree. All HIT courses must be completed within five years.

Prerequisite/Admission Requirements:

- High School diploma or GED certificate
- Physical examination
- Keyboarding skills (Microsoft or basic computing)
- Appropriate scores in one of the following: ASSET or COMPASS

Students desiring a course of study leading to an associate of arts degree should consult the college catalog for the specific degree requirements. The AA degree is recommended for students who may consider continuing their education in health information management or administration.

## AAS

First (	Quarter
---------	---------

FIISL QU	aite	
HED	108	Human Anatomy 5
HIT	104	Introduction to Health Information
HIT	125	Medical Terminology 5
HIT	160	Computer Theory in Health Information 3
		Total
Second	Qua	rter
BUS	103	Basic Business Math and Electronic Calculators 5
HED	109	Human Physiology and Disease
HIT	101	Health Record Systems
HIT	161	Health Management Information Systems 3
		Total
Third Q	uart	er
ENGL&	235	Technical Writing
HIT	129	Pathophysiology
HIT	135	Comparative Record Systems 4
HIT	162	Electronic Health Record: Meditech
		Total
Fourth	Quar	rter
HIT	105	Legal Concepts in Health 3
HIT	145	Pharmacology
HIT	203	Clinical Practice
HIT	209	Health Data Analysis and Display 5
HIT	212	Acute Care Coding
		Total
Fifth Qu	uarte	r
HIT	208	Health Information Management
HIT	211	Quality Improvement
HIT	214	Ambulatory Care Coding 5
HIT	250	Management and Supervision in Health Organizations.3
		Total
Sixth Q	uarte	er de la companya de
HIT	213	Clinical Practice
HIT	216	Reimbursement Strategies for HIM Professionals 5
HIT	218	Advanced Medical Coding 5
HIT	240	HIT Clinical Seminar 2
		Total 18

103 credits are required for the AAS.

## HEALTH UNIT COORDINATOR

#### AAS, Certificate: SCC

This program offers a one-year certificate with an optional AAS degree and prepares students for a profession working a hospital or long-term care facility. Students learn to coordinate between physicians, patients and hospital staff, utilize and maintain computer record systems, and manage communications within a healthcare unit. Upon completion of the program, students are eligible to take the national Certified Health Unit Coordinator (CHUC) certification exam offered by the National Association of Health Unit Coordinators (NAHUC).

Admission Requirements:

- High school diploma or GED certificate
- Appropriate scores in ASSET or COMPASS
- Keyboarding skills (Microsoft or basic computing)
- Ability to perform under stress
- Physical exam

Any exceptions to the admission requirements must be approved by the program director and the dean of instruction for health and environmental sciences.

Each required course in the first and second quarter must be completed with a 2.0 grade or better before proceeding to the third quarter. All professional coursework must be completed within a five-year period. Students must maintain a 2.0 grade or better in all courses before a certificate is awarded

The student may complete requirements in Health Unit Coordinator and receive a certificate, or complete the professional requirements plus liberal arts requirements and receive an associate in applied science degree. The student may enroll in liberal arts either preceding or following the professional curriculum. Students enrolling in liberal arts the first year must make formal application to the Health Unit Coordinator program during the first year.

For an associate in applied science degree, the student must complete 20 credit hours of required courses and 25 credit hours of department approved electives numbered 100 or above in addition to the one-year professional curriculum.

## . . .

AAS		
BUS&	101	Intro to Business
ENGL&	101	English Composition I
PSYC&	100	General Psychology
		Ontional Flectives To Consider <sup>1</sup> 25
		Sociology Elective
	-	lotal
First Qu	iarte	r
BUS	103	Basic Business Math and Electronic Calculators 5
CMST	127	Leadership Development 3
HIT	160	Computer Theory in Health Information
HUC	104	Introduction to Health Information
HUC	108	Human Anatomy 5
		Total
Second	Oua	rter
LIED	122	Ethics and Professionalism in Health
	1.02	Line the Management in frequencies of the former of the fo
HII	161	Health Management Information Systems
HUC	101	Health Record Systems
HUC	120	Introduction to Health Unit Coordinator Procedures 2
HUC	125	Medical Terminology
		Total
Third Q	uart	er
HED	126	Introduction to Study of Disease
HIT	162	Electronic Health Record: Meditech
HUC	105	Legal Concepts in Health
HUC	127	Health Unit Coordinator Procedures 5
HUC	145	Pharmacology 3
HUC	152	Unit Coordinator Practicum 3
1100	102	Total 20
101 crea	dits a	re required for the AAS.
		-
CERTIFI	CATE	
First Qu	ıarte	r
BUS	103	Basic Business Math and Electronic Calculators 5
CMST	127	Leadership Development 3
HIT	160	Computer Theory in Health Information
HUC	104	Introduction to Health Information
HUC	108	Human Anatomy 5
		Total
Second	Oua	rter
HED	132	Ethics and Professionalism in Health 2
HIT	161	Health Management Information Systems
HIC	101	Health Record Systems
HIC	120	Introduction to Health Unit Coordinator Procedures
HUC	120	Medical Terminology
HUC	123	
		IUlai
Third Q	uart	er
HED	126	Introduction to Study of Disease
HIT	162	Electronic Health Record: Meditech
IIIC	105	Level Company in Health

		Total	 •••	20
HUC	152	Unit Coordinator Practicum	 	. 3
HUC	145	Pharmacology	 	. 3
HUC	127	Health Unit Coordinator Procedures	 	. 5
HUC	105	Legal Concepts in Health	 	. 3

#### 56 credits are required for the Certificate.

#### **OPTIONAL ELECTIVES TO CONSIDER**

BUS	280	Human Relations in Business
CMST&	101	Introduction to Communication
CMST	227	Intercultural Communication
HUC	266	Cooperative Education Seminar 1-2

HUC MMGT	267 101	Cooperative Education Work Experience 1-18 . Principles of Management
SOCIOL	OGY E	LECTIVE
SOC&	101	Intro to Sociology
SOC	211	Marriage and the Family 5

<sup>1</sup> Or any departmentally approved elective numbered 100 or above.

# HEALTH, PHYSICAL EDUCATION AND **RECREATION PRE-MAJOR**

#### AA-DTA: SCC, SFCC

The Physical Education department offers a wide variety of activity and professional courses which will allow two major program options:

- A pre-professional program in Health, Physical Education and Recreation which is aimed at meeting the needs of those students wishing to transfer to four-year institutions to complete requirements for bachelor degrees in physical education and recreation.
- Provide credit, non-credit and community service programs for all students wishing to secure instruction, formal practice and expertise in a variety of recreational, physical education and leisure time activities

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Total.					_	_	_			_	_	 	_	_	_	_	_	_	_	_	_	_	_	_	9(	1
Suggested	Co	bui	rse	s t	O	С	ò	ns	sic	lei	r1.														9(	)

#### 90 credits are required for the AA-DTA.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **HEALTH/FITNESS TECHNICIAN**

#### AAS: SFCC

The Health/Fitness Technician program is a two-year professional technical curriculum offered at Spokane Falls Community College. This program is designed for students who are looking toward a career in the health/fitness industry. Students who complete the two-year program and receive an associate in applied science degree (AAS) can enter the job market immediately. Students interested in transferring to a four-year college can utilize an articulation agreement with Eastern Washington University. This agreement allows students the option of transferring directly into the Exercise Science program at EWU. Students should meet with their adviser to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

Certification for fitness professionals, with its emphasis on safety, reliability and high standards, is required in most fitness facilities. The HFT program prepares students for the National Strength and Conditioning Association's personal trainer exam. The NSCA-CPT exam is the only accredited personal trainer exam in the nation. SFCC is a host site for this national exam in June and December each year.

The HFT program provides instruction in professional areas such as exercise physiology, anatomical kinesiology, sports nutrition, care and prevention of injuries, functional training, personal training, health screening, and exercise prescription. Related courses include stress management, therapeutic massage, first aid/ CPR and exercise for older adults.

Students interested in athletic training can work with experienced college trainers. Students can gain valuable experience working with a wide variety of sports and athletes.

## AAS

#### **First Quarter**

BUS	102	Math Skills for Business 3	,
FMT	204	Health Appraisal and Exercise Prescription5	,
HLTH	174	First Aid	,
		HFT Suggested Electives <sup>1</sup> 5	,
		Total	

Second	l Qua	rter
BIOL&	160	General Biology w/Lab
CMST&	z 101	Introduction to Communication
FMT	106	Anatomical and Physiological Kinesiology 5
		Total
Third Q	Quart	er
BIOL&	241	Human A & P 1
FMT	111	Physiology of Exercise
FMT	115	Leadership Dynamics
		HFT Suggested Electives 3
		Total
Fourth	Quar	rter
BIOL&	242	Human A & P 2 5
FMT	209	Exercise and the Cardiovascular System
FMT	219	Injury Prevention and Rehabilitation
PE	187	Cross Training 2
		Total
Fifth Q	uarte	r
ENGL&	z 101	English Composition I
FMT	119	Principles of Strength Training 5
HLTH	104	Stress Management 3
PE	270	Nutrition for Fitness
		Total
Sixth Q	)uarte	er
FMT	112	Exercise and Aging
FMT	225	Personal Training 5
PE	266	Cooperative Education Seminar
PE	267	Cooperative Education Work Experience
		Total
90 crec	lits a	re required for the AAS.
HFT SU	GGES <sup>.</sup>	TED ELECTIVES
ANTH&	z 100	Survey of Anthropology
BUS&	101	Intro to Business
HIST&	116	Western Civilization I 5
HLTH	101	Health and Wellness 3
MATH8	& 107	Math in Society 5
PE	186	Fast Fitness, Beginning 1
PE	187	Cross Training
PE	239	Weight Training

ΡE 286 Fast Fitness, Advanced. ..... 1 PE PSYC& 100 General Psychology......5 SBM 101 How to Start a Small Business ..... 5 SOC& 101 <sup>1</sup> HFT students have the flexibility of taking most courses offered at SFCC for

their electives. However, students are asked to get approval from the HFT advisor prior to scheduling any electives.

## **HEARING INSTRUMENT SPECIALIST**

## AAS, Certificate: SFCC

Spokane Falls Community College offers a two-year program to prepare hearing instrument specialists for immediate employment in hearing health care establishments. The program includes study in physiology and anatomy, social science and technical hearing instrument courses. The Hearing Instrument Specialist program is primarily an online low residency program, meaning students complete coursework online with occasional meetings on-campus to verify skills and competencies.

Hearing instrument specialists find a variety of professional experiences available to them, including independent contracted employment, professional consulting, establishment ownership and technical support of related professions. After successful completion of the program, all educational requirements of the state (Washington State Department of Health) will have been satisfied, pursuant to state licensing as a duly authorized"Hearing Instrument Fitter/Dispenser."

Non-Local Students: Students who reside in Spokane have weekly on-campus labs. Students who live outside of the Spokane area work with mentors who are licensed hearing instrument dispensers. These mentors assist the students in weekly lab activities. Close communication between the mentor, student and faculty is important in order for a student to succeed in this challenging program.

Admission Requirements:

- Out of state students please refer to the tuition of "non-resident with waiver" section of web catalog.
- Ability to attend six on campus three-day sessions.
- Student must have secured a mentoring site if unable to make daily commute to college.
- Completion of HIS enrollment packet found at www.spokanefalls. edu/ĥis

### AAS

## Eirst Quartor

FIIST QU	aite	
ENGL&	101	English Composition I
HIS	101	Basic Hearing Instrument Sciences
HIS	104	Hearing Physiology and Anatomy 4
HIS	106	Healthcare and Business Ethics 4
		Total
Second	Qua	rter
HIS	123	Basic Audiometrics
HIS	125	Auditory Disorders
HIS	127	Hearing Healthcare Management I
		Math Elective
		Total
Third Q	uarte	er
HIS	134	Advanced Audiometrics
HIS	136	Hearing Instrument Technologies 4
HIS	138	Ear Couplers and Assistive Technologies5
		Communication Elective
		Total
Fourth	Quar	ter
HIS	201	Hearing Healthcare Management II
HIS	206	Hearing Instrument Specialist Laboratory I 4
HIS	250	Perspectives on Disabilities
		Total
Fifth Qu	ıarte	r
HIS	210	Clinical Methods I 5
HIS	213	Marketing/Sales
HIS	215	Hearing Instrument Specialist Laboratory II5
		Total
Sixth Q	uarte	er
HIS	205	Introduction to Speech-Language Pathology and
		Audiology
HIS	222	Clinical Methods II
HIS	266	Cooperative Education Seminar 1
HIS	267	Cooperative Education Work Experience
		Total
97 credi	its ar	e required for the AAS.
CERTIFI	CATE	

## **First Quarter**

HIS	101	Basic Hearing Instrument Sciences
HIS	104	Hearing Physiology and Anatomy 4
HIS	106	Healthcare and Business Ethics
		Total
Secon	d Qua	rter
HIS	123	Basic Audiometrics
HIS	125	Auditory Disorders
HIS	127	Hearing Healthcare Management I
HIS	213	Marketing/Sales
		Total
Third	Quarte	er
HIS	134	Advanced Audiometrics
HIS	138	Ear Couplers and Assistive Technologies
HIS	266	Cooperative Education Seminar
HIS	267	Cooperative Education Work Experience
		Total
	11.	

43 credits are required for the Certificate.

PROGRAM OUTLINES

#### **COMMUNICATION ELECTIVE**

BUS	280	Human Relations in Business 5
HS	136	Improving Interpersonal Communication5

#### MATH ELECTIVE

BUS	103	Basic Business Math and Electronic Calculators	5
MATH	100	Vocational Technical Mathematics	5
MATH&	107	Math in Society	5

## **HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION**

#### AAS: SCC

Completion of the two-year Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) program at Spokane Community College prepares the student for an entry-level position in one of the most challenging occupations available.

Entry-level HVAC/R technicians typically work on residential and light commercial systems performing equipment installations, preventative maintenance, and service and repair functions. Opportunities also are available in systems design and sales.

Areas of study include basic HVAC/R systems, electricity, heating, local gas and oil codes, load calculations, cooling, refrigeration, duct design, and troubleshooting. These skills are taught from lab applications coordinated with classroom theory and actual jobsite experience.

#### AAS

#### First Quarter

AIRC AIRC	113 114	Math for HVAC Technicians       5         Principles of Electricity       8
AIRC	117	Theory of Heat Transfer
C	0	10tal
<b>Бесопа</b>		
AIRC	110	Fundamentals of Heating and Machanical Systems
AIRC API ED	120	Applied Written Communication
APLED	121	Employment Preparation
		Total
Third O	uarte	er
AIRC	137	Heating Systems Servicing and Troubleshooting 7
AIRC	201	Refrigeration Fundamentals
ISFTY	111	Industrial First Aid 2
		Total
Fourth	Quar	rter
AIRC	202	Thermodynamics of Refrigeration <sup>1</sup>
AIRC	263	System Servicing and Troubleshooting of Air
		Conditioners <sup>1</sup> 7
-16/1 - 0		lotal
Fifth Q	uarte	۲ <b></b>
AIRC	125	Sheet Metal Layout and Fabrication
AIRC	246	A Cil Llasting Systems
AIRC	247 249	Hydronic Heating Systems 7
7 mile	21)	Total
Sixth O	uarte	
AIRC	255	Installation Practices 7
AIRC	264	System Servicing and Troubleshooting of Heat Pumps 7
		Total
Sevent	h Oua	arter
AIRC	262	Control Theory and Automation
AIRC	265	Direct Digital Control Systems
		Total
120 cre	dits a	are required for the AAS.
1 The for	with a	unter in hold automatic auguston

*The fourth quarter is held summer quarter.* 

## **HISTORY PRE-MAJOR**

#### AA-DTA: SCC, SFCC

History is the branch of knowledge that deals systematically with the past-recording, analyzing, coordinating and explaining past events. It develops critical awareness of how we have become what we are and sharpens our vision of what we can become.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

#### 90 credits are required for the AA-DTA.

S

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## HORTICULTURE PRE-MAJOR

#### **AA-DTA: SCC**

The field of environmental horticulture pertains to floriculture, landscape design and maintenance, and greenhouse management.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

#### AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

#### 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **HOTEL AND RESTAURANT** MANAGEMENT

#### AAS: SCC

The Hotel and Restaurant Management program is a two-year course of study designed to develop qualified students in the organization and operation of hotels, motels and restaurants. Emphasis is placed on all aspects of food and beverage services including the operation of large and small restaurants and commercial/industrial food service programs; the management of such lodging facilities as all suite properties, hotels, resorts, private clubs, and bed and breakfast operations; and the study of travel and tourism and its impact on the hotel/restaurant industry.

The training provided by the Hotel and Restaurant Management program prepares students for entry into the fastest growing industry in the United States today. Individuals seeking a secure future in an exciting field should consider enrolling in the hotel and restaurant management program. A Restaurant Management option is available for students seeking career opportunities specifically in the restaurant field.

A grade of 2.0 or better must be maintained in all hotel and restaurant management courses and all culinary courses are required for a degree.

#### AAS

HM

#### HOTEL AND RESTAURANT MANAGEMENT

#### **First Quarter**

APLED	121	Applied Written Communication <sup>1</sup>	ł
CIS	110	Introduction to Computer Applications	5
HM	110	Introduction to Hospitality	5
HM	115	Food Sanitation <sup>2</sup>	3
		Total	1
Second	Qua	rter	
HM	112	Hospitality Mathematics	3

HM	141	Maintenance and Engineering 5
HM	160	Supervisory Housekeeping 3
MMCT	223	Customar Sarvica
IVIIVIG1	225	Total 19
Thind O		10(al
	uarto 105	
APLED	125	Employment Preparation <sup>1</sup>
HM	130	Human Relations
ISFIY	111	Industrial First Aid 2
		Cooperative Education Elective <sup>3</sup>
		Total
Fourth	Quar	ter
HM	111	Seminar - Hotel/Restaurant/Tourism
HM	202	Front Office Procedures
HM	220	Tourism and the Hospitality Industry
HM	265	Hospitality Cost Controls
		Total
Fifth O	uarte	r
CMST	227	Intercultural Communication 5
HM	232	Hotel/Restaurant Management Principles 5
MMCT	231	Human Resource Management 5
1 1/11/10	201	Total
Siveh O		
	uarto	
ACCI	151	College Accounting I
BUS	140	International Marketing 3
HM	205	Hotel/Restaurant Law
HM	208	Hotel Sales and Marketing 5
		Total
Sevent	h Qua	arter
CUL	123	Espresso
CUL	127	Banquet Service
CUL	131	A la Carte Service
		Cooperative Education Elective <sup>3</sup>
		Total
119 cre	dits a	re required for the AAS.
RESTAU	JRAN	T MANAGEMENT OPTION
First Q	uarte	r
APLED	121	Applied Written Communication <sup>1</sup> 4
CIS	110	Introduction to Computer Applications5
HM	110	Introduction to Hospitality 5
HM	115	Food Sanitation <sup>2</sup> 3
		Total
Second		
	Qua	rter
HM	<b>Qua</b> 112	rter Hospitality Mathematics
HM HM	<b>Qua</b> 112 126	rter Hospitality Mathematics
HM HM HM	<b>Qua</b> 112 126 141	rter Hospitality Mathematics
HM HM HM MMGT	<b>Qua</b> 112 126 141 223	rter Hospitality Mathematics
HM HM HM MMGT	<b>Qua</b> 112 126 141 223	rter Hospitality Mathematics
HM HM HM MMGT Third C	<b>Qua</b> 112 126 141 223	rter Hospitality Mathematics
HM HM HM MMGT Third Q	Qua 112 126 141 223 uart	rter         Hospitality Mathematics         Food Science         5         Maintenance and Engineering         5         Customer Service         3         Total         16         Fr         Employment Propagation
HM HM MMGT Third Q APLED	Qua 112 126 141 223 uarte 125	rter         Hospitality Mathematics         Food Science         5         Maintenance and Engineering         5         Customer Service         3         Total         16         Employment Preparation <sup>1</sup> 3         Human Balations
HM HM MMGT Third Q APLED HM	Qua 112 126 141 223 Quarte 125 130	rter         Hospitality Mathematics         Food Science         5         Maintenance and Engineering         5         Customer Service         3         Total         16         ar         Employment Preparation <sup>1</sup> 1         Human Relations         1         1
HM HM MMGT <b>Third Q</b> APLED HM ISFTY	Qua 112 126 141 223 <b>uart</b> 125 130 111	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         ar       Employment Preparation <sup>1</sup> 3         Human Relations       5       Industrial First Aid       2
HM HM MMGT <b>Third Q</b> APLED HM ISFTY	Qua 112 126 141 223 uarte 125 130 111	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       16         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5
HM HM MMGT <b>Third Q</b> APLED HM ISFTY	Qua 112 126 141 223 uarte 125 130 111	rterHospitality Mathematics3Food Science5Maintenance and Engineering5Customer Service3Total16er16Employment Preparation <sup>1</sup> 3Human Relations5Industrial First Aid2Cooperative Education Elective <sup>3</sup> 5Total15
HM HM MMGT Third Q APLED HM ISFTY Fourth	Qua 112 126 141 223 <b>uart</b> 125 130 111 Quar	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       15
HM HM MMGT Third Q APLED HM ISFTY Fourth HM	Qua 112 126 141 223 <b>uart</b> 125 130 111 Quar 111	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       Seminar - Hotel/Restaurant/Tourism       2
HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM	Qua 112 126 141 223 uart 125 130 111 Qua 111 151	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3
HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM	Qua 112 126 141 223 uart 125 130 111 Qua 111 151 220	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       Seminar - Hotel/Restaurant/Tourism       2         Sestaurant Management       3         Tourism and the Hospitality Industry       5
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM HM	Qua 112 126 141 223 <b>Quart</b> 125 130 111 <b>Quar</b> 111 151 220 265	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Tourism and the Hospitality Industry       5         Hospitality Cost Controls       5
HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM HM	Qua 112 126 141 223 uart 125 130 111 111 151 220 265	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Tourism and the Hospitality Industry       5         Hospitality Cost Controls       5
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM HM HM HM	Qua 112 126 141 223 <b>uart</b> 125 130 111 <b>Qua</b> 111 151 220 265	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Tourism and the Hospitality Industry       5         Hospitality Cost Controls       5
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM HM HM HM	Qua 112 126 141 223 uarta 125 130 111 151 220 265 uarte 227	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       1         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Tourism and the Hospitality Industry       5         Hospitality Cost Controls       5         Total       15         r       15
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM HM HM HM HM HM	Qua 112 126 141 223 <b>uart</b> 125 130 111 151 220 265 <b>uarte</b> 227 232	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       16         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Tourism and the Hospitality Industry       5         Hospitality Cost Controls       5         Total       15         r       11         Intercultural Communication       5         Hotel/Restaurant Management Principles       5
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM HM Fifth Q CMST HM HM	Qua 112 126 141 223 <b>uart</b> 125 130 111 151 220 265 <b>uarte</b> 227 232 225	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       16         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Total       15         ter       5         Intercultural Communication       5         Intercultural Communication       5         Hotel/Restaurant Management Principles       5         Manu Planning       2
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM Fifth Q CMST HM HM	Qua 112 126 141 223 Quarto 125 130 111 Quarto 111 151 220 265 Uarte 227 232 255 221	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       16         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Total       15         r       1         Intercultural Communication       5         Menu Planning       5         Menu Planning       5
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM Fifth Q CMST HM HM MMGT	Qua 112 126 141 223 <b>Quart</b> 125 130 111 151 220 265 <b>Quart</b> 232 255 231	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       16         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Total       15         f       1         Intercultural Communication       5         Menu Planning       3         Houran Resource Management       3
HM HM HM MMGT Third Q APLED HM ISFTY Fourth HM HM HM HM Fifth Q CMST HM HM MMGT	Qua 112 126 141 223 <b>uart</b> 125 130 111 151 220 265 <b>uarte</b> 227 232 255 231	rterHospitality Mathematics3Food Science.5Maintenance and Engineering5Customer Service3Total.16er1Employment Preparation <sup>1</sup> 3Human Relations5Industrial First Aid2Cooperative Education Elective <sup>3</sup> 5Total.15ter5Seminar - Hotel/Restaurant/Tourism2Restaurant Management3Tourism and the Hospitality Industry.5Hospitality Cost Controls5Total.15r15Menu Planning.3Human Resource Management3Total.18
HM HM HM HM HM HM APLED HM SFTY Fourth HM HM HM HM HM HM HM HM HM HM HM HM HM	Qua 112 126 141 223 Quart 125 130 111 151 220 265 227 232 255 231 Quart Quar	rter         Hospitality Mathematics       3         Food Science       5         Maintenance and Engineering       5         Customer Service       3         Total       16         er       16         Employment Preparation <sup>1</sup> 3         Human Relations       5         Industrial First Aid       2         Cooperative Education Elective <sup>3</sup> 5         Total       15         ter       5         Seminar - Hotel/Restaurant/Tourism       2         Restaurant Management       3         Total.       15         r       1         Industrial Controls       5         Total       15         r       15         r

ACCT	151	College Accounting I
BUS	140	International Marketing 3
HM	205	Hotel/Restaurant Law 5
HM	208	Hotel Sales and Marketing 5
		Total
Sevent	h Qua	arter
CUL	123	Espresso
CUL	127	Banquet Service
CUL	131	A la Carte Service
		Cooperative Education Elective <sup>3</sup>
		Total
117 cre	dits a	re required for the AAS.

#### **COOPERATIVE EDUCATION ELECTIVE**

ΗM	266	Cooperative Education Seminar 1-2
HM	267	Cooperative Education Work Experience 1-18
HM	288	Cooperative Education Work Experience (No Seminar)1-18
1 71.:.		

- <sup>1</sup> This course may be substituted with any course or combination of courses approved by the instructional dean.
- <sup>2</sup> This course is required for certification by the Educational Foundation of the National Restaurant Association.
- <sup>3</sup> Student may select HM 266 and 267 (must be taken concurrently) or HM 288. Cooperative education course credits are variable and can be added to any quarter or taken during summer quarter. Ten credits are required for graduation.

## HYDRAULIC AND PNEUMATIC AUTOMATION TECHNICIAN

#### AAS, Certificate: SCC

Graduates from the Hydraulic and Pneumatic Automation Technology program have developed skills to qualify for employment in hydraulic and pneumatic sales, automated equipment fabrication or plant machinery maintenance work.

Activities in sales and distribution vary from warehousing, inside sales, purchasing, outside sales, power unit fabrication to field service work. Each area offers challenging work, with most employers providing on-the-job training for product familiarization and developing the special skills required for sales and service in pneumatic automation products.

Activities include equipment or circuit design, shop assembly, installation of complex electro-hydraulic systems, field installation of new equipment or servicing existing equipment. Field service can involve world travel with a lot of time away from home.

Activities in industrial plant maintenance vary from installing new equipment to troubleshooting and repairing existing equipment. This requires developing analytical procedures and certain mechanical abilities or skills to improve equipment performance and reliability.

A 2.0 GPA or better must be maintained in all hydraulic and pneumatic automation technology coursework before advancing to the subsequent quarter. Students not meeting this minimum requirement may repeat the course(s) one time before progressing. A student who is below the minimum 2.0 GPA may seek a one-time waiver with the approval of the division dean.

#### First Ouarter

-			
ΒT	100	Beginning Keyboarding	1
CIS	105	Computer Fundamentals for Vocations I	4
FLPT	121	Pneumatic Theory	6
FLPT	122	Drawing Fundamentals	3
FLPT	123	Machine Controls.	7
		Total	1
Second	Qua	rter	
AGGEN	152	Arc Welding	4
FLPT	111	Hydraulic Calculations	5
FLPT	112	Hydraulic Basics and Theory	5
FLPT	113	Blueprint Reading	4
FLPT	114	Basic Hydraulics Lab	2
		Total	0

#### **Third Quarter**

		Total	21
FLPT	135	Fluid Line Sizing Calculations	2
FLPT	134	Shop Drawing	2
FLPT	133	Fluid Line Connectors	5
FLPT	132	Fluid Line Fabrication	2
FLPT	131	Hydraulic Systems	6
APLED	121	Applied Written Communication <sup>1</sup>	4

#### **Fourth Quarter**

	-		
APLED	123	Leadership Skills for Business and Industry <sup>1</sup>	3
FLPT	230	Advanced Pneumatics Theory	3
FLPT	231	Advanced Pneumatics Lab	2
FLPT	232	Mechanical Drive Systems Theory	3
FLPT	233	Mechanical Drive Systems Lab.	3
FLPT	234	Velocity and Load Calculations	1
FLPT	243	Advanced Machine Controls	4
		Total	9

#### **Fifth Quarter**

APLED	125	Employment Preparation <sup>1</sup>
FLPT	251	Hydraulic Circuits
FLPT	252	Hydraulic Component Repair
FLPT	253	Fluid Line Layout and Assembly 2
FLPT	254	Advanced Hydraulics Lab
FLPT	279	Proportional Valves
		Total

#### **Sixth Quarter**

		Total
ISFTY	111	Industrial First Aid <sup>2</sup> 2
FLPT	269	Hydraulic Manifold Design <sup>2</sup>
FLPT	268	Fluid Power Application and Sales <sup>2</sup> 5
FLPT	265	Hydraulic Circuit Design <sup>2</sup> 3
FLPT	264	Fluid Power Computer Applications <sup>2</sup>

#### 120 credits are required for the AAS.

#### CERTIFICATE

#### **First Quarter**

BT	100	Beginning Keyboarding1
CIS	105	Computer Fundamentals for Vocations I 4
FLPT	121	Pneumatic Theory
FLPT	122	Drawing Fundamentals
FLPT	123	Machine Controls
		Total
Second	Qua	rter
AGGEN	152	Arc Welding
FLPT	111	Hydraulic Calculations
FLPT	112	Hydraulic Basics and Theory
FLPT	113	Blueprint Reading 4
FLPT	114	Basic Hydraulics Lab
		Total
Third Q	uarte	er
APLED	121	Applied Written Communication <sup>1</sup> 4
FLPT	131	Hvdraulic Systems
FLPT	132	Fluid Line Fabrication
FLPT	133	Fluid Line Connectors
FLPT	134	Shop Drawing
FLPT	135	Fluid Line Sizing Calculations 2
		Total
Fourth	Quar	ter
	-	Applied Education Elective
		Total

#### **APPLIED EDUCATION ELECTIVE**

APLED	123	Leadership Skills for Business and Industry 3
APLED	125	Employment Preparation 3
<sup>1</sup> This rel	lated	education requirement may be met by any course or combination

of courses approved by the instructional dean.

<sup>2</sup> Sixth quarter courses may be substituted with the following courses with department permission: FLPT 266 (1 credit) and FLPT 267 (1-16 credits) or FLPT 288 (1-17 credits).

## **INFORMATION PROCESSING**

#### AAS: SFCC

This program is for students who desire to work in an office environment using their skills in computer software applications, desktop publishing, web publishing, communications, business management, and office procedures.

This two-year degree prepares graduates to choose from a wide variety of positions available in business, industry, or non-profit organizations. Students will acquire speed and accuracy on the keyboard, develop business writing skills, acquire skills in troubleshooting routine computer problems, and develop a solid working knowledge of Microsoft applications. Students will complete capstone courses which will integrate classroom learning into "real-world" office situations.

Students will have the opportunity to bridge the gap between the classroom and the working world by participating in model office simulations as well as a professional work experience internship.

#### AAS

#### ect Auguston

rirst Qi	Jarte	ſ	
BT	101	Keyboarding <sup>1</sup>	. 5
BT	107	Business Communications <sup>2</sup>	. 3
GENST	106	College Success	. 3
IS	120	Business Computer Use	. 3
IS	160	Internet Fundamentals	. 1
		Total	15
Second	Oua	rter	
ACCT	103	Fundamental Bookkeeping Procedures	. 3
BT	102	Document Processing	. 5
BT	108	Business Communications <sup>2</sup>	3
BUS	102	Math Skills for Business <sup>3</sup>	. 3
200	102	Approved Elective	. 1
		Total	15
Third O	uart	Pr	
BT	103	Formatting	5
BT	155	Records Information Management	. 0
BT	231	Office Procedures	. 0
CAPPS	112	Excel	2
anro	114	Total	15
Fourth	Ouar	ter	
BT	258	Deskton Publishing	5
BT	250	Business Correspondence	. 5
IS	210	Internet Programming I	. 0 2
10	210	Approved Elective	. 0
		Total	· 4
			13
	Jarte		_
DI DT	233	Machine Transcription	. 0
DI DT	200	A durinistration Office Management	. J
	260		. ວ
CAPPS	114	Access	. 2
CAPPS	120		. 2
		lotal	17
Sixth Q	uarte	21	
BT	160	Job Preparation Techniques	. 3
B.L.	201	Information Processing	. 5
BL	234	Administrative Professional Practicum	. 5
BI	270	Ottice Computer Support	. 3
R.L.	285	Administrative Professional Internship	. 2
_		Total.	18

#### 95 credits are required for the AAS.

<sup>1</sup> Students may take BT 102 if they possess keyboarding skills at 35 wpm and knowledge of business document formatting. Permission of instructor recommended.

<sup>2</sup> ENGL& 101 may be substituted.

<sup>3</sup> BUS 103 may be substituted.

## **INFORMATION TECHNOLOGY**

#### AAS: SFCC

The Information Technology AAS degree program is designed to provide students with capabilities in several areas of information technology:

- Computer and network installation and maintenance skills.
- Business computing skills including daily systems operations and applications programs.
- Security and forensics skills.
- Various Internet and network skills including web pages design, client/server side programming, web server installation and maintenance.
- Transfer option to a four-year institution.

This degree insures that the student is knowledgeable in a broad spectrum of information technology subjects that are often needed by the IT industry.

#### AAS

#### **First Quarter**

BT	100	Beginning Keyboarding	1
ENGL&	101	English Composition I.	5
IS	101	Planning For Information Technology Students	1
IS	103	Information Technology Fundamentals	5
IS	105	Applications for IT I.	3
		Total	5
Second	Qua	rter	
IS	107	Applications for IT II	З
IS	132	Computer Ethics & Law	5

Second	l Qua	rter
IS	107	Applications for IT II
IS	132	Computer Ethics & Law
IS	140	Computer and Network Support
IS	162	Data Communications and Networks
		Total
Third Q	)uart	er
CS	121	UNIX/Linux
ENGL&	235	Technical Writing
IS	144	Programming Fundamentals
IS	210	Internet Programming I
		Total
Fourth	Quar	rter
CS	223	Programming for IT
IS	260	Database Theory
IS	262	Network Management
		Total
Fifth Q	uarte	r
IS	234	Computer Forensics I
IS	244	Network Security I 5
MATH	098	Algebra III
		Total
Sixth Q	luarte	er
IS	228	Internet Servers

		lotal	18
		Total	10
PHYS	100	Introductory Physics	5
IS	267	Cooperative Education Work Experience	2
IS	266	Cooperative Education Seminar	1
IS	245	Network Security II	5
15	220		

95 credits are required for the AAS.

## INTEGRATED BUSINESS AND ENTREPRENEURSHIP PROGRAM

#### **Certificate: SCC**

The IBE program offers a hands-on approach to training our future business leaders and entrepreneurs. Students from all areas of study will participate in a year-long business experience where they will create a business from the ground up. College instructors and local business and community leaders guide student teams through the process of starting and launching a business. Students will master academic material by producing deliverables in an authentic business environment created on the SCC campus. Students entering the program need a minimum cumulative GPA of 2.0 or permission of the department chair. Students may not currently be on academic probation. An application to the program needs to be completed followed by an interview by the IBE instructors. Completion of a small business planning class is highly recommended before entering the program.

#### CERTIFICATE

### First Quarter

IBE	201	Integrated Business and Entrepreneurship	
		Principles I	10
		Total	10
Secon	d Qua	rter	
IBE	202	Integrated Business and Entrepreneurship	
		Principles II.	10
		Total	10
Third	Quart	er	
IBE	203	Integrated Business and Entrepreneurship	
		Principles III	10
		Total	10

30 credits are required for the Certificate.

## **INTERIOR DESIGN**

#### AAS, AAS with Professional Diploma: SFCC

The Interior Design program at Spokane Falls Community College offers a broad-based and professionally relevant curriculum designed to enable graduates to successfully compete for jobs and to function as interior designers. Students who enter the program have various alternatives. They may complete an associate in applied science degree (AAS) in six quarters with an emphasis in residential design. These students could obtain employment in residential-oriented retail establishments such as wallcovering and furniture stores.

Students also may receive a Professional Interior Design Diploma in addition to the AAS degree by completing an optional one-year program. These students will have their AAS prior to beginning the additional year. The third year will qualify students for entry-level positions as professional interior designers and will emphasize commercial design, business, communications and advanced design specialty courses. These students will have a broad range of employment opportunities with architectural firms, commercial design firms, as well as a variety of retail design establishments. Students completing the additional year are required to prepare a portfolio and complete at least 165 hours of internship that will ease the transition from school to work. In order to be certified into the third year program, students must complete a review process upon completion of their second year.

Spokane Falls Community College and Washington State University have an articulation agreement offering interior design students the best of both worlds in education and career choices. The partnership allows students to begin at SFCC, earn a three-year professional diploma, then transfer with senior standing to WSU Spokane's Interdisciplinary Design Institute, where they can earn a four-year bachelor's degree. For more information, refer to the Interior Design-Transfer Track career planning guide.

#### AAS First Ouarter

-			
HS	136	Improving Interpersonal Communication	. 5
INTDS	105	Design Drawing	. 4
INTDS	170	Elements of Interior Design	. 5
INTDS	173	Architectural Graphics 1	. 4
		Total.	18
Second	Qua	rter	
ENGL&	101	English Composition I	. 5
FMDSE	180	Retail Sales Techniques	. 3
INTDS	106	Sketching Techniques	. 4
INTDS	184	Architectural Graphics II	. 4
		Total	16

104

#### **Third Quarter**

INTDS	107	Rendering Techniques
INTDS	187	Architectural Graphics III
INTDS	280	Textiles for Interiors
		Speech Communication Electives
		Total
Fourth	Quar	ter
INTDS	171	Interior Design Studio I
INTDS	175	Materials of Interior Design 5

		Total
		Math Elective 3-5
INTDS	179	History of Interiors I 3
INTDS	175	Materials of Interior Design 5
INTDS	171	Interior Design Studio I 6

#### **Fifth Quarter**

INTDS	172	Interior Design Studio II	6
INTDS	180	History of Interiors II	3
INTDS	185	Building Systems for Interior Design	3
INTDS	186	Lighting Design	3
		Total	5

#### **Sixth Quarter**

		Total
		Suggested Electives <sup>1</sup> 5
INTDS	285	Computer Aided Design I 4
INTDS	181	History of Interiors III 3
INTDS	176	Special Environments 6

#### 102-104 credits are required for the AAS.

#### AAS WITH PROFESSIONAL DIPLOMA

Note: Students must complete the AAS degree in interior design and complete the review processes to enroll in commercial design specialty courses and earn a professional diploma.

#### **First Quarter**

GRDSN	158	PhotoShop I 2
GRDSN	163	InDesign I 2
INTDS	281	Commercial Design Studio I
INTDS	285	Computer Aided Design I 4
SOC&	101	Intro to Sociology
		Total
Second	Quar	rter
INTDS	275	Professional Practices
INTDS	282	Commercial Design Studio II
INTDS	286	Computer Aided Design II 4
INTDS	287	Digital Interior Design Technology
		Total
Third Q	uarte	r
ENVS&	101	Intro to Env Science
INTDS	266	Cooperative Education Seminar
INTDS	267	Cooperative Education Work Experience
INTDS	268	Design Portfolio
		Total
51 credi	ts are	e required for the AAS with Professional Diploma.
FIFTH O	UART	FR FI FCTIVES
IS	120	Business Computer Use 3
	IZU	
BUS	102	Math Skills for Business
MAIH&	107	Math in Society
SPEECH	сом	MUNICATION ELECTIVES
CMST&	101	Introduction to Communication
CMST&	220	Public Speaking 5
<sup>1</sup> See dep	artme	nt for list of suggested electives.

## **INTERIOR DESIGN - Transfer Track**

#### **AAS with Professional Diploma: SFCC**

Washington State University and Spokane Falls Community College have created a working partnership giving interior design students the best of both worlds in education and career choices.

This partnership allows students to begin at SFCC, earn an AAS degree with a professional diploma specializing in residential and commercial

design and then transfer with full senior standing to WSU Spokane's prestigious Interdisciplinary Design Institute. Students may earn a Bachelor of Arts in Interior Design by completing one year of studies at WSU. In order to be considered for acceptance into the third year diploma program, students must complete a review process upon completion of their second year.

SFCC's highly respected program is designed with input from professionals throughout the region and follows the curriculum standards set by the Council for Interior Design Accreditation (CIDA). In addition to completing the AAS degree, transfer track students have the following options:

- A professional diploma for residential and commercial design, or
- A Bachelor of Arts in Interior Design from Washington State University. Students earn their professional diploma from SFCC, and then transfer with full senior standing to the WSU Spokane Interdisciplinary Design Institute. Students are also eligible for WSU's 4+1 program, where they may earn a master's degree.

#### AAS WITH PROFESSIONAL DIPLOMA

#### First Quarter

11136 6		
INTDS	105	Design Drawing 4
INTDS	170	Elements of Interior Design 5
INTDS	173	Architectural Graphics 1 4
PSYC&	100	General Psychology 5
		Total
Second	Qua	rter
ENGL&	: 101	English Composition I
INTDS	106	Sketching Techniques
INTDS	179	History of Interiors I
INTDS	184	Architectural Graphics II
Thind O		IOTAI
	107	er Den dening Trabaience
INTDS	107	Rendering Techniques
INTDS	280	Textiles for Interiors 5
111105	200	Speech Communication Elective 5
		Total
Fourth	Ouar	'ter
ASTR&	101	Intro to Astronomy <sup>1</sup> 5
1101100	101	History Elective
		Physical Science Elective <sup>2</sup>
		Total
Fifth Q	uarte	r
INTDS	171	Interior Design Studio I
INTDS	174	Design Presentation
INTDS	175	Materials of Interior Design 5
MATH&	z 107	Math in Society
		Total
Sixth Q	uarte	er
INTDS	172	Interior Design Studio II
INTDS	180	History of Interiors II
INTDS	186	Lighting Design
		ART/HUMAN GER Elective <sup>3</sup>
Concenti	h 0	10tdi
Sevent	176	Second Environments
INTDS	1/0	History of Interiors III
INTDS	185	Building Systems for Interior Design 3
111100	105	History Elective 5
		Total
Eighth	Ouar	ter
INTDS	275	Professional Practices 3
INTDS	281	Commercial Design Studio I
INTDS	285	Computer Aided Design I 4
SOC&	101	Intro to Sociology
		Total
Ninth C	)uart	er
INTDS	282	Commercial Design Studio II 6
INTDS	286	Computer Aided Design II 4

INTDS	287	Digital Interior Design Technology
Tonth (	Juart	10tal
INTDS INTDS INTDS	266 267 268	Cooperative Education Seminar.       2         Cooperative Education Work Experience.       5         Design Portfolio       3         Biological Science Elective <sup>2</sup> 5         Total.       15
173 cre Diplom	dits a a.	are required for the AAS with Professional
BIOLOG	ICAL	SCIENCE ELECTIVE
BIOL& ENVS&	160 101	General Biology w/Lab
HISTOR	Y ELE	CTIVE
HIST& HIST& HIST&	116 117 118	Western Civilization I5Western Civilization II5Western Civilization III5
PHYSIC	AL SC	IENCE ELECTIVE
ASTR& ASTR& CHEM& GEOL&	100 101 z 121 z 101	Survey of Astronomy5Intro to Astronomy5Intro to Chemistry: w/Lab5Intro Physical Geology5
SOCIAL	SCIE	NCES ELECTIVE
ANTH& HIST HIST HIST	206 141 142 230	Cultural Anthropology.5History of China.5History of Japan5Latin American History.5
SPEECH	CON	IMUNICATION ELECTIVE
CMST& CMST&	101 220	Introduction to Communication.5Public Speaking5
<ol> <li>ASTRA 3 scient and on</li> <li>WSU 1 must b</li> <li>Choose</li> </ol>	& 101 ices: 1 ie scier require pe a lat	may be substituted with any science. WSU requires a total of biological, 1 physical (one of these two must be a lab science), nce of any type. es a total of 3 sciences: 1 biological, 1 physical (one of these two b science), and one science of any type.

Choose one: ART& 100, ART 108, 109, 110, DRMA& 101, English, Music, Humanities or Philosophy.

## **INTERNATIONAL BUSINESS**

#### **Certificate: SFCC**

The International Business Certificate is designed to meet the growing demand for internationally related skills. It is offered as a stand-alone certificate for students and business people who need specific credentials in the international area or as an internationally oriented training certificate for students with career goals and degrees in traditional business fields such as marketing, management, accounting, retailing and so on.

The program has two objectives:

- To introduce students to the world of global business, to expose them to intercultural implications involved in doing business internationally and to prepare them for entry-level positions.
- To prepare currently employed business people, who have specific job skills, for advancement to positions of greater responsibility with an international emphasis.

#### CERTIFICATE

#### **First Quarter**

BT	107	Business Communications		
BUS	102	Math Skills for Business		
BUS	120	International Business		
BUS	180	Travel and Tourism		
MMGT	181	Leadership Training-DEC 1		
		Total		
Second Quarter				
BUS	140	International Marketing 3		

		Total 1	5
		Special Project <sup>1</sup>	1
MGT	182	Leadership Training-DEC	1
ENST	291	Educational Tour	2
CON	100	Fundamentals of Economics	5
JS	185	Travelography: Destinations for Business and Tourism	3

#### redits are required for the Certificate.

cial project may be in the form of a written report, seminar attendance, perative education work experience, directed study or internship.

## TERNATIONAL STUDIES PRE-MAJOR

## **AA-DTA: SFCC**

nternational Studies pre-major provides students with an opportuor an international focus for their program of study. This pre-major be completed in two years in conjunction with the associate of arts degree. An effort has been made to see that students earning this najor and graduating with an AA degree will be able to transfer to rn Washington University and Gonzaga University and be accepted heir International Affairs programs at junior standing.

ult a counselor or academic adviser for recommended courses fic to student's choice of transfer institution.

#### DTA

#### ransfer degree requirements in the Transfer Program Outlines on of this catalog.

	-
ANTH& 206	Cultural Anthropology
ECON& 202	Macro Economics
GEOG 101	Introduction to Geography
POLS 125	Introduction to Global Issues
POLS& 203	International Relations
	Foreign Language <sup>1</sup> 15
	Humanities <sup>2</sup> 15
	Remaining AA Degree Requirements <sup>3</sup>
	Total

#### redits are required for the AA-DTA.

#### IGN LANGUAGE

CHIN& 121	Chinese I
CHIN& 122	Chinese II
CHIN& 123	Chinese III
FRCH& 121	French I
FRCH& 122	French II
FRCH& 123	French III
FRCH& 221	French IV 5
FRCH& 222	French V
FRCH& 223	French VI
GERM& 121	German I
GERM& 122	. German II
GERM& 123	German III
GERM& 221	German IV
GERM& 222	. German V
GERM& 223	German VI
JAPN& 121	Japanese I
JAPN& 122	Japanese II 5
JAPN& 123	Japanese III 5
JAPN& 221	Japanese IV 5
JAPN& 222	Japanese V
JAPN& 223	Japanese VI
RUSS& 121	Russian I
RUSS& 122	Russian II
RUSS& 123	Russian III 5
SPAN& 121	Spanish I 5
SPAN& 122	Spanish II
SPAN& 123	Spanish III
SPAN& 221	Spanish IV 5
SPAN& 222	Spanish V
SPAN& 223	Spanish VI

# PROGRAM OUTLINES

#### **HUMANITIES**

ART&	100	Art Appreciation
ART	108	Ancient/Medieval Art
CMST	227	Intercultural Communication
ENGL	271	World Literature to 1650 5
PHIL&	101	Intro to Philosophy 5

<sup>1</sup> Select three classes in one foreign language: Chinese, French, German, Japanese, Russian, or Spanish. This is a minimum requirement; students should complete at least two years of a foreign language and achieve fluency in speaking and writing before finishing a four-year degree.

<sup>2</sup> Select 15 credit hours of classes from three disciplines in this humanities list.

<sup>3</sup> Completion of the requirements as listed will satisfy the humanities, social science and elective categories of the AA degree. Remaining AA degree requirements in communication, intermediate algebra and quantitative/ symbolic reasoning, math/science, and health related/PE/recreational/leisure activities courses must also be completed. A total of 90 quarter credits in courses numbered 100 or above are required.

## **INTERPRETER TRAINING PROGRAM**

#### AAS-T, Certificate: SFCC

The AAS-T is an associate degree providing comprehensive core interpreter training program content based on the CEIC accreditation standards. The critical content coursework in the AAS-T addresses all of the Educational Interpreter Education competencies required by the Washington State Board of Education for certified education endorsement in Deaf Education P-12 from OSPI. The balance of the degree is made up of significant general education coursework credits necessary for transfer.

The Interpreter Training Program is an innovative program that offers the opportunity to acquire basic skills to launch into a new career in the sign language interpreting field skill in American Sign Language or to use sign language as a foreign language credit. Program courses are offered on campus and online.

Those who are skilled interpreters, in addition to having a trade or profession, provide a valuable service to society, making it possible to provide equal access for deaf and hard-of-hearing people to all area of employment, social services and education.

#### AAS-T

#### **First Quarter**

ASL& GENST HLTH	121 114 104	Am Sign Language I5Thriving In College2Stress Management3
ITP	104	Introduction to Audiologic Rehabilitation/Habilitation 4
		Total
Second	Qua	rter
ASL&	122	Am Sign Language II 5
HS	136	Improving Interpersonal Communication5Education or Social Sciences Elective5-10
		Total 15-20
Third Q	uarte	er
ASL&	123	Am Sign Language III
ECED	190	Child Development
EDUC&	204	Exceptional Child
		Total
Fourth	Quar	ter
ASL&	221	American Sign Language IV5
ITP	231	Theories of Discourse Analysis
ITP	241	Deaf Social and Cultural Issues
		Lab Science Elective <sup>1</sup>
		Total
Fifth Qu	ıarte	r
ASL&	222	American Sign Language V 5
ITP	232	ASL Linguistic Principles 3
ITP	242	Ethics of Interpreting I 2
MATH&	107	Math in Society 5
		Total
Sixth Q	uarte	r
ASL&	223	American Sign Language VI 5

ENGL& 101 English Composition I...... 5

ITP	233	Manually Coded English Systems
ITP	243	Educational Interpreting 2
		Total
Sevent	h Qua	arter
EDUC	206	Tutor Training
ITP	244	Ethics of Interpreting II 3
ITP	251	Interpreting I
ITP	261	Transliteration I 5
ITP	281	Applied Interpreting I 1
		Total
Eighth	Quar	ter
CMST	121	Job Communication Skills
ITP	252	Interpreting II
ITP	262	Transliteration II
ITP	282	Applied Interpreting II
		Total
Ninth Q	)uart	er
ITP	245	Advanced Ethics 2
ITP	253	Interpreting III
ITP	263	Transliteration III
ITP	283	Applied Interpreting III 3

140-145 credits are required for the AAS-T.

#### CERTIFICATE

#### **ITP CERTIFICATE OF COMPLETION**

Students applying for a certificate of completion must currently hold an AA, AAS, BA or BS and complete a specified 94 credit sequence of courses in the human services interpreter training program.

#### **First Quarter**

ASL& ITP	121 104	Am Sign Language I 5 Introduction to Audiologic Rehabilitation/Habilitation 4
		Total9
Second	l Qua	rter
ASL&	122	Am Sign Language II
		Total5
Third C	Quart	er
ASL&	123	Am Sign Language III 5
		Total5
Fourth	Quar	rter
ASL&	221	American Sign Language IV5
ITP	231	Theories of Discourse Analysis
ITP	241	Deaf Social and Cultural Issues
		Total
Fifth Q	uarte	r
ASL&	222	American Sign Language V5
ITP	232	ASL Linguistic Principles 3
ITP	242	Ethics of Interpreting I 2
		Total
Sixth Q	)uarte	er
ASL&	223	American Sign Language VI
ITP	233	Manually Coded English Systems 5
ITP	243	Educational Interpreting 2
		Total
Sevent	h Qu	arter
ITP	244	Ethics of Interpreting II 3
ITP	251	Interpreting I 5
ITP	261	Transliteration I
ITP	281	Applied Interpreting I 1
		Total
Eighth	Quar	ter
ITP	252	Interpreting II
ITP	262	Transliteration II
ITP	282	Applied Interpreting II
		Total
Ninth (	Quart	er
ITP	245	Advanced Ethics
ITP	253	Interpreting III

107

#### ITP 263 Transliteration III ...... 5 ITP Applied Interpreting III ..... 3 283

#### 94 credits are required for the Certificate.

#### EDUCATION OR SOCIAL SCIENCES ELECTIVE

ECED	254	Dynamics of Family Relationships	5
ECED	290	School-age Development	5
EDUC&	202	Intro to Education	5
EDUC	252	Social/Emotional Development	5
EDUC	280	Behavior/Classroom Management	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

<sup>1</sup> Electives must be related to student's declared field of interest and approved by the interpreter training program/deafness adviser.

## INVASIVE CARDIOVASCULAR TECHNOLOGY

#### AAS: SCC

The invasive cardiovascular technologist is a health care professional who, through the use of specific high-technology equipment and at the direction of a qualified physician, performs procedures on patients leading to the diagnosis and treatment of congenital and acquired heart disease, and peripheral vascular disease.

As a member of the cardiac catheterization team, the cardiovascular technologist is a surgical scrub assistant, monitors the patient's condition and operates other"CATH Lab." equipment.

The most important "CATH Lab" studies are coronary angiography, percutaneous coronary intervention (where stents, balloons, plaque removal devices, and other treatments to restore blood flow are deployed), right heart catheterization (where blood flow measurements are made), electrophysiology (where irregular heartbeats are created, studied and treated) and pacemaker implantations.

The invasive cardiovascular technologist also works with physicians during critical times during heart attacks by restoring blood flow to diseased areas of the heart. They assist with percutaneous revascularization, give clot-dissolving drugs, and operate cardiac assist pumps.

The first year of the Invasive Cardiovascular program teaches basic sciences and cardiology and is combined with the Noninvasive Cardiovascular program. In the second year, the Invasive students concentrate on the technical duties of a cardiac catheterization technologist and spend time working in local hospital cardiac laboratories.

Upon completion of the didactic training (six quarters), the student selects an out-of-town medical center where he/she will complete the final quarter of clinical internship. Students may take the CCI National Registry Exam upon graduation. The program is the only CAAHEP approved invasive technology program in the northwestern United States. The Cardiovascular Technology Programs (Invasive and Noninvasive) are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Joint Review Committee for Cardiovascular Technology (www.jrccvt.org). William W. Goding, Med., RRT Executive Director, JRC-CVT 6 Pine Knoll Dr. Beverly, MA 01915-1425 (978) 456-5594 (978) 927-1214 (FAX) www.jrccvt.org

- High school diploma or GED certificate required
- Appropriate scores in ASSET or COMPASS required
- Computer skills recommended
- Active e-mail account recommended
- A 2.0 grade must be maintained quarterly in each course before proceeding to the next quarter.
- Students may repeat an invasive cardiovascular course once, but it must be repeated within two years.

#### AAS

#### Prerequisites

BIOL& 160 General Biology w/Lab BIOL& 241 Human A & P 1 BIOL& 242 Human A&P 2 CMST 127 Leadership Development

#### ENGL& 101 English Composition I MATH 099 Intermediate Algebra PHYSIntroductory Physics 100 **First Quarter** HED 109 ICT 114 ICT 115 Technical Skills - CPR for Health Care Providers . . . . 1 ICT Acute Coronary Syndrome ..... 1 116 ICT 117 Cardiovascular Pharm 1 ..... 1 NCT 113 Electrophysiology I..... 4 Second Quarter ICT 124 CV Diagnostic Exams ..... 4 ICT 125 Hemodynamics ..... 2 Technical Skills/Reading Hemodynamics ..... 1 ICT 126 ICT Cardiovascular Pharm 2 ..... 1 127 ICT 128 Technical Skills/Pharmacology ..... 1 ICT 129 CPR Instructor ...... 1 NCT 123 PHYS 120 **Third Quarter** ICT 134 Cath Lab Procedures ...... 3 ICT 135 ICT Cardiovascular Physiology ..... 4 138 ICT 139 Radiation Safety......2 ICT 140 Surgical Asepsis ..... 1 ICT Technical Skills/Surgical Asepsis.....1 141 **Fourth Quarter** Patient Care and Assessment ..... 4 ICT 144 Technical Skills/Cath Lab Boot Camp/Patient Care ... 4 ICT 145 ICT Cath Lab Clinical I..... 6 146 **Fifth Quarter** ICT 214 ICT 215 Non Cardiac Vascular (Special) Procedures 1 ..... 2 ICT 216 Technical Skills/PCI/EP/Special Equipment. ..... 2 ICT 217 ICT 218 NCT 253 Echocardiography I ..... 1 RT 211 Advanced Cardiac Life Support ..... 2 **Sixth Quarter** ICT 224 Advanced Practices/Management ..... 5 ICT 225 Statistics and Research ...... 1 ICT 226 Electrophysiology 2 Interventions ...... 2 ICT 227 ICT 228 Technical Skills/Peds/Statistical Analysis/EP ..... 2 ICT 229 **Seventh Ouarter**

		Total	16
ICT	235	Cath Lab Clinical IV.	. 12
ICT	234	Board Registry (RCIS) Prep Blackboard	4
	-		

108 credits are required for the AAS.

## **JOURNALISM PRE-MAJOR**

#### **AA-DTA: SFCC**

The journalism curriculum helps students develop valuable critical thinking and writing skills while they learn up to date interviewing and computer assisted research techniques. Students also learn about the role different media play in shaping our lives and perceptions about society. Some students decide to apply what they learned toward a career in journalism; others decide to use their coursework to lay the foundation for a career in public relations, business, advertising, marketing, graphic design or technical writing. SFCC's award winning student news publications, Communicator and Communicator Online, allow students
to gain hands on experience in writing, editing, photography, layout, marketing, advertising, web design and business management.

## **AA-DTA**

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

## **First Quarter**

-	aurec	8
ENGL&	101	English Composition I
JOURN	101	College Newspaper Production I 3
JOURN	110	Mass Media 5
		Health Elective
		Total
Second	Qua	rter
ECON&	201	Micro Economics
JOURN	102	College Newspaper Production II 3
JOURN	220	Introduction to News Writing5
PHOTO	101	Introduction to Photography5
		Total
Third Q	uarte	er
HUM	107	Introduction to Cultural Studies <sup>1</sup> 5
JOURN	103	College Newspaper Production III
JOURN	224	Advanced News Reporting 5
PHIL	210	Ethics
		Total
Fourth	Quar	ter
ENGL&	111	Intro to Literature <sup>2</sup>
JOURN	201	College Newspaper Production IV
JOURN	225	Multimedia Journalism 5
PHIL&	106	Intro to Logic
		Total
Fifth Qu	ıarte	r
BIOL	100	Environmental Biology 5
HIST	141	History of China
JOURN	202	College Newspaper Production V 3
MATH	221	Introduction to Probability and Statistics5
		Total
Sixth Q	uarte	er
JOURN	100	Introduction to Broadcasting
JOURN	203	College Newspaper Production VI
NUTRI	251	Nutrition
PSYC&	100	General Psychology5
		Total

## 106 credits are required for the AA-DTA.

## **HEALTH ELECTIVE**

HLTH	101	Health and Wellness
HLTH	104	Stress Management
HLTH	174	First Aid
<sup>1</sup> HUM	107 ca	n be substituted with GRDSN 100.

<sup>2</sup> ENGL& 111 can be substituted with HUM& 101.

## LANDSCAPE-TURF

## AAS, Certificate: SCC

The field of environmental horticulture pertains to floriculture, landscape design and maintenance, and greenhouse and nursery management. This program provides a study of ornamental plant materials and propagation and how they relate to landscape design construction, installation, maintenance and turfgrass management. At the completion of the second year, the student may receive the associate in applied science degree. Émployment potential includes golf course maintenance, landscape designer, retail sales manager, landscape contractor, landscape park maintenance supervisor and irrigation specialist.

Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter being the fourth quarter. It is recommended that students work closely with the program adviser or department chair when planning classes.

## AAS

FIRST QU	larte	r
AGGEN	156	Equipment Operation and Maintenance
AGHRT	110	Fall Landscape Plant Materials
AGHRT	126	Computer Essentials for Environmental Sciences 2
AGHRT	171	Agricultural Leadership Training
APLED	112	Applied Mathematics <sup>1</sup>
APLED	121	Applied Written Communication <sup>1</sup> 4
	121	Total
Second	Qua	rter
AGGEN	151	Shop Skills 4
AGHRT	102	Pesticides and Fertilizer Application Equipment 4
AGHRT	104	Principles of Pest Management 5
AGHRT	116	Green Industry Business Management 5
AGHRT	172	Agricultural Leadership Training
11011111	172	Total 19
Third O	uarte	
ACUDT	110	Spring Landscope Dlant Materials 5
AGIINI	206	Spring Landscape Flant Materials
AGIINT	200	
AGRIC	110	Diard Dialagement
EINVS	110	Plant Biology
T a secolda	0	10tal
FOURT	Quar	
AGHRI	266	Cooperative Education Seminar
AGHRT	267	Cooperative Education Work Experience
	_	Iotal
Fifth Q	larte	r
AGHRT	115	Pruning
AGHRT	204	Landscape Design 1 4
AGHRT	230	Plant Problem Diagnosis 5
AGHRT	232	Pest Management Project 2
AGHRT	234	Bidding and Estimating 3
		Total
Sixth Q	uarte	21
AGHRT	202	Principles of Irrigation5
AGHRT	205	Landscape Design 2 4
AGHRT	228	Arboriculture
BUS	280	Human Relations in Business
		Total
Seventl	h Qua	arter
AGHRT	201	Landscape Installation
AGHRT	225	Weed Biology and Control
ENVS	210	Environmental Soil Science
MMGT	205	Small Business Planning 5
		Total

119 credits are required for the AAS.

## CERTIFICATE

The Landscape-Turf Certificate provides a study of landscape design and turfgrass management. Students must enter in the fall quarter in order to finish three quarters.

## **First Quarter**

AGGEN	156	Equipment Operation and Maintenance	. 5
AGHRT	110	Fall Landscape Plant Materials	. 5
AGHRT	126	Computer Essentials for Environmental Sciences	. 2
AGHRT	171	Agricultural Leadership Training	. 1
APLED	112	Applied Mathematics <sup>1</sup>	. 3
APLED	121	Applied Written Communication <sup>1</sup>	. 4
		Total	20
Second	Quar	ter	
AGGEN	151	Shop Skills	. 4
AGHRT	102	Pesticides and Fertilizer Application Equipment	. 4
AGHRT	104	Principles of Pest Management	. 5
AGHRT	116	Green Industry Business Management	. 5
AGHRT	172	Agricultural Leadership Training	. 1
		Total	19

## 109

## **Third Quarter**

## 59 credits are required for the Certificate.

<sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

## LAW PRE-MAJOR

## **AA-DTA: SCC, SFCC**

Law has been an important element of every civilization in the history of humans. It is a profession for those who have good reasoning powers, the ability to express themselves clearly and concisely, and an understanding of their fellow human beings.

Students planning to enter law school usually must complete a fouryear baccalaureate degree with an emphasis from one of a number of areas, such as political science, business administration, history or communications.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	. 90
Total	90

## 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## LEGAL ADMINISTRATION

## AAS: SCC

Legal Administration is a career path in which the individual is typically employed in a supervisory role in a law office or other legal setting (court administration, etc.). The role requires management, financial, accounting, computer information systems, human resource management and legal knowledge. Experience and/or training in administration, marketing, accounting, business management, or law is preferred, but is not a mandatory prerequisite.

If interested in pursuing a four-year degree, ask a counselor or faculty adviser about transfer articulation agreements.

## AAS

## **First Quarter**

ENGL&	101	English Composition I
MATH	099	Intermediate Algebra
MMGT	101	Principles of Management
		Total
Second	Qua	rter
ACCT&	201	Prin of Accounting I
CMST	287	Business and Professional Communication
LA	218	Employment Law
MMGT	211	Marketing
		Total
Third O	uarte	21
ACCT&	202	Prin of Accounting II 5
CATT	134	Presentation Graphics
MMGT	231	Human Resource Management
		Total
Fourth	Ouar	ter
ACCT	162	Business Tax Accounting 1
BUS	280	Human Relations in Business 5
CIS	240	Introduction to Networks
LA	245	Supervised Legal Work Experience <sup>1</sup>
		Total

## **Fifth Quarter**

BUS LA LA	217 240 245	Business Statistics5Special Issues Seminar5Supervised Legal Work Experience.4
		Approved Business Electives.         3-5           Total.         17-19
Sixth Q	uarte	er
CATT	138	Microsoft Excel I
CATT	139	Microsoft Excel II
LA	230	Insurance Law

## 

## 90-92 credits are required for the AAS.

## APPROVED BUSINESS ELECTIVES

ACCT	141	OuickBooks
BUS	120	International Business
CATT	241	Microsoft Project
MMGT	181	Leadership Training-DEC 1-5
MMGT	182	Leadership Training-DEC 1-5
MMGT	183	Leadership Training-DEC 1-5
MMGT	191	Leadership Training-DEC 1-5
MMGT	192	Leadership Training-DEC 1-5
MMGT	193	Leadership Training-DEC 1-5
MMGT	242	Project Management2.5
1 1 1 + + + = 1	-62 -	white of MMCT 100 (Commissed Valuation Francisco) was

<sup>1</sup> A total of 3 credits of MMGT 100 (Supervised Volunteer Experience) may be used to substitute a portion of LA 245.

<sup>2</sup> ACCT 141 has a prerequisite of ACCT 151 or permission of instructor.

<sup>3</sup> CATT 241 has a prerequisite of CIS 110 or equivalent experience is recommended.

## LEGAL ADMINISTRATIVE ASSISTANT

## AAS, Certificate: SCC

The Legal Administrative Assistant program combines a well-balanced academic program with expert legal office instruction, giving the student the diversified training and background needed to hold a position of responsibility and importance in many areas of the legal world. This program helps raise the legal office skills of the student to a professional level, gives the student a technical background through completion of technical skill courses and an academic background, provides the student a mature understanding of professional responsibilities, and provides for minimum additional on-the-job training.

To enter the certificate program, students must pass a keyboarding test with 40 wpm. A 2.0 grade or better in each class is required for an A.A.S. degree or Certificate.

## AAS First Quarter

	,	-	
BT	102	Document Processing <sup>1</sup>	5
BT	105	Basic Grammar for Business II	5
BT	151	Business Student Preparation	5
		Total	. 15
Second	d Qua	rter	
BT	109	Business Communications	5
BT	165	Word Processing.	5
CATT	102	Introduction to Outlook	2.5
		Business Elective	. 3-5
		Total	-17.5
Third O	Quart	er	
BT	160	Job Preparation Techniques	3
BT	231	Office Procedures	5
BT	235	Machine Transcription	5
		Electives - Legal Administrative Assistant <sup>2</sup>	5
		Total	18
Fourth	Quar	rter	
BT	272	Business Correspondence	5
LSEC	236	Legal Terminology	5
LSEC	239	Legal Formatting <sup>3</sup>	5
		Total	. 15

# PROGRAM OUTLINES

## **Fifth Quarter**

LSEC	216	Legal Office Procedures <sup>4</sup>
LSEC	237 244	Legal Machine Transcription <sup>5</sup>
		Total

## Sixth Quarter

BT	250	Information Technology.	5
LA	105	Washington and Idaho Court Rules	3
LSEC	233	Legal Office Practice	5
LSEC	285	Legal Office Internship	3
		Total	16

## 94.5-96.5 credits are required for the AAS.

## CERTIFICATE

## **First Quarter**

BT	109	Business Communications <sup>6</sup>
LSEC	236	Legal Terminology 5
LSEC	239	Legal Formatting <sup>7</sup> 5
		Business Elective
		Total

## **Second Quarter**

BT	231	Office Procedures <sup>8</sup>	5
LSEC	237	Legal Terminology	5
LSEC	244	Legal Machine Transcription <sup>5</sup>	5
		Total	5

## **Third Quarter**

LA	105	Washington and Idaho Court Rules 3
LSEC	216	Legal Office Procedures <sup>4</sup> 5
LSEC	233	Legal Office Practice
LSEC	285	Legal Office Internship 3
		Total

## 49-51 credits are required for the Certificate.

## **BUSINESS ELECTIVE**

BUS	103	Basic Business Math and Electronic Calculators	5
BUS	102	Math Skills for Business	3

## **ELECTIVES - LEGAL ADMINISTRATIVE ASSISTANT**

ACCT	151	College Accounting I
ACCT&	201	Prin of Accounting I 5
BT	201	Information Processing 5
BUS	204	Introduction to Law
BUS	280	Human Relations in Business 5
CATT	120	Microsoft Word I
CATT	121	Microsoft Word II
CATT	122	Microsoft Access I
CATT	123	Microsoft Access II2.5
CATT	138	Microsoft Excel I2.5
CATT	139	Microsoft Excel II
CATT	190	Introduction to PowerPoint
CATT	191	Advanced PowerPoint
CATT	222	Advanced Microsoft Access I2.5
CATT	223	Advanced Microsoft Access II2.5
CATT	238	Advanced Microsoft Excel I2.5
CATT	239	Advanced Microsoft Excel II
CMST&	210	Interpersonal Communication
MSEC	101	Medical Terminology and Anatomy

<sup>1</sup> Students are placed in formatting courses according to their ability. Students who are given advanced standing in keyboarding classes will need to take business electives to meet the credits required for graduation.

- <sup>2</sup> Electives must be taken from the following list of courses: ACCT& 201 or ACCT 151, BT 201, BUS 204, 280, MSEC 101, CMST& 210. Other unnamed 5-credit courses may be substituted with approval of the program coordinator.
- <sup>3</sup> Prerequisites for legal assistant students taking these classes as part of the legal assistant program are keyboarding skills of 40 wpm, BT 102, 109 and 165 with a grade of 2.0 or better, or with permission of the program coordinator.
- <sup>4</sup> LSEC 239 and enrollment in the legal administrative assistant program or permission of the instructor.
- <sup>5</sup> BT 235 and LSEC 239 with a grade of 2.0 or better or permission of the instructor.

- <sup>6</sup> Must be taken during the first quarter concurrent with LSEC 239 and 249.
   <sup>7</sup> Prerequisites for legal assistant students taking these classes as part of the
- legal assistant program are keyboarding skills of 40 wpm, BT 102, 109 and 165 with a grade of 2.0 or better or with permission of the program coordinator.
- <sup>8</sup> This course may be substituted with any related course, a combination of courses or prior office experience approved by the program coordinator.

## LEGAL INFORMATION PROCESSING

## **Certificate: SCC**

This program prepares students for legal office positions where the primary duties are the operation of disk-controlled computer equipment; typing and proofreading manuscripts, tables, reports, correspondence, and other documents from dictating machines or rough drafts; correcting errors in existing documents; and consulting with persons initiating job requests. A minimum grade of 2.0 in each class is required for a Certificate.

## CERTIFICATE

## First Quarter

BT BT BT LSEC	102 109 151 236	Document Processing5Business Communications5Business Student Preparation5Legal Terminology5Total20
Second	Qua	rter
BT CATT LSEC LSEC	231 102 237 239	Office Procedures.       5         Introduction to Outlook       2.5         Legal Terminology       5         Legal Formatting <sup>1</sup> 5         Total       17 5
Third O	)uarte	er
BT BT LSEC	201 272 216	Information Processing5Business Correspondence5Legal Office Procedures5Business Elective3-5Total18-20
Fourth	Quar	ter
BT BT BT	165 202 250	Word Processing.5Advanced Information Processing.5Information Technology.5

## **BUSINESS ELECTIVE**

LSEC

BUS	102	Math Skills for Business	. 3
BUS	103	Basic Business Math and Electronic Calculators	. 5

73.5-75.5 credits are required for the Certificate.

<sup>1</sup> Prerequisites for enrollment in this class are BT 102, 109 and 165, and a keyboarding speed of 40 wpm, or permission of the program coordinator.

## LEGAL NURSE

## **Certificate: SCC**

The primary role of the legal nurse consultant is to evaluate, analyze, and render informed opinions on the delivery of health care and the resulting outcomes. The legal nurse consultant practices this nursing specialty in a variety of settings, including law offices, government offices, insurance companies, risk management, or as a self-employed practitioner. The nurse serves as a liaison between the legal and health care communities. This regionally respected ABA approved program is typically awarded upon completion of 62-67 credits of required course work (depending on math requirements).

**Note:** A legal nurse graduate does not receive a license to practice law; thus performing legal work directly for the public or giving legal advice directly to the public constitutes the unauthorized practice of law.

Program Requirements: To enter the Legal Nurse Certificate program, students must have completed an AAS degree in nursing, and possess a current state license and at least two years' nursing experience with no more than one year since last employed in the field. Substitutions for prerequisites and program courses may be made and/or waived by the program coordinator.

Certificate Requirements: The certificate requires 10 credits of general education courses and 20 credits of basic law courses, plus 8 credits of LA 245, 24 credits of legal specialty courses and 5 credits of other courses if the student does not select from the math options portion of the general education courses. Students with at least one or more years of current legal experience under the direct supervision of an attorney may, with the approval of the program coordinator, have a part of LA 245 waived and instead substitute an equal number of additional legal specialty courses credits.

Students should begin early to meet the prerequisites for LA 120 which are LSEC 239 or 249 and a college-level computer course recommended to be selected from the BT, CIS or LSEC departments' offerings. A grade of 2.0 or higher in each class (including prerequisites) are required for this certificate.

## CERTIFICATE

Total	62-67
Supervised Legal Work Experience	8
Specialty Courses	24
Social Science or Humanities Course <sup>1</sup>	5
Other Courses	0-5
General Education Courses	5
Basic Courses	20

## 62-67 credits are required for the Certificate.

## **BASIC COURSES**

LA	100	Legal Careers Orientation			
LA	102	Introduction to Legal Nursing			
LA	105	Washington and Idaho Court Rules			
LA	110	Legal Research and Writing			
LA	118	Instrument Drafting			
LA	120	Law Office Computing 5			
LA	130	Legal Ethics 1			
LA	135	Professional Effectiveness 1			
GENERA		UCATION COURSES			
MATH&	: 141	Precalculus I			
OTHER	COUR	SES			
BUS	104	Business Mathematics			
SPECIAL	SPECIALTY COURSES				
BUS	204	Introduction to Law			
LA	218	Employment Law			
LA	219	Criminal Law and Procedure			

LA	220	Torts	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	240	Special Issues Seminar 1-1	0
LA	285	Legal Office Internship	3

## SUPERVISED LEGAL WORK EXPERIENCE

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LA 245 Supervised Legal Work Experience...... 8
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- <sup>1</sup> See program coordinator for an additional list of courses.
- <sup>2</sup> Prerequisite is ENG& 101.
- <sup>3</sup> Prerequisites are LSEC 239 or 249 and a college-level computer course recommended to be selected from the BT, CIS or LSEC departments' offerings.
- <sup>4</sup> Only needed if the student chooses BUS 104 as his/her math requirement. (Not required if MATH& 141 or higher is chosen for the math requirement.)
- <sup>5</sup> Prerequisites for all Legal Specialty Courses: LA 100, 102, 110.
- <sup>6</sup> Because each course is different, LA 240 may be repeated as frequently as desired and all credits received may be applied toward the 24 specialty credit requirement for degree.
- <sup>7</sup> Maximum of 3 credits of internship may be applied toward this degree.

<sup>8</sup> Students must complete 8 credits.

## **LEGAL RECEPTIONIST**

## **Certificate: SCC**

This program prepares students for office positions in which the primary duties are performing general legal office work; greeting, scheduling and routing legal clients; and answering the telephone. After completing this program, students may choose to take additional courses for an advanced certificate or degree in the Legal Administrative Assistant program. A minimum grade of 2.0 in each class, is required for a certificate.

## CERTIFICATE

## First Quarter

BT	102	Document Processing	5
BT	109	Business Communications	5
BT	151	Business Student Preparation	5
LSEC	236	Legal Terminology	5
		Total	20
Second	l Qua	rter	
BT	165	Word Processing.	5
CATT	102	Introduction to Outlook	2.5
LSEC	237	Legal Terminology	5
LSEC	239	Legal Formatting <sup>1</sup>	5
		Total	.5
Third Q	Quart	er	
BT	231	Office Procedures <sup>2</sup>	5
LSEC	216	Legal Office Procedures	5
LSEC	285	Legal Office Internship	. 3
		Business Elective	-5
		Total	18

## 53.5-55.5 credits are required for the Certificate.

## **BUSINESS ELECTIVE**

BUS	102	Math Skills for Bus	iness				 3
BUS	103	Basic Business Mat	h and Ele	ectronic	Calculate	ors	 5

<sup>1</sup> Prerequisites for enrollment in this class are keyboarding speed of 40 wpm and BT 165 and 109 with a grade of 2.0 or better, or permission of the program coordinator.

<sup>2</sup> This course may be substituted with any related course, a combination of courses, or prior office experience approved by the program coordinator.

## LIBRARY AND INFORMATION SERVICES

## AAS, Certificate: SFCC

The Library and Information Services program offers an online AAS degree and an online certificate for library support staff and paraprofessionals who wish to start their career as a library staff member or who wish to further their career development. Students are trained to work in all areas of library service. The program gives students exposure to a broad range of theory and practice common in most libraries. The program at SFCC follows the American Library Association guidelines for library support staff.

Students can enter the program in any quarter; however the recommended course sequence begins fall quarter and library science courses should be taken in sequential order to complete the program as listed in the career planning guide. Library science classes are online classes. Electives for the AAS degree program can be taken online or in a traditional classroom. Students engage in online learning and are required to take work experience/internship classes to reinforce hands-on training. The LMLIB 267 COOP internship class is a critical component of the degree program as it provides hand on training to reinforce classroom instruction. This class may be taken more than once during fall, winter or spring quarter. Very few of the library science classes require students to purchase textbooks.

The three quarter online certificate program targets persons interested in working in K-12 library settings who do not wish to pursue an AAS degree. Graduates of this program may gain employment as library support staff or paraprofessionals in libraries.

The AAS Educational Paraprofessional School Library Media Technician Emphasis Degree: Students in this degree program can seek employment as paraprofessionals in the classroom or as K-12 library staff.

Consult the **Education Paraprofessional**, **Special Education** career planning guide for more information.

AAS		
First Qu	ıarte	r
LMLIB LMLIB	100 115	Introduction to Library Organizations and Careers 3 Introduction to Library Organizational Systems 5
		Computer Skills Electives <sup>1</sup>
		Total.
Second	Oua	rter
LMLIB	116	Introduction to Circulation Systems and Services 5
LMLIB	125	School Libraries and Media Centers
		Total
Third Q	uart	er
LMLIB	117	Access Services, Customer Service and Collection Maintenance
LMLIB	135	Children's Literature and Library Services
		Total
Fourth	Quar	ter
LMLIB	210	Technical Services I: Acquisitions and Materials Processing
		Approved Electives <sup>4</sup>
		Computer Skills Electives <sup>1</sup>
		Total 15-17
	to	
	<b>Jarte</b>	Tachnical Services II. Cataloging
LINILID	220	Approved Electives <sup>4</sup>
		Total 13-15
Sivth O	uarte	
IMIB	222	Reference Services and Outreach
I MI IB	266	Cooperative Education Seminar
LMLIB	267	Cooperative Education Work Experience <sup>5</sup>
LIVILID	207	Total.
90-94 c	redit	s are required for the AAS
CERTIFI	CAIE	
ALL LM	LIB C	LASSES OFFERED ONLINE
<b>SCHOO</b>	L LIB	RARY MEDIA TECHNICIAN
First Qu	ıarte	r
EDUC&	204	Exceptional Child <sup>6</sup> 5
LMLIB	100	Introduction to Library Organizations and Careers 3
LMLIB	115	Introduction to Library Organizational Systems 5
		Total
Second	Qua	rter
LMLIB	125	School Libraries and Media Centers5
LMLIB	126	School Library Technology and Services for Curriculum Support.
LMLIB	220	Technical Services II: Cataloging <sup>10</sup>
Third A	112#	
FDUC	JED	Social/Emotional Davalonment <sup>7</sup>
IMIR	202 135	Children's Literature and Library Services
I MI IR	266	Cooperative Education Seminar
LMLIB	267	Cooperative Education Work Experience

## Total.1541 credits are required for the Certificate.

## **COMMUNICATION SKILLS ELECTIVES**

BT	107	Business Communications 3
BT	108	Business Communications 3
BT	272	Business Correspondence 5
ENGL&	101	English Composition I 5
ENGL&	102	Composition II
ENGL&	235	Technical Writing 5

CAPPS	102	Introduction to Office 1
CAPPS	102	Beginning Windows Operating System
CAPPS	110	Word
CAPPS	112	Excel
CAPPS	114	Access
CAPPS	116	PowerPoint
CAPPS	120	Outlook
GENST	108	Learning for the 21st Century
GENSI	115	Business Computer Lice
IS	142	Hardware Fundamentals
IS	143	Operating System Fundamentals
IS	160	Internet Fundamentals
LMLIB	126	School Library Technology and Services for Curriculum
		Support
LEADER	SHIP	SKILLS/HUMAN RELATIONS ELECTIVES
BUS	105	Principles of Leadership 3
BUS	280	Human Relations in Business
Н5 ММСТ	136	Improving Interpersonal Communication
MMGT	231	Human Resource Management 5
PSYC&	100	General Psychology
SOC&	101	Intro to Sociology
<sup>1</sup> Select of	course	s from Computer Skills Electives for a total of 10 credits.
<sup>2</sup> Select	two oi	r three courses for a total of 10-11 credits in Communication
<sup>3</sup> Select o	one coi	urse for a total of 3-5 credits in Computation Skills. Any online
MATH	I cour	se may be substituted.
<sup>4</sup> Studen	ts ma	y select elective courses from an Approved Electives list in order
to reac	h the r	equired program credits. Approved electives include courses in
MGM	T 223	. SPAN. See department for complete list.
<sup>5</sup> Studen	ts are	required to take 6 credits of Cooperative Education Work Experi-
ence. S	tuden	ts may take 1-6 credits in any quarter with approval of instructor
or take	6 crea	dits in the sixth quarter (198 hours of work experience).
• EDUC	8 204	a may be substituted with EDUC& 202.
annroz	2520 ved hu	r any ilbrary science (LMLIB) course, CAPPS course or courses instructor may be taken for a total of 5 credits
<sup>8</sup> Studen	ets ma	u select ENGL& 101 or BT 107 and 108 for 5-6 credits from
Comm	unical	tion Skills.
<sup>9</sup> Studen	ts ma	y select either BT 100 or BT 101.
<sup>10</sup> LMLI	B 220	may be substituted with LMLIB 116.
I		/ LIIKIK   // KI/   L/ LIKI/1  / 1/ 1/
l	MA	CHINISI/CNC IECHNOLOGY

**Machinist/CNC Technology AAS Degree:** The Machinist/CNC Technology program is designed to provide students with the skills necessary to gain employment in the manufacturing industry. The first year of the program will focus on skills used in a modern machine shop: machine shop math, blueprint reading, and conventional machine tool theory and lab. The last year offers advanced conventional machining and specialized training in CNC theory and procedures and quality control.

Each required course for graduation must be completed with a grade of 2.0 or higher before proceeding to the next quarter.

**Machinist/CNC Certificate:** This four-quarter evening Machinist/CNC Certificate program prepares students for employment in the machining industry. Basic manual machine operation with emphasis on the safe operation of a variety of machine tools is an integral component of this program. Students receive intensive training in both theory and application of machining skills and CNC machining skills.

## 113

First Q	uarte	r
APLED	112	Applied Mathematics <sup>1</sup> 3
MACH	113	Beginning Blueprint 2
MACH	114	Introduction to Machine Shop I 5
MACH	115	Introduction to Machine Tools
МАСН	116	Introduction to Machine Shop II
		Total
Second	Qua	rter
CIS	105	Computer Fundamentals for Vocations 1 <sup>2</sup> 2
SFIY	111	Industrial First Aid 2
MACH	123	Machine Tool Operations I
MACH	124	Blueprint II
MACH	125	Machine Shop Math I
MACH	126	Machine Iool Operations II
rhind O		10ldl
	101	Applied Written Communication1
MACH	121	Machine Tool Operations III 7
MACH	134	Machine Shop Math II
MACH	135	Blueprint III 2
MACH	136	Machine Tool Operations IV 7
1011	100	Total
ourth	Ouar	rter
AGGEN	I 157	Arc Welding 1
APLED	123	Leadership Skills for Business and Industry <sup>1</sup> .
MACH	244	Blueprint IV
ACH	247	CNC Theory
MACH	248	CNC Lab
MACH	262	CNC Programming
		Total
ifth Q	uarte	r
APLED	125	Employment Preparation <sup>1</sup>
MACH	249	Quality Control
MACH	250	CNC Production Theory 5
ЛАСН	251	CNC Production Lab
MACH	254	BlueprintV 2
		Total
Sixth Q	uarte	21'
MACH	201	Manufacturing Economics 1
MACH	202	Manufacturing Resource Management 1
MACH	243	Machine Tool Operations V <sup>3</sup> 8
MACH	246	Machine Tool Operations VI <sup>3</sup> 5
		Total
20 cre	dits a	re required for the AAS.
ERTIF	ICATE	
irst O	uarte	r
APLED	112	Applied Mathematics <sup>1</sup>
MACH	113	Beginning Blueprint
/ACH	114	Introduction to Machine Shop I
ЛАСН	247	CNC Theory
		Total
econd	l Qua	rter
ЛАСН	116	Introduction to Machine Shop II
MACH	124	Blueprint II
ЛАСН	250	CNC Production Theory
ЛЕТ	103	Introduction to Computers for Technology
		Total
hird O	Juart	er
/ACH	123	Machine Tool Operations I6
MACH	135	Blueprint III
MACH	257	Computer Aided Machining
		Total
ourth	Ouar	'ter
	125	Employment Preparation <sup>1</sup>
ЛАСН	258	Advanced Computer Aided Machining
(ACH	261	CNC Production Applications
1	-01	Total 14

## 56 credits are required for the Certificate.

- <sup>1</sup> This related education requirement may be met by any course or combination f courses approved by the department dean.
- CIS 105 may be substituted with CIS 110.
- *This course may be substituted with MACH 266 and 267 or 288 (no seminar).*

## MANAGEMENT

## AAS, Certificate: SCC

e challenge of management! It takes a special kind of person with a ecial knack to be a good business manager. Over 60 percent of the orkforce in Spokane is employed in a distributive occupation. This eates a big demand for persons with training as middle managers or nior executives.

e management programs at SCC and SFCC are designed to give an lividual on-the-job work experience while learning the basic prinles of business management. Students are given credit for approved ork experience.

purses in the program include management, business law, project nagement, computer applications and human relations. In addition the academic courses, there is opportunity for team work and leaderp experience through participation in Delta Epsilon Chi, an affiliate Distributive Education Clubs of America.

students graduating from these programs must have a minimum de average of 2.0 on each of the required management, accounting, pnomic, and business courses and a cumulative minimum grade point erage on all required courses in the program.

## ۱S

Tota	al	. 92
Reco	ommended Business Electives <sup>1</sup>	. 14
Man	nagement Option Requirements	. 27
Basic	c Business Core	. 51

credits are required for the AAS.

## RTIFICATE

## rst Quarter

BUS& BUS MMGT	101 103 223	Intro to Business.5Basic Business Math and Electronic Calculators5Customer Service3Electives Group A,B, or C3-5
		Total 16-18
Second	Qua	rter
ACCT	151	College Accounting I <sup>5</sup> 5
CIS	110	Introduction to Computer Applications <sup>2</sup>
CMST&	101	Introduction to Communication
MMGT	288	Cooperative Education Work Experience (No Seminar) 1
		Total
Third Q	uarte	21
BT	272	Business Correspondence <sup>3</sup> 5
MMGT	101	Principles of Management 5

		Total
		Recommended Business Electives <sup>4</sup> 3-5
		Electives Group A,B, or C 5
IMGT	288	Cooperative Education Work Experience (No Seminar) 1
IMGT	101	Principles of Management 5
Г	272	Business Correspondence <sup>3</sup> 5

## -55 credits are required for the Certificate.

## SIC BUSINESS CORE

ACCT	151	College Accounting I
BUS&	101	Intro to Business
BUS	104	Business Mathematics 5
BUS	280	Human Relations in Business 5
CIS	110	Introduction to Computer Applications 5
CMST&	101	Introduction to Communication 5
econ	100	Fundamentals of Economics 5
ENGL&	101	English Composition I 5
ENGL&	102	Composition II
MMGT	100	Supervised Volunteer Experience 1
MMGT	101	Principles of Management 5

## **PROGRAM OUTLINES**

## 114

AAS

## 

GROUP		IKKETING
CATT	241	Microsoft Project2.5
MMGT	211	Marketing
MMGT	218	Fundamentals of Advertising
MMGT	242	Project Management2.5
GROUP	B MA	NAGEMENT
BT	260	Administrative Office Management
BUS&	201	Business Law
CATT	120	Microsoft Word I1-2.5
MMGI	205	Small Business Planning
WINGT	231	
GROUP	C FIN	
ACCT	152	College Accounting II
BUS	100	Money Management
DU3	217	Business Statistics
MANAG	EME	NT OPTION REQUIREMENTS
BUS&	201	Business Law
CALL	241	Microsoft Project
MMGT	231	Project Management
MMGT	242 288	Cooperative Education Work Experience (No Seminar) 12
DECOM		
ACCT	150	College Accounting II
RUS	100	College Accounting II
BUS	100	Introduction to Electronic Calculators
BUS	120	International Business 5
BUS	204	Introduction to Law
BUS	217	Business Statistics
ECON&	: 201	Micro Economics
ECON&	: 202	Macro Economics
MMGT	181	Leadership Training-DEC 1-5
MMGT	182	Leadership Training-DEC 1-5
MMGT	183	Leadership Training-DEC 1-5
MMGT	191	Leadership Training-DEC 1-5
MMGT	192	Leadership Training-DEC 1-5
MMGI	193	Leadership Iraining-DEC 1-5
MMGI	205	Small Business Planning
MMGT	211 212	Retailing 5
MMGT	212	Fundamentals of Advertising 5
MMGT	223	Customer Service
MMGT	245	Introduction to Consulting

<sup>1</sup> Other business courses may be selected with the approval of the department adviser.

<sup>2</sup> Keyboarding skills are required.

<sup>3</sup> BT 272 may be substituted with ENGL& 101. BT 109 is a prerequisite.

<sup>4</sup> Select BT 101 or a recommended business electives course.

<sup>5</sup> ACCT& 201 may be taken in place of ACCT 151.

<sup>6</sup> BUS 103 or proficiency test is required.

<sup>7</sup> ENGL& 102 may be substituted with BT 272 or ENGL& 235.

<sup>8</sup> MMGT 181 may be substituted with MMGT 182, 183, 191, 192 or 193.

## MANAGEMENT

## **AAS, Certificate: SFCC**

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. Over 60 percent of the workforce in Spokane is employed in a distributive occupation. This creates a big demand for persons with training as middle managers or junior executives.

The management programs at SCC and SFCC are designed to give an individual on-the-job work experience while learning the basic principles of business management. Students are given credit for approved work experience.

Courses in the program include management, marketing, salesmanship, advertising and human relations. In addition to the academic courses, there is opportunity for teamwork and leadership experience through participation in Delta Epsilon Chi, an affiliate of Distributive Education Clubs of America.

## AAS **First Quarter**

BT BUS& BUS	107 101 103	Business Communications <sup>1</sup>
		Total14
Second	Qua	rter
ACCT& BT BUS BUS MMGT	201 108 105 108 267	Prin of Accounting I.       5         Business Communications <sup>1</sup> .       3         Principles of Leadership       3         eBusiness       2         Cooperative Education Work Experience <sup>4</sup> 2         Total.       15
Third Q	uart	er
BT BUS MMGT	272 280 101	Business Correspondence5Human Relations in Business5Principles of Management5Computer Elective (Information Systems)1Total16
Fourth	Quar	ter
BUS& CMST& ECON	201 101 100	Business Law    5      Introduction to Communication.    5      Fundamentals of Economics.    5      Total.    15
CRMGT MMGT MMGT	140 223 231	Financial Statement Analysis       3         Customer Service       3         Human Resource Management       5         Business Electives       3         Computer Elective (Information Systems)       1         Total       15
Sixth O	uarte	er
CRMGT MMGT	110 211	Introduction to Finance3Marketing5Business Electives7Total15
90 cred	its aı	re required for the AAS.
CERTIF	ICATE	
First Q	uarte	r
BUS&	101	Intro to Business

		Total	17
		Elective Group D - Computer	1
		Elective Group A, B or C	5
MMGT	111	Mid-Management Seminar	1
BUS	103	Basic Business Math and Electronic Calculators	5
BUS&	101	Intro to Business.	5

Second Quarter

ACCT&	201	Prin of Accounting I 5
BUS	108	eBusiness
CMST&	101	Introduction to Communication5
MMGT	112	Mid-Management Seminar1
		Elective Group A, B or C 4
		Total
Third Q	uarte	24
DTT	0 0	

		Iotal
		Total 16
		Elective Group D - Computer
		Elective Group A, B or C 5
MMGT	101	Principles of Management
BI	272	Business Correspondence

50 credits are required for the Certificate.

## **ELECTIVE GROUP A - MARKETING**

FMDSE	150	Principles of Retail Merchandising
FMDSE	224	Principles of Retail Promotion
MMGT	211	Marketing
MMGT	218	Fundamentals of Advertising
MMGT	220	Professional Sales

## 115

## **ELECTIVE GROUP B - MANAGEMENT**

CAPPS	102	Introduction to Office 1
CAPPS	110	Word 1-8
CAPPS	112	Excel 1-8
CAPPS	114	Access
CAPPS	116	PowerPoint

- <sup>1</sup> May substitute ENGL& 101 for BT 107 and 108.
- <sup>2</sup> May substitute BUS 217.
- <sup>3</sup> May substitute BUS 105 for MMGT 181, 182, 183.
- <sup>4</sup> May substitute MMGT 111, 112 or 113 for MMGT 267.

## MANICURIST

## **Certificate: SCC**

Students enrolling in the Manicurist Certificate program will receive training in all aspects of nail care. Areas of emphasis include the application and removal of artificial nails and nail tips; various manicure and pedicure treatments; hand and feet massage techniques; and all safety and sanitation measures involved with these processes. Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination in Manicuring.

Program Requirements:

- Students must maintain a 2.1 in all professional classes to complete the program and pass exit exams with a minimum score of 2.5 to be prepared to take the Washington state licensing exam for manicurist.
- Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination in Manicuring.

Physical Requirements:

- Normal or corrected vision
- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to sit for extended periods of time

## CERTIFICATE

## **First Quarter**

Second	l Qua	rter
		Total
ISFTY	111	Industrial First Aid
COS	119	Advanced Manicuring Concepts 1
COS	114	Manicuring Applications I <sup>1</sup>
COS	113	Manicuring Concepts I 4

		Total	1
COS	129	Advanced Manicuring Applications 2	
COS	116	Manicuring Applications II <sup>1</sup> 10	
COS	115	Manicuring Concepts II 4	

## 33 credits are required for the Certificate.

<sup>1</sup> COS 114 and 116 may be substituted with COS 288 with the permission of the instructor. Washington State licensure requirements allow up to 10% of the student academic instruction to be met at an off campus site.

## MARKETING

## AAS: SCC

The Marketing program is designed for students who want to specialize in fields involved with the distribution of goods and services from producer to consumer. Students take core business courses followed by marketing specialty courses such as marketing, retailing, advertising and project management. Students are also required to gain work experience as part of the program. There is opportunity for teamwork

and leadership experience through participation in Delta Epsilon Chi, an affiliate of Distributive Education Clubs of America.

All students graduating from this program must have a minimum grade of 2.0 on each of the management; accounting; economics; and general business required courses. Students must also have a 2.0 cumulative grade point average on all required courses in the program.

## AAS

	Recommended Business Electives <sup>1</sup>	Marketing Option Requirements Recommended Business Electives <sup>1</sup>
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## 91 credits are required for the AAS.

## **BASIC BUSINESS CORE**

ACCT	151	College Accounting I
BUS&	101	Intro to Business
BUS	104	Business Mathematics
BUS	280	Human Relations in Business
CIS	110	Introduction to Computer Applications5
CMST&	101	Introduction to Communication
econ	100	Fundamentals of Economics
ENGL&	101	English Composition I
ENGL&	102	Composition II
MMGT	100	Supervised Volunteer Experience
MMGT	101	Principles of Management

## MARKETING OPTION REQUIREMENTS

BUS	120	International Business
BUS	140	International Marketing 3
MMGT	211	Marketing
MMGT	212	Retailing
MMGT	218	Fundamentals of Advertising
MMGT	223	Customer Service
MMGT	288	Cooperative Education Work Experience (No Seminar) 8

## **RECOMMENDED BUSINESS ELECTIVES**

BUS	100	Money Management
BUS&	201	Business Law
BUS	204	Introduction to Law
CATT	241	Microsoft Project2.5
MMGT	181	Leadership Training-DEC 1
MMGT	242	Project Management2.5

- <sup>1</sup> Other business courses may be selected with the approval of the department adviser.
- <sup>2</sup> ACCT& 201 may be taken in place of ACCT 151.
- <sup>3</sup> BUS 103 or proficiency test is required.
- <sup>4</sup> Keyboarding skills required.
- <sup>5</sup> ENGL& 102 may be substituted with BT 272 (BT 109 is a prerequisite) or ENGL& 235.
- <sup>6</sup> MMGT 181 may be substituted with MMGT 182,183,191,192 or 193.

## MARKETING

## AAS: SFCC

The Marketing program is designed for students who want to specialize in fields involved with the distribution of goods and services from producer to consumer. Students take core business courses followed by marketing specialty courses such as marketing, retailing, advertising and salesmanship. Students are also required to gain work experience as part of the program.

## AAS

## **First Quarter**

Second	0	rtor
		Total
		Computer Elective (Information Systems)1
BUS	108	eBusiness 2
BUS&	101	Intro to Business
BT	107	Business Communications <sup>1</sup>
ACCT&	201	Prin of Accounting I

## ona vu

BT	108	Business Communications <sup>1</sup>	3
BUS	103	Basic Business Math and Electronic Calculators <sup>2</sup>	5

PROGRAM OUTLINES

BUS&	201	Business Law
CRMGT	140	Financial Statement Analysis 3
MMGT	111	Mid-Management Seminar <sup>3</sup> 2
		Total
Third Q	uarte	er
BT	272	Business Correspondence
BUS	280	Human Relations in Business <sup>4</sup>
CRMGT	110	Introduction to Finance
MMGT	211	Marketing
		Total
Fourth	Quar	ter
CMST&	101	Introduction to Communication
FMDSE	150	Principles of Retail Merchandising5
FMDSE	224	Principles of Retail Promotion
		Total
Fifth Qu	ıarte	r
BUS	140	International Marketing
ECON	100	Fundamentals of Economics <sup>5</sup> 5
MMGT	181	Leadership Training-DEC <sup>6</sup> 3
MMGT	220	Professional Sales
		Total
Sixth Q	uarte	er

MMGT	223	Customer Service	. 3
		Total.	10

## 91 credits are required for the AAS.

- <sup>1</sup> May substitute ENGL& 101 for BT 107 AND 108.
- May substitute BUS 217 for BUS 103.
- <sup>3</sup> May substitute Work Experience.
- <sup>4</sup> May substitute HS 136.

<sup>5</sup> *May substitute ECON& 202.* 

May substitute MMGT 182, MMGT 183 or BUS 105 for MMGT 181.

## **MASSAGE THERAPY**

## **AAS, Certificate: SCC**

Massage therapists provide relief and improved health and well-being to clients through the application of manual techniques for manipulating skin, muscles and connective tissues.

Massage safety, client counseling, practice management, applicable regulations and professional standards and ethics are presented.

Students must earn a grade of 2.0 or higher in each class in order to proceed to the next quarter.

Program Prerequisites:

- Washington State Patrol Background Check
- Ability to lift 50 pounds
- Computer literacy or CIS 110
- Appropriate scores in one of the following tests: ASSET or COM-PASS

Admission Prerequisites: Any transfer courses must be accredited education institutions, must have been taken within the last five years, with a grade of 2.0 or better.

## AAS

BIOL&	160	General Biology w/Lab 5
CHEM&	: 121	Intro to Chemistry: w/Lab5
CMST&	101	Introduction to Communication
PSYC&	100	General Psychology5
SOC&	101	Intro to Sociology
		Communications or Humanities Elective <sup>1</sup> 10
		Math/Science Elective <sup>1</sup> 5
		Social Science Elective <sup>1</sup>
		Total
First Qu	iarte	r
BUS	102	Math Skills for Business
HED	108	Human Anatomy
MASS	110	Introduction to Massage Therapy

## **Second Quarter**

MASS

134

136

138

142

144

146

148

**Fourth Quarter** 

CMST&	210	Interpersonal Communication
HED	125	Medical Terminology 5
ISFTY	111	Industrial First Aid
MASS	120	Massage Technique I 4
MASS	122	Body Mechanics I 1
MASS	124	Kinesiology I 2
MASS	126	Hydrotherapy I 1
SURG	105	Blood-borne Pathogens and HIV/AIDS 1
		Total
Third Q	uarte	er
ENGL&	101	English Composition I
HED	109	Human Physiology and Disease
HED	132	Ethics and Professionalism in Health

Kinesiology II ..... 2

Hydrotherapy II ..... 1

Student Clinic I ..... 1 

Anatomy/Physiology/Pathology.....5 Business Practices for the Massage Therapist ..... 5

## 116 credits are required for the AAS.

## CERTIFICATE

## **First Quarter**

		Total	4
MASS	110	Introduction to Massage Therapy	6
HED	108	Human Anatomy	5
BUS	102	Math Skills for Business	3

## **Second Quarter**

CMST&	210	Interpersonal Communication
HED	125	Medical Terminology 5
ISFTY	111	Industrial First Aid 2
MASS	120	Massage Technique I 4
MASS	122	Body Mechanics I1
MASS	124	Kinesiology I 2
MASS	126	Hydrotherapy I1
SURG	105	Blood-borne Pathogens and HIV/AIDS1
		Total

## **Third Quarter**

ENGL&	101	English Composition I	5
HED	109	Human Physiology and Disease	5
HED	132	Ethics and Professionalism in Health.	2
MASS	130	Massage Technique II.	3
MASS	132	Body Mechanics II	1
MASS	134	Kinesiology II	2
MASS	136	Hydrotherapy II	1
MASS	138	Student Clinic I	1
		Total	0

## **Fourth Ouarter**

		Total
MASS	148	Student Clinic II 2
MASS	146	Seminar
MASS	144	Business Practices for the Massage Therapist 5
MASS	142	Anatomy/Physiology/Pathology5
MASS	140	Massage Technique III

## 71 credits are required for the Certificate.

<sup>1</sup> All electives must be numbered 100 or above.

PROGRAM OUTLINES

PROGRAM OUTLINES

## **MATHEMATICS PRE-MAJOR**

## AA-DTA: SCC, SFCC

Mathematics is a science basic to all other sciences and is an integral part of our everyday existence. Students pursuing a career in mathematics have many opportunities for interesting jobs depending on their abilities and interests.

Check with transfer institution for specific computer language course requirement. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

## 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## MECHANICAL ENGINEERING **TECHNOLOGY**

## AAS: SCC

for mechanical drafting and design using both CAD drafting and Solid Modeling techniques. The course of study prepares students to work in engineering teams for large and small manufacturing firms, consultant

product to be developed from initial concept to final production. Students not only learn to draft using CAD and Solid Modeling techniques, but also get "hands-on" practical experience in Rapid Prototyping, live design projects, and by learning fabrication processes used in industry. Coursework includes design and assembly techniques as well as shop practice techniques and shop safety. The course of study includes such basic disciplines of engineering technology as math, physics, statics, and materials science.

## AAS

## **First Ouarter**

APLED APLED CAD CAD	112 121 105 114	Applied Mathematics15Applied Written Communication24Basic Blueprint Reading.3Engineering Graphics 124
MET	101	Introduction to Engineering 2
		Total
Second	Qua	rter
APLED	123	Leadership Skills for Business and Industry <sup>2</sup>
CAD	124	Engineering Graphics 2 5
CAD	129	Computer Aided Drafting 5
MET	123	Applied Technical Mathematics <sup>3</sup> 5
		Total
Third Q	uarte	er
CAD	131	Dimensioning and Tolerancing
CAD	132	Engineering Graphics 35
CAD	135	Schematics
MET	127	Manufacturing Processes
MET	133	Introductory Applied Physics <sup>4</sup> 3
		Total
Fourth	Quar	ter
CAD	241	CAD Solid Modeling 5
CAD	248	Mechanical CAD Applications
MET	242	Mechanical Design Fundamentals
MET	245	Applied Physics <sup>5</sup>
MET	247	Shop Practices
		Total 21

## **Fifth Quarter**

APLED	125	Employment Preparation <sup>2</sup>
CAD	252	Advanced CAD
FLPT	136	Applied Hydraulics/Pneumatics
MET	255	Technical Applications I <sup>4</sup>
		Approved Statics Elective <sup>6</sup>
		Total
Sixth Q	uarte	er
CAD	261	Project Design

		Total
ИЕТ	264	Technical Applications II <sup>4</sup> 4
MET	250	Strength of Materials/Materials Science <sup>7</sup> 5
ELMT	112	Electrical Theory
.AD	201	1 10 Jeet Design

## 112-113 credits are required for the AAS.

## **APPROVED STATICS ELECTIVE**

CET	136	Statics	6
MET	254	Statics	5

- <sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean. This course may be substituted with MET 115 if approved by the division dean.
- <sup>2</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.
- This course may be substituted with MATH 100 if offered with permission of the division dean.
- <sup>4</sup> This course may be substituted with MET 266 and 267 or MET 288.
- <sup>5</sup> MET 245 may be substituted with PHYS 100.
- <sup>6</sup> MET 254 may be substituted with CET 136.
- <sup>7</sup> MET 250 may be substituted with CET 253.

## MEDICAL ASSISTANT

## AAS, Certificate: SCC

The Medical Assistant is an Allied Health professional who assists physicians and other health care providers in their offices or other medical settings. In accordance with respective state laws, they perform a broad range of administrative and clinical duties. In the Medical Assistant program at Spokane Community College, students learn about the administrative duties of scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills and medical transcription, handling telephone calls, writing correspondence, serving as a liaison between the physician and other individuals, and managing practice finances. The clinical phase of the program is taught through intense training and hands-on application. Students learn to perform clinical duties, including asepsis and infection control, taking patient histories and vital signs, first aid and CPR, preparing patients for procedures, assisting the physician with examinations and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician. The Spokane Community College Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Curriculum review Board of the American Association of Medical Assistants Endowment (AAMAE). Commission on Accreditation of Allied Health Education Programs 1361 Park Street, Clearwater, Florida 33756, 1(727)210-2350

Admission Requirements:

- Computer Skills
- CIS 110 or equivalent
- Appropriate scores in one of the following: ASSET or COMPASS

A 2.0 grade or better is needed in all required classes before proceeding to the next quarter and before a certificate is awarded. The student may complete requirements in Medical Assistant and receive a certificate or complete the professional requirements plus liberal arts requirements and receive an associate in applied science degree. The student may enroll in liberal arts either preceding or following the professional curriculum.

## AAS

## **First Quarter** ENGL& 101 English Composition I......5

The Mechanical Engineering Technology program prepares students engineering firms, testing and research companies.

Students learn the design and manufacturing processes required for a

HED	108	Human Anatomy 5
MA	101	Administrative Medical Assistant I 5
MA	102	Clinical Medical Assistant I 3
		Total
Second	Qua	rter
HED	125	Medical Terminology
MA	111	Administrative Medical Assistant II
MA	112	Clinical Medical Assistant II
PHARM	115	Mathematics for Pharmacy Technicians5
		Total
Third O	uarte	۵۴ ۱
HED	100	Human Physiology and Disease
MA	109	Medical Assistant Coding and Reimbursement 3-5
MA	120	Clinical Modical Assistant III
MΔ	122	Ambulatory Care Setting Pharmacology 5
IVIA	120	
To south a	<b>0</b>	10(al
Fourth	Quar	
MA	131	Practice Finances and Management
MA	132	Clinical Medical Assistant IV
MA	141	Medical Assistant Seminar
MA	142	Medical Assistant Externship
		Total
Fifth Qu	iarte	r
MMGT	101	Principles of Management <sup>1</sup> 5
PSYC&	100	General Psychology <sup>1</sup> 5
SOC&	101	Intro to Sociology <sup>2</sup>
		Total
Sixth Q	uarte	r
BUS	280	Human Relations in Business <sup>1</sup>
CMST	227	Intercultural Communication <sup>1</sup>
ENGL&	102	Composition II <sup>1</sup>
		Total
Seventh	n Oua	nter
ACCT&	201	Prin of Accounting <sup>1</sup>
ACCT& CMST&	201 210	Prin of Accounting I <sup>1</sup>
ACCT& CMST& PSYC	201 210 210	Prin of Accounting I <sup>1</sup>
ACCT& CMST& PSYC	201 210 210	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5
ACCT& CMST& PSYC	201 210 210	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total       15
ACCT& CMST& PSYC 114-116	201 210 210	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total       15         its are required for the AAS.
ACCT& CMST& PSYC 114-116	201 210 210 cred	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       5         Psychology <sup>1</sup> 5         Total       15         its are required for the AAS.
ACCT& CMST& PSYC 114-116 CERTIFI	201 210 210 credi	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total       15         its are required for the AAS.
ACCT& CMST& PSYC 114-116 CERTIFI First Qu	201 210 210 credi CATE	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total       15         its are required for the AAS.
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL&	201 210 210 credi CATE	Prin of Accounting I <sup>1</sup>
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED	201 210 210 credi CATE 101 108	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total       15         its are required for the AAS.       15         r       English Composition I.       5         Human Anatomy       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA	201 210 210 credi CATE 101 108 101	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total       15         its are required for the AAS.         r       English Composition I         Human Anatomy       5         Administrative Medical Assistant I       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA	201 210 210 credi CATE 101 108 101 102	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         r         English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA	201 210 210 credi CATE 101 108 101 102	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         r       5         English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second	201 210 210 credi CATE 101 108 101 102 Qual	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         r       5         English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       18
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED	201 210 210 credi CATE 101 108 101 102 Qual 125	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         r       5         English Composition I.       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       8         Medical Terminology       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA	201 210 210 credi CATE 101 108 101 102 Qual 125 111	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         its       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       5         Medical Terminology       5         Administrative Medical Assistant II.       3
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA MA	201 210 210 credi arter 101 108 101 102 Quan 125 111 112	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         its       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       5         Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II.       5         Administrative Medical Assistant II.       5         Administrative Medical Assistant II.       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA MA PHARM	201 210 210 210 CATE arter 101 108 101 102 Quar 125 111 112 115	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         its       5         Prin of Accounting I <sup>1</sup> 5         Total.       15         its are required for the AAS.         its       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       5         Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA MA PHARM	201 210 210 210 CATE aartei 101 108 101 102 Quan 125 111 112 115	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.         r       5         English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       5         Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II.       5         Medical Terminology       5         Administrative Medical Assistant II.       3         Total.       18         Total.       18
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA MA PHARM	201 210 210 210 CATE aartei 101 108 101 102 Quaa 125 111 112 115	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       5         Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       3         Total.       18         rter       5         Medical Terminology       5         Administrative Medical Assistant II       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Total.       18
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA MA PHARM Third Q HED	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       18         Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       3         Clinical Medical Assistant II       18         rter       5         Methematics for Pharmacy Technicians       5         Total.       18         rter       18         Human Physiology and Disease       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA PHARM Third Q HED MA	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109 120	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       7         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Muman Physiology and Disease.       5         Medical Assistant Coding and Reimbursement       3
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA PHARM Third Q HED MA MA	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109 120 122	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       9         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       18         Muna Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA Second HED MA PHARM Third Q HED MA MA MA	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109 120 122 125	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       9         Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       18         Muna Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA MA	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109 120 122 125	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       10         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA PHARM	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109 120 122 125	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       14         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         Fer       18
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA PHARM	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quar</b> 125 111 112 115 <b>uarte</b> 109 120 122 125 <b>Quar</b>	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       11         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         Ter       18         Paragetica Einanees and Management       3
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA MA Fourth (MA MA	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quar</b> 125 111 112 115 <b>uarte</b> 109 120 122 125 <b>Quar</b> 131 132	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians       5         Total.       18         F       11         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         ter       7         Practice Finances and Management.       3         Clinical Medical Ascictant W       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA MA Fourth (MA MA MA	201 210 210 210 <b>CATE</b> <b>arte</b> 101 108 101 102 <b>Quar</b> 125 111 112 115 <b>uarte</b> 109 120 122 125 <b>Quar</b> 131 132	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       1         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         ter       1         Practice Finances and Management.       3         Clinical Medical Assistant IV.       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA MA MA MA MA MA	201 210 210 210 <b>credi</b> <b>carte</b> 101 108 101 102 <b>Quar</b> 125 111 112 115 <b>uarte</b> 109 120 122 125 <b>Quar</b> 131 132 141	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       5         Clinical Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians       5         Total.       18         F       11         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         ter       9         Practice Finances and Management.       3         Clinical Medical Assistant IV.       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA MA MA MA MA MA	201 210 210 210 <b>credi</b> <b>carte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>uarte</b> 109 120 122 125 <b>Quar</b> 131 132 141 142	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II       3         Clinical Medical Assistant II       5         Mathematics for Pharmacy Technicians       5         Total.       18         F       Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3       3         Clinical Medical Assistant III.       5       5         Medical Assistant Coding and Reimbursement       3       5         Total.       18       5         Total.       18       5         Medical Assistant Coding and Reimbursement       3       5         Total.       18       5       5
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA Third Q HED MA MA MA MA Sourth (MA MA MA	201 210 210 210 <b>credi</b> <b>CATE</b> <b>iarte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>Quan</b> 120 122 125 <b>Quar</b> 131 132 141 142	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         F       English Composition I.       5         Human Anatomy       5         Administrative Medical Assistant I.       3         Total.       18         rter       Medical Terminology       5         Administrative Medical Assistant II       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians       5         Total.       18         Pr       11         Human Physiology and Disease       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         ter       1         Practice Finances and Management.       3         Clinical Medical Assistant IV.       5         Medical Assistant Seminar       1         <
ACCT& CMST& PSYC 114-116 CERTIFI First Qu ENGL& HED MA MA PHARM Third Q HED MA MA Fourth Q MA MA MA MA MA MA	201 210 210 210 <b>credi</b> <b>CATE</b> <b>iarte</b> 101 108 101 102 <b>Quan</b> 125 111 112 115 <b>Quan</b> 120 122 125 122 125 <b>Quan</b> 131 132 141 142 142 145	Prin of Accounting I <sup>1</sup> 5         Interpersonal Communication <sup>1</sup> 5         Conception through Adolescent Developmental       Psychology <sup>1</sup> Psychology <sup>1</sup> 5         Total.       15         its are required for the AAS.       15         its are required for the AAS.       5         Human Anatomy       5         Administrative Medical Assistant I.       3         Total.       18         rter       18         Medical Terminology       5         Administrative Medical Assistant II.       3         Clinical Medical Assistant II       3         Clinical Medical Assistant II.       5         Mathematics for Pharmacy Technicians.       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Medical Assistant Coding and Reimbursement       3         Clinical Medical Assistant III.       5         Ambulatory Care Setting Pharmacology       5         Total.       18         ter       18         Practice Finances and Management.       3         Clinical Medical Assistant IV.       5         Medical Assistant Seminar       1

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for courses required for the AAS degree.

## **MEDICAL LABORATORY TECHNICIAN** IN COLLABORATION WITH WENATCHEE **VALLEY COLLEGE**

## **Articulation: SCC**

Courses for this program are offered by SCC in collaboration with Wenatchee Valley College. On completion of the program, students will earn an Associate of Technical Science (ATS) degree from Wenatchee Valley College.

Admission Requirements:

- High school graduation or equivalent (GED)
- GPA (most recently earned): High school GPA of 2.5 or a cumulative college GPA of 2.5 with at least 15 quarter credits
- Completion of BIOL 160 with a grade of C or better (as a prerequisite to the first quarter in Anatomy and Physiology (BIOL & 241), and Microbiology (BIOL & 260)
- The first three quarters of the program are all prerequisites for possible admission to the remaining five quarters of the program. All applicants must either 1) have completed all of the courses listed in the first three quarters of the first year, or 2) be enrolled in the last few courses during the Spring Quarter in which an interview is desired.
- Submit two forms: 1) general WVC admission form (available online at WVC Home Page), and 2) Supplemental Application to the MLT program (print out from "MLT Admissions: link on the MLT web page, fill in & send via US Mail to WVC, available at www.wvc.edu/ go/mlt - see Note below)
- Community Colleges of Spokane are NOT involved in the admission process for the MLT program - only WVC, MLT and SHMC Laboratory Officials are involved in these decisions.
- An interview in Spring Quarter of the first year will be required of all applicants who have met all prerequisite requirements.
- Applicants accepted into the clinical portion of the program must satisfactorily complete an up-to-date immunization (including the HBV 3-shot series), and tuberculosis test form. Students should also have a test for color blindness.

Note: Applications and information about the MLT Program are available only at the WVC Web site www.wvc.edu) go to Programs, then to Professional Technical Programs [Workforce Education], then to Medical Laboratory Technology), or go to the MLT pages directly with www.wvc. edu/go/mlt. The courses in the first year (non-MLT prefixes) taken in Spokane are available on a 'space available' basis, not being specifically reserved for MLT students.

A 2.0 must be maintained quarterly in every subject before proceeding to the next quarter.

## ARTICULATION

## Prerequisites

BIOL& 160 General Biology w/Lab

riisi yi	Jarte	I	
BIOL&	241	Human A & P 1	5
CHEM&	: 121	Intro to Chemistry: w/Lab	5
HED	125	Medical Terminology	5
SURG	105	Blood-borne Pathogens and HIV/AIDS	1
		MLT 100 Introduction to Medical Lab Technology <sup>1</sup>	1
		Total	. 17
Second	Qua	rter	
BIOL&	242	Human A & P 2	5
CHEM&	: 122	Intro to Organic Chem: w/Lab	5
ENGL&	101	English Composition I	5
		MLT 101 Introductory Seminar <sup>1</sup>	1
		Total	16
Third Q	uarte	er	
BIOL&	260	Microbiology	5
CMST&	101	Introduction to Communication	5
PSYC&	100	General Psychology	5
		MLT 102 Intermediate Seminar <sup>1</sup>	1

arter	
MLT 150 Basic Laboratory Theory <sup>1</sup>	4
MLT 151 Basic Laboratory Practice <sup>1</sup>	3
SCC Computer Elective (optional)0-	3
Total	D
ter	
MLT 210 Clinical Experience I <sup>1</sup> 1	2
MLT 213 Hematology <sup>1</sup>	7
MLT 214 Hematology Lab <sup>1</sup>	3
Total	2
ter	
MLT 220 Clinical Experience II <sup>1</sup>	2
MLT 223 Clinical Microbiology <sup>1</sup>	7
MLT 224 Clinical Microbiology Lab <sup>1</sup>	3
Total	2
uarter	
MLT 230 Clinical Experience III <sup>1</sup>	2
MLT 233 Clinical Chemistry and Urinalysis <sup>1</sup>	7
MLT 234 Clinical Chemistry and Urinalysis Lab <sup>1</sup>	3
Total	2
arter	
MLT 240 Clinical Experience IV <sup>1</sup>	2
Total	2
	MLT 150 Basic Laboratory Theory <sup>1</sup> MLT 151 Basic Laboratory Practice <sup>1</sup> MLT 151 Basic Laboratory Practice <sup>1</sup> 0-         SCC Computer Elective (optional)       0-         Total.       7-10         ter       MLT 210 Clinical Experience I <sup>1</sup> 1         MLT 213 Hematology <sup>1</sup> 1         MLT 214 Hematology Lab <sup>1</sup> 22         ter       MLT 220 Clinical Experience II <sup>1</sup> 1         MLT 223 Clinical Microbiology <sup>1</sup> 1         MLT 224 Clinical Microbiology Lab <sup>1</sup> 22         uarter       MLT 230 Clinical Experience III <sup>1</sup> 1         MLT 233 Clinical Chemistry and Urinalysis <sup>1</sup> 1         MLT 234 Clinical Chemistry and Urinalysis Lab <sup>1</sup> 23         muth 234 Clinical Chemistry and Urinalysis Lab <sup>1</sup> 24         muth 240 Clinical Experience IV <sup>1</sup> 1         muth 240 Clinical Experience IV <sup>1</sup> 1         muth 240 Clinical Experience IV <sup>1</sup> 1

## 134-137 credits are required for the Articulation.

## SCC COMPUTER ELECTIVE (OPTIONAL)

IS 

<sup>1</sup> All classes prefixed MLT are taken by registering each quarter with Wenatchee Valley College. MLT classes 100, 101, 102, 214, 224 and 234 are Directed Study courses. MLT 213, 223 and 233 classes are taught via a real time, LRC SCC ITV link.

## MEDICAL OFFICE BILLING AND CODING SPECIALIST

## **Certificate: SCC**

This program prepares individuals for employment in medical offices as medical office receptionists, coders and insurance billers. Spokane is a major regional center for medical care offering maximum opportunities for employment. Positions are plentiful in medical clinics, medical insurance companies and private physicians' offices.

Admission Requirements:

Keyboarding Skills: 30 wpm with six or fewer errors completed at the SCC testing center or enrollment in BT 101 or 102, current first aid/ CPR card or successful completion of ISFTY 111 or equivalent. Students with ASSET scores below 30 or COMPASS test scores below 43 must successfully complete BT 151 during the first quarter.

## CERTIFICATE First Quarter

FIIST Q	uaite	
BT	105	Basic Grammar for Business II 5
MSEC	101	Medical Terminology and Anatomy 5
MSEC	108	Medical Office Computing 5
		Total
Second	l Qua	rter
ACCT	151	College Accounting I
BT	231	Office Procedures <sup>1</sup>
MSEC	102	Medical Terminology and Anatomy <sup>2</sup>
		Total
Third Q	)uart	er
BUS	103	Basic Business Math and Electronic Calculators <sup>3</sup> 5
MSEC	121	Medical Office Reception <sup>4</sup>
MSEC	123	Medical Office Coding <sup>5</sup>
		Total
Fourth	Quar	ter
MSEC	124	Medical Office Insurance Billing <sup>6</sup>
MSEC	125	Medical Office Bookkeeping <sup>7</sup>
MSEC	223	Medical Office Coding I <sup>18</sup>
		Total

## **Fifth Quarter**

BT	160	Job Preparation Techniques
MSEC	120	Human Relations/Communications for Medical Office
		Personnel 5
MSEC	284	Medical Internship Seminar 1
MSEC	285	Medical Office Reception Internship <sup>9</sup> 2
MSEC	286	Medical Insurance Billing Internship <sup>9</sup> 2
		Total
73 credits are required for the Certificate.		

<sup>1</sup> BT 105, keyboarding proficiency.

- <sup>2</sup> MSEC 101.
- <sup>3</sup> BUS 103 may be substituted with BT 128.
- <sup>4</sup> BT 231 or concurrent enrollment with BT 231.
- <sup>5</sup> MSEC 101,102, or concurrent enrollment with 102.
- <sup>6</sup> Concurrent enrollment with MSEC 125.
- <sup>7</sup> ACCT 151, BUS 103, and concurrent enrollment with MSEC 124.
- 8 MSEC 123.
- <sup>9</sup> All of the courses listed above must be completed before enrolling in an internship. Cooperative education courses may be substituted.

## MEDICAL OFFICE RECEPTIONIST

## **Certificate: SCC**

This program prepares individuals for employment in medical offices as medical office receptionists. Spokane is a major regional center for medical care offering maximum opportunities for employment. Positions are plentiful in medical clinics, medical insurance companies and private physicians' offices.

Admission Requirements:

Keyboarding Skills: 30 wpm with six or fewer errors completed at the SCC testing center or enrollment in BT 101 or 102, current first aid/ CPR card or successful completion of ISFTY 111 or equivalent. Students with ASSET scores below 30 or COMPASS test scores below 43 must successfully complete BT 151 during the first quarter.

## CERTIFICATE

## **First Quarter**

BT	105	Basic Grammar for Business II 5
MSEC	101	Medical Terminology and Anatomy 5
MSEC	108	Medical Office Computing 5
		Total
Second	l Qua	rter
BT	231	Office Procedures <sup>1</sup>
MSEC	102	Medical Terminology and Anatomy <sup>2</sup> 5
MSEC	121	Medical Office Reception <sup>3</sup> 5
		Total
Third Q	Quart	er
BT	160	Job Preparation Techniques
MSEC	120	Human Relations/Communications for Medical Office
		Personnel
MSEC	284	Medical Internship Seminar
MSEC	285	Medical Office Reception Internship <sup>4</sup> 3
		Total
	Pa	and the lateral second the second

## 42 credits are required for the Certificate.

<sup>1</sup> BT 105, keyboarding proficiency

<sup>2</sup> MSEC 101

- <sup>3</sup> BT 231 or concurrent with BT 231
- <sup>4</sup> All of the courses listed above must be completed before enrolling in an internship. Cooperative education may be substituted.

## MEDICAL OFFICE SPECIALIST

## AAS: SCC

This program prepares individuals for employment in medical offices. Spokane is a major regional center for medical care offering maximum opportunities for employment. Positions are plentiful in medical clinics, medical insurance companies and private physicians' offices.

Admission Requirements:

Keyboarding Skills: 30 wpm with six or fewer errors completed at the

SCC testing center or enrollment in BT 101 or 102, current first aid/ CPR card or successful completion of ISFTY 111 or equivalent. Students with ASSET scores below 30 or COMPASS test scores below 43 must successfully complete BT 151 during the first quarter.

Students must complete all classes with a 2.0 grade or higher.

## AAS

## 

FIRST Q	uarte	ir da se
BT	105	Basic Grammar for Business II 5
MSEC	101	Medical Terminology and Anatomy
MSEC	108	Medical Office Computing 5
11020	100	Total
Second	l Qua	rter
ACCT	151	College Accounting I
BT	102	Document Processing 5
MSEC	102	Medical Terminology and Anatomy <sup>1</sup> 5
MOLC	102	Total 15
Third O	luart	۵۴
BT	221	Office Procedures <sup>2</sup> 5
DI	102	Regia Rusinges Math and Electronic Calculators3
DUS	103	
MSEC	120	Human Kelations/Communications for Medical Office
NOT O	100	Personnel
MSEC	123	Medical Office Coding <sup>4</sup>
		Total
Fourth	Quar	rter
MSEC	121	Medical Office Reception <sup>5</sup> 5
MSEC	223	Medical Office Coding II <sup>6</sup> 5
MSEC	240	Medical Office Transcription <sup>7</sup> 5
		Total
Fifth O	uarte	r
BT	160	Job Preparation Techniques 3
MSEC	124	Medical Office Insurance Billing <sup>8</sup> 5
MSEC	125	Medical Office Bookkeeping <sup>9</sup> 5
MSEC	241	Medical Office Transcription <sup>10</sup> 5
NIOLC	211	Total
Sixth O		
DI	260	Administrative Office Management
MSEC	180	Basic Medical Assisting
MSEC	284	Medical Internship Seminar 1
MSEC	285	Medical Office Reception Internship <sup>11</sup> 2
MSEC	287	Medical Specialist Internship <sup>11</sup> 2
		Total
98 cred	lits a	re required for the AAS.
<sup>1</sup> MSEC	2 101	
<sup>2</sup> BT 105, keyboarding proficiency		
<sup>3</sup> BUS 1	03 ma	y be substituted with BT 128.
<sup>4</sup> MSEC 101,102 or concurrent enrollment with 102.		
<sup>5</sup> BT 231 or concurrent with BT 231.		
6 MSEC	2 1 2 3	

7 Typing test 40 wpm

- 8 Concurrent enrollment with MSEC 125
- 9 ACCT 151, BUS 103 and concurrent enrollment with MSEC 124

10 MSEC 240

<sup>11</sup> All of the courses listed above must be completed before enrolling in an internship. cooperative education may be substituted.

## MEDICAL TRANSCRIPTION

## **Certificate: SCC**

This educational program in medical transcription prepares the student for entry-level employment as a medical transcriptionist. This program provides the basic knowledge, understanding and skills required to transcribe medical dictation with accuracy, clarity and timeliness, applying the principles of professional and ethical conduct. The final quarter offers practical application of medical transcription in a hospital, clinic or medical transcription service environment.

Students must achieve at least a 2.0 grade point in all courses.

## CERTIFICATE

## **First Quarter**

BT	105	Basic Grammar for Business II <sup>1</sup>
ENGL	153	Vocabulary Development
MSEC	101	Medical Terminology and Anatomy
MSEC	131	Fundamentals of Medical Word Processing5
		Total
Second	Qua	rter
MSEC	102	Medical Terminology and Anatomy
MSEC	132	Medical Transcription I 10
		Speech Elective
		Total
Third Q	uarte	er
BUS	103	Basic Business Math and Electronic Calculators <sup>2</sup> 5
MSEC	103	Disease Processes
MSEC	133	Medical Transcription II 10
		Total
Fourth	Quar	ter
BT	160	Job Preparation Techniques
MSEC	150	Medical Transcription Practicum
MSEC	284	Medical Internship Seminar 1
		Total
70-72 c	redite	are required for the Certificate.
SPEECH	ELEC	TIVE
CMST&	210	Interpersonal Communication
CMST	287	Business and Professional Communication

<sup>1</sup> BT 105 may be substituted with BT 109.

<sup>2</sup> BUS 103 may be substituted with BT 128.

## MEDICINE PRE-MAJOR

## AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

Usually a bachelor's degree is required for admission to medical schoolhowever, some schools now consider students after completion of their junior year. Competition for admission is intense; a high overall college grade point average must be maintained.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total9	)0

90 credits are required for the AA-DTA.

## ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

	Total	'n
cradita	are required for the Acceptate in Pielegy DTA /MPD	

90 credits are required for the Associate in Biology DTA/MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **MULTI-OCCUPATIONAL TRADES**

## AAS: SCC

The primary function of the Multi-Occupational Trades apprenticeship program is to train and produce journey-level workers who meet the stringent requirements of each individual trade. This is accomplished through a combination of technical skills obtained in an approved apprenticeship program (a minimum of 6,000 clock hours); the theory and practical applications learned in apprenticeship-related courses (450 clock hours); and instruction received in related education and elective courses.

This program is open only to apprentices enrolled in a local JATCapproved apprenticeship training program. Verification of completion of

an apprenticeship program by the JATC is required before submission of the petition for graduation. The combined total of 23-25 program credits, 6000 OJT hours, and 450 hours of related training will meet the 30-hour residency requirements of AAS degree candidates.

## AAS

4	450 Theory Clock Hours
(	6000 Technical Clock Hours 0
]	Elective <sup>1</sup>
]	Related Education <sup>2</sup> 13-15
•	Total

## 23-25 credits are required for the AAS.

## ELECTIVE

CIS	110	Introduction to Computer Applications
MMGT	205	Small Business Planning 5
RELATE	D EDL	JCATION
APLED	112	Applied Mathematics
APLED	121	Applied Written Communication
APLED	123	Leadership Skills for Business and Industry 3-4
APLED	125	Employment Preparation 3

<sup>1</sup> These are recommended electives. Substitutions must be approved by the JATC.

<sup>2</sup> These related education requirements may be met by any course or combination of courses approved for substitution by the instructional dean.

## **MUSIC PRE-MAJOR**

## **AA-DTA: SFCC**

The goal of the SFCC Music Department is to provide students with a strong foundation in music. The Music Pre-Major AA Degree is designed to meet the needs of transfer students and offers courses that satisfy core music requirements while fulfilling the general courses required by four-year institutions. The program is also designed for individuals who intend to complete only a two-year program and for musicians who wish to increase their performance/skill level.

The department also offers courses for those who wish to upgrade skills, increase general music knowledge for their own enjoyment and fulfill humanities requirements for general studies. Opportunities are provided for qualified students (both in and out of the program) to perform in vocal and instrumental ensembles including classical, contemporary and popular styles.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

## **First Ouarter**

MUSC&	141	Music Theory I <sup>1</sup>	5
MUSC	176	Beginner Piano Class I <sup>1</sup>	2
MUSC	180	Private Lessons.	1
		Elective <sup>2</sup>	2
		Ensemble <sup>3</sup>	0-1
		GUR - General Undergraduate Requirement <sup>2</sup>	5
		Total	15-16
Second	Qua	rter	
MUSC&	142	Music Theory II <sup>1</sup>	5
MUSC	177	Beginner Piano Class II <sup>1</sup>	2
MUSC	180	Private Lessons.	1
		Ensemble <sup>3</sup>	0-1
		GUR - General Undergraduate Requirement <sup>2</sup>	10
		Total	18-19
Third Q	uarte	21	
MUSC&	143	Music Theory III <sup>1</sup>	5
MUSC	178	Beginner Piano Class III <sup>1</sup>	2
MUSC	180	Private Lessons.	1
		Ensemble <sup>3</sup>	0-1
		GUR - General Undergraduate Requirement <sup>2</sup>	10
		Total	18-19

## **Fourth Quarter**

MUSC&	241	Music Theory IV <sup>1</sup>
MUSC	276	Advanced Piano Class I <sup>1</sup> 2
MUSC	280	Private Lessons
		Ensemble <sup>3</sup> 0-1
		GUR - General Undergraduate Requirement <sup>2</sup> 10
		Total
Fifth Qu	ıarte	r
MUSC&	242	Music Theory $V^1$
MUSC	277	Advanced Piano Class II <sup>1</sup>
MUSC	280	Private Lessons
		Ensemble <sup>3</sup> 0-1
		GUR - General Undergraduate Requirement <sup>2</sup> 10
		Total 18-19
Sixth Q	uarte	er
MUSC&	243	Music Theory VI <sup>1</sup>
MUSC	278	Advanced Piano Class III <sup>1</sup>
MUSC	280	Private Lessons
		Ensemble <sup>3</sup> 0-1
		GUR - General Undergraduate Requirement <sup>2</sup> 10
		Total
10E 111	and	its are required for the AA DTA

-III credits are reduired for the AA-DIA.

## **ENSEMBLE**

MUSC	115	Symphony Orchestra 1-3
MUSC	127	Chamber Singers 1-3
MUSC	134	Jazz Combo
MUSC	139	All College Chorus
MUSC	144	Commercial Music Groups 1
MUSC	145	Concert Band 1-3
MUSC	148	Stage Band 1-3
MUSC	151	String Ensemble
MUSC	215	Symphony Orchestra
MUSC	227	Chamber Singers 1-3
MUSC	234	Jazz Combo 1
MUSC	239	All College Chorus 1-2
MUSC	244	Commercial Music Groups
MUSC	245	Concert Band 1-3
MUSC	248	Stage Band 1-3
MUSC	251	String Ensemble
1 Course	e are e	ffered sequentially. Students should start the program of study

Courses are offered sequentially. Students should start the program of study sequence fall quarter.

<sup>2</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

<sup>3</sup> Minimum one course per quarter for all majors except piano. Ensemble not required for piano majors.

## NATURAL RESOURCE MANAGEMENT

## AAS: SCC

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is recognized by the Society of American Foresters. Three additional options are available: Parks and Recreation, Soils, or Wildlife Fisheries.

Students must obtain a minimum ASSET score of 111 with a minimum score of at least 37 on all three tests to enter the program.

Second year: Student may remain in the main program which is forestry based, or they may select one of the three options for an AAS degree which requires a total of 105 credits.

## AAS

## NATURAL RESOURCE MANAGEMENT

## **First Quarter**

ENVS	110	Plant Biology	5
NATRS	112	Natural Resources Mathematical Applications <sup>1</sup>	5
NATRS	120	Basic Computer Applications in Natural Resources <sup>2</sup>	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience	1
		Total	8

Second	Oua	rter
ENVS	207	Wildlife Biology
NATRS	122	Natural Resources Trigonometric Applications 5
NATRS	215	Forest Measurements
NATRS	225	Natural Resources Occupational Experience1
WATER	120	Hydrologic Technical and Field Reports <sup>3</sup>
		Total
Third Q	uart	er
NATRS	130	Chainsaw Operation, Maintenance and Safety3
NATRS	201	Forest Protection
NATRS	204	Maps and Aerial Photo Interpretation 5
NATRS	205	Surveying 5
NATRS	225	Natural Resources Occupational Experience1
		Total
Fourth	Quar	ter
NATRS	203	Forest Harvesting and Products
NATRS	209	Silviculture
NATRS	216	Forest Inventory
NATRS	225	Natural Resources Occupational Experience1
NATRS	230	Global Positioning Systems
		Total
Fifth Q	uarte	r
ENVS	104	Environmental Conservation
ENVS	210	Environmental Soil Science
NATRS	220	Introduction to Geographic Information Systems for
NUTTO		Natural Resources
NATRS	225	Natural Resources Occupational Experience1
		lotal
Sixth Q	uarte	
ENVS	208	Outdoor Recreation and Interpretation
NATRS	221	Applications in Geographic Information Systems    5      Elective <sup>4</sup> 5
		Total

## 105 credits are required for the AAS.

## PARKS AND RECREATION OPTION

## First Quarter

110	Plant Biology	5
112	Natural Resources Mathematical Applications <sup>1</sup>	5
120	Basic Computer Applications in Natural Resources <sup>2</sup> .	2
202	Dendrology	5
225	Natural Resources Occupational Experience	1
	Total	18
Qua	rter	
207	Wildlife Biology	5
122	Natural Resources Trigonometric Applications	5
215	Forest Measurements	5
225	Natural Resources Occupational Experience	1
120	Hydrologic Technical and Field Reports <sup>3</sup>	5
	Total	21
uarte	er	
130	Chainsaw Operation, Maintenance and Safety	3
201	Forest Protection	5
204	Maps and Aerial Photo Interpretation	5
205	Surveying	5
225	Natural Resources Occupational Experience	1
	Total	19
Quar	ter	
156	Equipment Operation and Maintenance	5
104	Environmental Conservation	5
209	Silviculture	5
225	Natural Resources Occupational Experience	1
	Total	16
	110 112 120 202 225 <b>Qua</b> 207 122 215 225 120 <b>uarto</b> 201 204 205 225 <b>Quar</b> 156 104 209 225	<ul> <li>Plant Biology</li> <li>Natural Resources Mathematical Applications<sup>1</sup></li> <li>Basic Computer Applications in Natural Resources<sup>2</sup></li> <li>Dendrology</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Quarter</li> <li>Natural Resources Trigonometric Applications</li> <li>Forest Measurements</li> <li>Natural Resources Occupational Experience.</li> <li>Hydrologic Technical and Field Reports<sup>3</sup></li> <li>Total.</li> <li>Uarter</li> <li>Chainsaw Operation, Maintenance and Safety.</li> <li>Forest Protection</li> <li>Forest Protection</li> <li>Surveying</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Basic Computer Application and Maintenance</li> <li>Total.</li> <li>Surveying</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Surveying</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Maps and Aerial Photo Interpretation</li> <li>Surveying</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Maps and Aerial Photo Interpretation</li> <li>Surveying</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Total.</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> <li>Total.</li> <li>Natural Resources Occupational Experience.</li> <li>Total.</li> </ul>

## **Fifth Quarter**

ENVS	210	Environmental Soil Science	5
NATRS	220	Introduction to Geographic Information Systems for	
		Natural Resources	4

NATRS	225	Natural Resources Occupational Experience1
NATRS	230	Global Positioning Systems
		Elective <sup>4</sup>
		Total
Sixth Q	uarte	er
AGGEN	151	Shop Skills 4
ENVS	208	Outdoor Recreation and Interpretation
NATRS	221	Applications in Geographic Information Systems 5
		Total
105 cre	dits a	are required for the AAS.
sou s c	DTIC	NN .
SUILS C		
		Diana Diala and
EINVS	110	Plant Biology
NAIKO	112	Racia Computer Applications in Natural Recourses <sup>2</sup>
MATRS	$\frac{120}{202}$	Dendrology 5
NATRS	202	Natural Resources Occupational Experience
11/11/0	220	Total
Second	Оца	rtor
ENIVS	<b>Qua</b>	Wildlife Biology 5
NATES	107	Natural Resources Trigonometric Applications 5
MATRS	215	Forest Measurements
NATRS	215	Natural Resources Occupational Experience
WATER	120	Hydrologic Technical and Field Reports <sup>3</sup> 5
, , , , , , , , , , , , , , , , , , ,	120	Total
Third O	uart	۵۳
NATRS	130	Chainsaw Operation Maintenance and Safety 3
NATRS	201	Forest Protection 5
NATRS	201	Maps and Aerial Photo Interpretation 5
NATRS	205	Surveying
NATRS	225	Natural Resources Occupational Experience 1
		Total
Fourth	Ouar	ter
NATRS	209	Silviculture 5
NATRS	225	Natural Resources Occupational Experience
WATER	109	Introduction to Water Resources
		Elective <sup>4</sup>
		Total
Fifth Qu	ıarte	r
ENVS	104	Environmental Conservation5
ENVS	210	Environmental Soil Science 5
NATRS	220	Introduction to Geographic Information Systems for
		Natural Resources 4
NATRS	225	Natural Resources Occupational Experience1
NATRS	230	Global Positioning Systems
		Total
Sixth Q	uarte	er
ENVS	208	Outdoor Recreation and Interpretation
NATRS	221	Applications in Geographic Information Systems 5
		Elective <sup>4</sup>
		Total
105 cre	dits a	are required for the AAS.
WILDLI	FE/F	ISHERIES OPTION
First Or	iarto	
FNT/C	110	Plant Biology 5
νάτρς	110 117	Natural Resources Mathematical Applications 5
NATRS	120	Basic Computer Applications in Natural Resources <sup>2</sup> 2
NATRS	202	Dendrology
NATRS	225	Natural Resources Occupational Experience
		Total

## Second Quarter

ENVS	207	Wildlife Biology
NATRS	122	Natural Resources Trigonometric Applications 5
NATRS	215	Forest Measurements 5
NATRS	225	Natural Resources Occupational Experience1
WATER	120	Hydrologic Technical and Field Reports <sup>3</sup> 5
		Total

## Third Quarter

THE A		
NATRS	201	Forest Protection
NATRS	204	Maps and Aerial Photo Interpretation 5
NATRS	205	Surveying 5
NATRS	225	Natural Resources Occupational Experience1
		Total
Fourth	Quar	ter
ENVS	217	Field Sampling Techniques 4
NATRS	209	Silviculture
NATRS	217	Freshwater Fisheries Biology
NATRS	225	Natural Resources Occupational Experience1
		Total
Fifth Qu	uarte	r
ENVS	210	Environmental Soil Science
NATRS	220	Introduction to Geographic Information Systems for
		Natural Resources 4
NATRS	225	Natural Resources Occupational Experience1
NATRS	230	Global Positioning Systems
WATER	209	Water Quality
		Total
Sixth Q	uarte	er
ENVS	208	Outdoor Recreation and Interpretation
ENVS	227	Advanced Wildlife Biology
NATRS	221	Applications in Geographic Information Systems 5
		Elective <sup>4</sup>

## 105 credits are required for the AAS.

<sup>1</sup> Must pass with a 1.7 or higher grade before advancing into NATRS 122.

<sup>2</sup> NATRS 120 may be substituted with CIS 105.

<sup>3</sup> Approved written communication course at the level of 100 or higher.

<sup>4</sup> Electives must be approved by the Natural Resources department.

## **NETWORK DESIGN AND** ADMINISTRATION

## AAS, Certificate: SCC

The Network Design and Administration program prepares students as local- and wide-area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

Prior completion of BT 100 and CIS 110 or permission of the program lead. All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

## AAS

## **First Quarter**

CIS	205	Advanced Operating Systems5
CIS	240	Introduction to Networks 5
ENGL&	101	English Composition I
		Total
Second	Qua	rter
CIS	244	Windows 2003 Server
CIS	250	Cisco Networking
CIS	271	Server and Introduction to Wireless Technologies 5
		Math Elective <sup>1</sup> 5
		Total
Third Q	uarte	er
CIS	206	Introduction to UNIX
CIS	236	Windows 2003 Network Infrastructure
CIS	251	Cisco Network Routing 5
		Communication Elective <sup>2</sup> 5
		Total

## Fourth Quarter

	-	
CIS	213	Advanced UNIX
CIS	234	Network Scripting
CIS	252	Cisco LAN Design
MMGT	242	Project Management
		Total
Fifth O	uarte	r
BT	160	Iob Preparation Techniques 3
CIS	247	Systems Management
CIS	253	Cisco WAN Design
CIS	263	Exchange Server Administration
		Total
Sixth Q	uarte	2 <b>r</b>
CIS	270	Principles of Network Security
CIS	275	Networking Capstone
CIS	286	Voice Over IP
		Total
103.5 c	redits	are required for the AAS.
CEDTIC	САТ	
CERIIF		-
First Q	uarte	r
CIS	205	Advanced Operating Systems 5

## CIS 240 Introduction to Networks ...... 5 ENGL& 101 English Composition I..... 5 **Second Quarter** CIS 244 Windows 2003 Server ..... 5 CIS 250CIS 271 Server and Introduction to Wireless Technologies .... 5 Math Elective<sup>1</sup> ..... 5 Third Quarter

	-	
206	Introduction to UNIX	
236	Windows 2003 Network Infrastructure	
251	Cisco Network Routing5	
	Communication Elective <sup>2</sup> 5	
	Total	
55 credits are required for the Certificate.		
	206 236 251	

## **COMMUNICATION ELECTIVE**

BUS	280	Human Relations in Business
CMST&	210	Interpersonal Communication
CMST	227	Intercultural Communication
CMST&	230	Small Group Communication5
CMST	250	Managing Conflict Through Communication 5
ENGL	120	Applied Technical Writing for Vocations
ENGL&	235	Technical Writing
MATH E	LECTI	VE
BUS	217	Business Statistics
MATH&	: 107	Math in Society
MATH&	: 141	Precalculus I
MATH	201	Introduction to Finite Mathematics 5
PHIL&	106	Intro to Logic

<sup>1</sup> Select from the math elective group.

<sup>2</sup> Select from the communication elective group.

## NONINVASIVE CARDIOVASCULAR TECHNOLOGY/ECHOCARDIOGRAPHY

## AAS: SCC

Noninvasive Cardiovascular Technology/Echocardiography is an Allied Health profession specifically concerning the diagnosis and treatment of patients with cardiac and peripheral vascular disease. The technologist performs examinations at the request or direction of a physician. Through subjective sampling and/or recording, the technologist proceeds with the examination to create an easily definable foundation of data from which a correct anatomic and physiologic diagnosis may be established for each patient.

The primary role of the noninvasive cardiovascular technologist/echocar-

diography is to obtain recordings of ultrasound images of the heart and related structures for the physician to interpret. The various types of ultrasound equipment require a highly skilled operator to obtain the imaging information or other data required. The noninvasive cardiovascular technologist/echocardiography must obtain appropriate clinical history, cardiac-related physical findings, and pertinent laboratory data in order to adapt the imaging techniques to obtain comprehensive and diagnostic echocardiographic information. The Cardiovascular Technology Programs (Invasive and Noninvasive) are accredited by the Commission on Accreditation of Allied Health Education Programs (www. caahep.org) upon the recommendation of the Joint Review Committee for Cardiovascular Technology (www.jrccvt.org). William W. Goding, Med., RRT Executive Director, JRC-CVT 6 Pine Knoll Dr. Beverly, MA 01915-1425 (978) 456-5594 (978) 927-1214 (FAX) www.jrccvt.org

Admission Recommendations/Requirements:

- Active e-mail account recommended
- Computer skills recommended
- CHEM 120; CHEM& 121; HED 125; PHYS 100; PHYS 120 are recom-mended
- Appropriate scores in ASSET or COMPASS required
- Physical examination, immunizations, and drug screening and Washington State Patrol (WSP) background check are required after being accepted into the program.
- A 2.0 grade must be maintained quarterly in every course before proceeding to the next quarter.
- Students may repeat a noninvasive course once, but it must be repeated within two years.
- High school diploma or GED certificate required.
- Interview with cardiovascular technology instructor required Program Prerequisites:
- All math and science prerequisites must have been completed within the last five years with a grade of 2.0 or better.

## AAS

## Prerequisites

1		
BIOL&	160	General Biology w/Lab <sup>1</sup>
BIOL&	241	Human A & P 11
BIOL&	242	Human A & P $2^1$
CMST	127	Leadership Development
ENGL&	101	English Composition I
MATH	099	Intermediate Algebra <sup>1</sup>
First Qu	ıarte	r
ECHO	100	Introduction to Echo and Vascular
ECHO	112	Vascular Fundamentals 4
ECHO	125	Ultrasound Physics and Instrumentation I 5
NCT	113	Electrophysiology
NCT	116	Acute Coronary Syndrome 1
NCT	117	Cardiovascular Pharm 1 1
		Total
Second	Qua	rter
ECHO	122	Vascular Procedures I
ECHO	135	Ultrasound Physics and Instrumentation II5
NCT	123	History and Physical
NCT	125	Hemodynamics
NCT	126	Technical Skills/Reading Hemodynamics 1
		Total
Third Q	uarte	er
ECHO	131	Core Concepts in Echo Vasc
ECHO	132	Vascular Procedures II
ECHO	133	Echo Fundamentals 5
ECHO	138	Cardiovascular Physiology 4
		Total
Fourth	Quar	ter
ECHO	141	Data Collection and Presentation
ECHO	142	Echo Clinical Preparation
ECHO	143	Echo Clinical I
NCT	139	Surgical Asepsis
NCT	140	Technical Skills/Surgical Asepsis
		Total

## **Fifth Quarter**

## ECHO 251 PROGRAM OUTLINES ECHO 253 Echocardiography I ..... 7 Technical Skills Echocardiography I ..... 3 ECHO 254 **Sixth Quarter** ECHO 261 Echocardiography Clinical III ..... 6 ECHO 263 Echocardiography II.....7 ECHO 264 Cardiovascular Pharm 2 ..... 1 NCT 127

Technical Skills/Pharmacology . . . . . . . . . . . . . . . . 1

## Seventh Quarter

128

NCT

ECHO 273	3 Echocardiography Clinical IV 1	14
	Total	4

## 111 credits are required for the AAS.

<sup>1</sup> All math and science courses must have been completed within the last five years and must have been completed with a grade point of 2.0 or better.

## NURSING PRE-MAJOR

## Associate in Pre-Nursing DTA/MRP: SCC, SFCC

The Associate in Pre-Nursing DTA/MRP degree is a statewide articulated transfer degree agreement for nursing majors between the community colleges and most four-year institutions. This degree shall only be granted to students who have earned a cumulative grade point average of at least 2.0. Students will enter the four-year institution at junior standing. Admission to Washington four-year institutions' schools of nursing is not guaranteed to students holding a DTA/MRP degree. It is highly recommended that students meet with a counselor or academic adviser at Spokane Community College, Spokane Falls Community College or the Institute for Extended Learning on a regular basis to be sure that requirements specified in this degree are met. Students should also seek academic advising at the four-year institution to which they plan to transfer early in their educational planning to learn about additional requirements and procedures for admission.

Use this program outline in conjunction with the degree worksheet which shows a full course listing for each distribution area. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

NOTE: Students should always check with the receiving university for additional requirements. Most have competitive admissions and require one year of residency at their institution.

## ASSOCIATE IN PRE-NURSING DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

## **First Quarter**

CHEM& 121	Intro to Chemistry: w/Lab 5
ENGL& 101	English Composition I
HLTH 174	First Aid <sup>1</sup>
	Total
Second Qua	rter
CHEM& 122	Intro to Organic Chem: w/Lab 5
ENGL& 102	Composition II
	Health-Related/PE/Recreational/Leisure - Group B <sup>1</sup> 2
	Required Math: UW & Seattle University transfers . 0-5
	Total
Third Quarte	er
CHEM& 123	Intro to Biochemistry: w/Lab5
	Humanities Group Å, B or C <sup>2</sup> 5
	Quantitative/Symbolic Reasoning Requirement 5
	Total
Fourth Quar	ter
BIOL& 160	General Biology w/Lab 5
CMST& 101	Introduction to Communication
SOC& 101	Intro to Sociology <sup>3</sup>
	Total

Fifth Q	uarte	r
BIOL& PSYC&	241 100	Human A & P 1       5         General Psychology       5         Humanities Group A, B or C <sup>2</sup> 5         Total       15
Sixth Q	uarte	er
BIOL& BIOL& PSYC&	242 260 200	Human A & P 2       5         Microbiology.       5         Lifespan Psychology       5         Total.       15
Sevent	h Qua	arter
NUTRI	251	Nutrition       5         Humanities Group A, B or C <sup>2</sup> 5         Social Sciences - Group B Requirement <sup>4</sup> 5         Total       15
100-105 DTA/M	5 crec RP.	lits are required for the Associate in Pre-Nursing
HEALTH	-REL	ATED/PE/RECREATIONAL/LEISURE - GROUP A
ART HLTH HLTH HLTH PE	122 101 104 174 170	Health and Safety in Art1Health and Wellness3Stress Management3First Aid3Introduction to Physical Education and Recreation3
QUANTI	TATIV	/E/SYMBOLIC REASONING REQUIREMENT
BUS MATH	217 221	Business Statistics5Introduction to Probability and Statistics5
REQUIR	ED M	ATH: UW & SEATTLE UNIVERSITY TRANSFERS
MATH&	t 141	Precalculus I
<ol> <li>Minim from C substit</li> <li>A total Group than 5 DTA/I in each</li> <li>SOC&amp;</li> </ol>	tum of Group tuted t for 15 s A, E cr in MRP d MRP d i distr.	f 5cr and two courses are required. Minimum of one course A. Minimum of one course from Group B. HLTH 174 may be with any course in Group A. cr required in 3 subject areas. Courses must be selected from B, or C with no more than two from any one group. No more foreign language or ASL. Refer to Associate in pre-Nursing legree worksheet for full list of courses and credit requirements ibution area. nay be substituted with SOC& 201.

<sup>4</sup> Refer to Associate in pre-Nursing DTA/MRP degree worksheet for full list of courses and credit requirements in each distribution area.

## NURSING PROGRAM (RN, LPN)

## AAS, Certificate: SCC

The purpose of the Nursing program, consistent with the mission and objectives of Community Colleges of Spokane, is to prepare men and women to assume entry-level positions as Licensed Practical Nurses (LPN) and Registered Nurses (RN) in the community. Program outcomes are integrated into the philosophy, conceptual framework and course objectives for the program. Program of study includes both nursing and general education courses. Supervised clinical experience is provided in selected nursing areas.

After the first quarter, the student is eligible to take the Washington state exam for the Nursing Assistant Certified (NAC). After completion of the second quarter, the student is eligible for employment as a nurse technician. At the completion of the first four quarters, the student is eligible to write the NCLEX Practical Nursing examination. At the completion of seven quarters of the nursing curriculum, the graduate may write the NCLEX exam for Registered Nurse. The program is approved by the Washington State Nursing Care Quality Assurance Commission. Admission Requirements:

- Physical examination/immunizations/drug screening (completed after acceptance into the nursing program-forms available in the Health Sciences Office, building 9, room 133)
- Any course in which a student earns below 2.0 GPA must be repeated before progressing in the program.
- LPNs and transfer students applying for advanced standing will be evaluated on an individual basis.
- A student may reenroll in a particular nursing class only once. A maximum of one nursing course may be repeated in the nursing

program. A student may appeal to the Academic Advanced Standing Committee to be readmitted to the Nursing Program if there is a special circumstance. If a student withdraws from the nursing program after the tenth day of the quarter and they are failing the course, this will be considered a failure and count as being enrolled in the class.

• Students must have received their HIV/AIDS and Blood Borne pathogen education and certification prior to being admitted into the SCC Nursing program. The certification must meet the Washington state requirement of 7 hours of content. This may be accomplished by taking SURG 105 or may be completed at an outside agency.

## ٩AS

## rerequisites SIOL& 160 General Biology w/Lab<sup>1</sup> BIOL& 241 Human A & P 1<sup>2</sup> SIOL& 242 Human A & P 2<sup>2</sup> SIOL& 260 Microbiology<sup>2</sup> CHEM& 121 Intro to Chemistry: w/Lab<sup>1</sup> ENGL& 101 English Composition I<sup>2</sup> AATH 096 Introductory Algebra<sup>1</sup> SYC& 100 General Psychology<sup>2</sup> SYC& 200 Lifespan Psychology<sup>2</sup> URG 105 Blood-borne Pathogens and HIV/AIDS<sup>1</sup> Prerequisite Credits Included in AAS Degree<sup>2</sup> ..... 30 irst Quarter JURS 116 Nursing Foundations<sup>3</sup> ..... 9 NURS Cultural Diversity in Health Care ...... 1 121 econd Quarter JURS 125 JURS 126 hird Quarter JURS 131 NURS 135 Parental and Perinatal Nursing......5 NURS 136 Mental Health Nursing ..... 5 **Fourth Quarter** NURS 141 Professional Relationships ..... 1 NURS 145 **Fifth Quarter** NURS 215 Advanced Nursing Concepts I<sup>4</sup>..... 10 **Sixth Quarter** NURS 225 NURS 226

Sevent	Seventh Quarter			
NURS	235	Advanced Nursing Concepts III	11	
		Total	11	
	11.			

## 107 credits are required for the AAS.

## **CERTIFICATE** Proroquisites

rierequi	isites	
BIOL&	160	General Biology w/Lab <sup>1</sup>
BIOL&	241	Human A & P 1 <sup>2</sup>
BIOL&	242	Human A & P 2 <sup>2</sup>
BIOL&	260	Microbiology <sup>2</sup>
СНЕМ&	121	Intro to Chemistry: w/Lab <sup>1</sup>
ENGL&	101	English Composition I <sup>2</sup>
MATH	096	Introductory Algebra <sup>1</sup>
PSYC&	100	General Psychology <sup>2</sup>
PSYC&	200	Lifespan Psychology <sup>2</sup>
SURG	105	Blood-borne Pathogens and HIV/AIDS <sup>1</sup>
		$Prerequisite \ Credits \ Included \ in \ Certificate^2 \dots \dots 30$
		Total

## 126

## **First Quarter**

NURS	116	Nursing Foundations <sup>3</sup> 9
NURS	121	Cultural Diversity in Health Care
		Total
Second	l Qua	rter
NURS	125	Introduction to Medical/Surgical Nursing
NURS	126	Pharmacology For Nurses
		Total
Third Q	)uart	er
NURS	131	Intravenous Therapy Concepts
NURS	135	Parental and Perinatal Nursing5
NURS	136	Mental Health Nursing 5
		Total
Fourth	Quar	ter
NURS	141	Professional Relationships 1
NURS	145	Medical Surgical Nursing Concepts 12
		Total

## 74 credits are required for the Certificate.

- <sup>1</sup> Completion of this course with a 2.5 grade or higher is prerequisite to acceptance into the nursing program. Because of the number of applicants for this program, the completion of all prerequisites does not ensure admission into the program at the end of the next available quarter. Blood-borne pathogens and HIV/Aids Certificate meets Washington State requirements, which may be accomplished by taking SURG 105 or may be completed at an outside agency.
- <sup>2</sup> Credits from these select prerequisites are included in the total credits for degree. Completion of this course with a 2.5 grade or higher is prerequisite to acceptance into the nursing program. Because of the number of applicants for this program, the completion of all prerequisites does not ensure admission into the program at the next available quarter.
- <sup>3</sup> Once enrolled in NURS 116, the student must complete the first year within three years.
- <sup>4</sup> Once enrolled in NURS 215, the student must complete the second year within three years.

## **OCEANOGRAPHY PRE-MAJOR**

## AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

Oceanography encompasses all the sciences, thus courses in geology, biology, chemistry and physics are useful. Practicing oceanographers tend to specialize by emphasizing one of these sciences and thus become biological oceanographers, chemical oceanographers, etc. During the first two years of college, students planning a career in oceanography should complete general college requirements and acquire a strong background in mathematics and science.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total9	0

90 credits are required for the AA-DTA.

## ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

## 90 credits are required for the Associate in Biology DTA/MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **OFFICE ASSISTANT**

## Certificate: SCC

The Office Assistant Certificate is a two-quarter program preparing students for entry-level positions. Students completing this program are prepared to format correspondence and reports; write routine letters, emails and memos; and perform a variety of duties depending on the office situations.

## CERTIFICATE First Quarter

## BT 105 Basic Grammar for Business II ...... 5 BΤ BT **Second Quarter** BT 102 Document Processing<sup>1</sup> ..... 5 ΒT 109 Business Communications ...... 5 BΤ 160 BUS 103 Basic Business Math and Electronic Calculators<sup>2</sup> . . . . 5 CATT 102

## 35.5 credits are required for the Certificate.

<sup>1</sup> Keyboarding proficiency of 30 wpm for three minutes with no more than six errors is a prerequisite for BT 102.

<sup>2</sup> BUS 103 may be substituted with BT 128.

## **OFFICE ASSISTANT**

## **Certificate: SFCC**

The Office Assistant Certificate, a three-quarter program of study, prepares students for entry-level office positions. Students receiving this certificate possess skills in keyboarding and formatting, computer software applications, records management, beginning bookkeeping procedures, and business communications.

Students are prepared to greet customers, make and receive telephone calls, format correspondence and reports, maintain business files, and perform general office duties as assigned.

Students have the opportunity to bridge the gap between the classroom and the working world by participating in cooperative work-classroom experience.

## CERTIFICATE

## First Quarter

BT	101	Keyboarding <sup>1</sup>
BT	107	Business Communications <sup>2</sup>
BUS	102	Math Skills for Business
GENST	106	College Success
IS	160	Internet Fundamentals 1
		Total
Second	Qua	rter
ACCT	103	Fundamental Bookkeeping Procedures
BT	102	Document Processing 5
BT	108	Business Communications <sup>2</sup> 3
CAPPS	112	Excel 1
CAPPS	114	Access
		Elective
		Total 14-15
Third Q	uart	er
BT	155	Records Information Management
BT	160	Job Preparation Techniques
BT	231	Office Procedures
BT	266	Cooperative Education Seminar
BT	267	Cooperative Education Work Experience
BT	272	Business Correspondence
		Total

## 47-48 credits are required for the Certificate.

## ELECTIVE

CAPPS 116 PowerPoint 1-2	2
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PROGRAM OUTLINES

## 

- <sup>1</sup> Students may take BT 102 if they possess keyboarding skills at 35 wpm and knowledge of business document formatting. Permission of instructor is recommended.
- $^2\,$  ENGL& 101 may be substituted.

## **OFFICE CLERK**

## **Certificate: SCC**

The Office Clerk Certificate is a one-quarter program preparing students for entry-level positions. Students completing this program are prepared to format correspondence and reports, greet callers, make and receive telephone calls in a professional way, use e-mail effectively, maintain electronic calendars, and perform a variety of duties depending on the office situations.

## CERTIFICATE

## **First Quarter**

		Total 17.5
CATT	102	Introduction to Outlook2.5
BT	231	Office Procedures
BT	105	Basic Grammar for Business II
BT	102	Document Processing <sup>1</sup> 5

## 17.5 credits are required for the Certificate.

<sup>1</sup> Keyboarding proficiency of 30 wpm for three minutes with no more than six errors is a prerequisite for BT 102.

## **OFFICE INFORMATION SYSTEMS**

## AAS: SCC

The Office Information Systems program combines training in information processing, information systems, and office administration to give students the diversified training and background needed to hold positions of responsibility in business offices. Students are trained to use word processing, spreadsheet, database, presentation, web page development and project management software. Because using computer systems to manage information is the fundamental role of administrative office professionals, this program gives students a technical overview of office information systems, basic computer hardware and network administration. Advanced classes provide students with office procedures, project management and office management training.

## AAS

## First Quarter

BT	102	Document Processing
BT	105	Basic Grammar for Business II
BT	151	Business Student Preparation
BUS	103	Basic Business Math and Electronic Calculators <sup>1</sup> 5
		Total
Second	Quar	rter
BT	109	Business Communications
BT	165	Word Processing
CATT	102	Introduction to Outlook2.5
MMGT	223	Customer Service
		Total
Third Q	uarte	er
ACCT&	201	Prin of Accounting I <sup>2</sup> 5
BT	160	Job Preparation Techniques
BT	231	Office Procedures
		Elective
		Total
Fourth	Quar	ter
BT	201	Information Processing
BT	250	Information Technology
BT	272	Business Correspondence
CIS	138	Home Networking2.5
		Total

## **Fifth Quarter**

BT	202	Advanced Information Processing	. 5
BT	260	Administrative Office Management	. 5

CATT CATT CIS	222 223 139	Advanced Microsoft Access I Advanced Microsoft Access II Small Office Home Office Computer Basics	2.5 2.5 2.5
		Total	7.5
Sixth Quarter			

BT	263	Integrated Office Applications
BT	285	Administrative Professional Internship 2
CATT	128	Desktop Publishing 5
CATT	241	Microsoft Project
MMGT	242	Project Management2.5
		Total

## 105.5 credits are required for the AAS.

## ELECTIVE

ACCT	141	QuickBooks 1-5
BUS&	201	Business Law
BUS	204	Introduction to Law
BUS	280	Human Relations in Business
CMST&	210	Interpersonal Communication 5

<sup>1</sup> BUS 103 may be substituted with BT 128.

<sup>2</sup> ACCT& 201 may be substituted with ACCT 151.

## **OFFICE SOFTWARE SPECIALIST**

## **Certificate: SCC**

Students enrolled in this four-quarter certificate program are trained to use word processing, spreadsheet, database and presentation software; students also format and proofread manuscripts, tables, reports, correspondence and other documents. Computers have become an integral part of every office. The ability to learn and apply software functions is important for all office workers.

## CERTIFICATE

## **First Quarter**

BT	102	Document Processing	5
BT	105	Basic Grammar for Business II	5
BT	151	Business Student Preparation	5
		Total	5
Second	Qua	rter	
BT	109	Business Communications	5
BT	165	Word Processing.	5
BUS	103	Basic Business Math and Electronic Calculators <sup>1</sup>	5
CATT	102	Introduction to Outlook2	.5
		Total	5
Third Q	uart	er	
BT	160	Job Preparation Techniques	3
BT	201	Information Processing	5
BT	231	Office Procedures	5
MMGT	223	Customer Service	3
		Total	6
Fourth	Quar	ter	
BT	202	Advanced Information Processing	5
BT	250	Information Technology	5
CATT	128	Desktop Publishing	5
		Total	5

## 63.5 credits are required for the Certificate.

<sup>1</sup> BUS 103 may be substituted with BT 128.

## **ORTHOTIC-PROSTHETIC TECHNICIAN**

## AAS, Certificate: SFCC

Orthotics and Prosthetics is the design and fabrication of braces and artificial limbs and is one of today's rapidly growing health-related professions. Advancing materials technology and an increasing demand for orthotic-prosthetic services has led to an increase in the amount of technical support needed. There are many opportunities for the students completing a formal training program in orthotics and prosthetics.

The primary objective is to train students in the general fabrication procedures of orthotic and prosthetic devices, which include working with plastic, metal, leather, plaster, and orthotic and prosthetic components. Subjects covered include related human anatomy, technology of materials, hand and power tools, equipment, and laboratory safety.

A certificate is awarded at the completion of the Orthotics program and at the completion of the Prosthetics program. An associate in applied science degree in Orthotics and Prosthetics is granted to students who successfully complete both programs.

## AAS

General Education Courses <sup>1</sup> 18	
Total	

## **First Quarter**

Second Quarter				
		Total		
OR-PR	114	Below Knee Prosthetics 10		
OR-PR	112	Related Human Anatomy 3		
OR-PR	111	Prosthetic Tools and Materials 4		

OR-PR	122	Related Anatomy of the Above Knee Amputation 3
OR-PR	124	Advanced Below Knee Prosthetics
OR-PR	126	Above-the-Knee Prosthetics
		Total
Third Q	uart	er
OR-PR	132	Related Anatomy (Upper Extremity)
OR-PR	134	Below Elbow Prosthetics
OR-PR	136	Above Elbow Prosthetics
		Total
Fourth	Ouar	ter
OR-PR	138	Clinical Prosthetics 6
ORTR	100	Total
Eifth O	uarto	r
	1/1	Orthopodic Equipment and Materials
OR-IR	141	Spinal Apatomy Polated to Orthotics
OR-PR	144	Spinal Anatomy Related to Ortholics
	111	Total
civith O		
Sixui Q	uaru	
OR-PR	152	Foot and Ankle Skeletal Structure
OR-PR	154	Orthotic Shoe Fabrications 4
OR-PR	156	Ankle-Foot Orthosis 10
		Total
Sevent	h Oua	arter

## enth Quarte

OR-PR	162	Related Anatomy for the Above Knee Orthotics 1	1
OR-PR	164	Above the Knee Orthotics	3
OR-PR	172	Upper Extremity Anatomy Related to Orthotics 1	1
OR-PR	174	Upper Extremity Orthotics	7
		Total	7
Eighth	Quar	ter	
OR-PR	178	Clinical Orthotics	5
		Total	5

## 132 credits are required for the AAS.

## CERTIFICATE ORTHOTICS General Education Courses<sup>1</sup>.....9 **First Quarter** OR-PR 141 Orthopedic Equipment and Materials ..... 4 OR-PR 142 OR-PR 144 Spinal Orthotics ...... 10 **Second Quarter** OR-PR 154 OR-PR 156 Ankle-Foot Orthosis ..... 10 **Third Quarter** OR-PR 162 Related Anatomy for the Above Knee Orthotics.....1

5.	OR-PR	172	Upper Extremity Anatomy Related to Orthotics 1
-	OR-PR	174	Upper Extremity Orthotics7
			Total
ł	Fourth	Qua	rter
t	OR-PR	178	Clinical Orthotics 6
)			Total6
	66 cred	lits a	re required for the Certificate.
_	PROSTI	HETIC	CS
3			General Education Courses <sup>1</sup> 9
5			Total9
1	First Q	uarte	r
± >	OR-PR	111	Prosthetic Tools and Materials 4
) )	OR-PR	112	Related Human Anatomy 3
7	OR-PR	114	Below Knee Prosthetics
			Total
2	Second	Qua	rter
1	OR-PR	122	Related Anatomy of the Above Knee Amputation 3
)	OR-PR	124	Advanced Below Knee Prosthetics
7	OR-PR	126	Above-the-Knee Prosthetics
	Thind O		Iotal
2		100	er Deleted Angleman Estimation
3	OR-PR	132	Related Anatomy (Upper Extremity)
7	OR-PR	134	Above Elbow Prosthetics 7
7	01111	100	Total
	Fourth	Quar	rter
5	OR-PR	138	Clinical Prosthetics
<b>b</b>			Total
1	66 cred	lits a	re required for the Certificate.
± 3	GENER/	AL ED	UCATION COURSES
)	BT	107	Business Communications
7	BUS	103	Basic Business Math and Electronic Calculators 5

BT	107	Business Communications
BUS	103	Basic Business Math and Electronic Calculators
CMST	121	Job Communication Skills
HLTH	174	First Aid.
HS	136	Improving Interpersonal Communication
MATH	035	The Metric System

<sup>1</sup> A total of 9 general education course credits are required for a certificate. A total of 18 general education course credits are required for the AAS degree.

## **OUTPATIENT MEDICAL CODER**

## **Certificate: SCC**

This program offers a one-year certificate and prepares students to work with health information in a range of settings including physicians' offices, nursing facilities, ambulatory care clinics and health insurance agencies. Training in realistic work environments include coding and abstracting clinical data, managing computer databases, health-related legal principles and policies, and knowledge of the Health Insurance Portability and Accountability Act (HIPAA) regulations. Upon completion of the program, students are eligible to take the national Certified Coding Associate (CCA) certification exam offered by the American Health Information Management Association (AHIMA). A GPA of 2.0 or higher must be maintained in all classes.

## CERTIFICATE

1

## **First Quarter**

CMST&	210	Interpersonal Communication	. 5
HIT	104	Introduction to Health Information	. 3
HIT	160	Computer Theory in Health Information	. 3
HUC	108	Human Anatomy	. 5
HUC	125	Medical Terminology	. 5
		Total.	21
Second	Qua	rter	
HED	109	Human Physiology and Disease	. 5
HIT	101	Health Record Systems	. 5
HIT	161	Health Management Information Systems	. 3
HIT	212	Acute Care Coding.	. 5
		Total	18

## 129 PROGRAM OUTLINES

. 2 . 3 . 5 . 1

Third C	Quart	er
HIT	129	Pathophysiology
HIT	162	Electronic Health Record: Meditech
HIT	214	Ambulatory Care Coding 5
HIT	216	Reimbursement Strategies for HIM Professionals 5
HUC	105	Legal Concepts in Health
		Total
Fourth	Quar	rter
BUS	103	Basic Business Math and Electronic Calculators 5
CMST	227	Intercultural Communication
HIT	203	Clinical Practice
		Total

73 credits are required for the Certificate.

## PARALEGAL

## **AAS, Certificate: SCC**

This regionally respected ABA approved program consists of basic and specialty courses designed to prepare students for employment in the legal services field. An AAS degree is awarded after completion of 94-99 credits of required coursework (depending on the math requirement). If full class loads are taken each quarter, the program requires 6-8 quarters to complete. Most specialty classes are taught early morning or evening. The supervised legal work experience required for graduation or the internship must be approved by the program coordinator. Ask a counselor or faculty adviser about transfer articulation agreements with four-year institutions.

Note: A Paralegal graduate does not receive a license to practice law; thus performing legal work directly for the public or giving legal advice directly to the public constitutes the unauthorized practice of law.

Students working toward the AA degree for transfer to a four-year institution should consult individually with an adviser or counselor for planning the AA degree program. For information on AA degree requirements, refer to the Degree and Certificate Requirements section of this catalog. More information on specific transfer programs can be found in the academic programs section of this catalog. A grade of 2.0 or higher in each class (including prerequisites) are required for both the AAS degree and the Certificate degree.

Students should begin early to meet the prerequisites for LA 120 Law Office Computing, which are 2 approved college level computer classes. Notice to students: There is a difference between how the college structures its classes and credits (five credit quarter model) and the American Bar Association's minimum credit requirements for approved programs with respect to General Education courses (semester model credits converted to SCC's quarter system). Generally the result is a student will be required to complete 30 credits of General Education (GE) classes to fulfill the student's 27 GE credit minimum as required by the ABA.

## AAS

## Prerequisites

ΒT 109 Business Communications<sup>1</sup> Basic Courses<sup>2</sup> ..... 26 General Education Courses<sup>2</sup>...... 27 Other Courses<sup>2</sup>..... 0-5 Specialty Courses-AAS <sup>3</sup>..... 29 

90-95 credits are required for the AAS.

## CERTIFICATE

Basic Courses	. 21
General Education Courses <sup>13</sup>	. 10
Other Courses <sup>5</sup>	0-5
Specialty Courses-Certificate <sup>6</sup>	. 24
Supervised Legal Work Experience <sup>4</sup>	8
Total	6-68

63-68 credits are required for the Certificate.

## **BASIC COURSES**

BUS	204	Introduction to Law
LA	100	Legal Careers Orientation
LA	101	Introduction to Paralegalism
LA	105	Washington and Idaho Court Rules
LA	110	Legal Research and Writing
LA	118	Instrument Drafting
LA	120	Law Office Computing 5
LA	130	Legal Ethics 1
LA	135	Professional Effectiveness 1
GENER	AL ED	UCATION COURSES

ENGL& 101	English Composition I	5
MATH& 141	Precalculus I	5

## **OTHER COURSES**

BUS	104	Business Mathematics	5

## SPECIALTY COURSES-AAS

ACCT	151	College Accounting I
ACCT&	201	Prin of Accounting I 5
LA	201	Introduction to Probate
LA	207	Domestic Relations and Estate Law
LA	211	Debtor-Creditor and Bankruptcy 3
LA	215	Commercial Transaction
LA	217	Business Organizations 3
LA	218	Employment Law
LA	219	Criminal Law and Procedure
LA	220	Torts
LA	221	Property and Real Estate Transactions I
LA	225	Trial Preparation and Procedures
LA	230	Insurance Law
LA	240	Special Issues Seminar 1-10
LA	285	Legal Office Internship 1-3
MSEC	101	Medical Terminology and Anatomy 5
MSEC	102	Medical Terminology and Anatomy 5

## SPECIALTY COURSES-CERTIFICATE

ACCT	151	College Accounting I	5
ACCT&	201	Prin of Accounting I.	5
BUS	204	Introduction to Law	5
LA	201	Introduction to Probate	3
LA	207	Domestic Relations and Estate Law	3
LA	211	Debtor-Creditor and Bankruptcy	3
LA	215	Commercial Transaction	3
LA	217	Business Organizations	3
LA	218	Employment Law	3
LA	219	Criminal Law and Procedure	3
LA	220	Torts	3
LA	221	Property and Real Estate Transactions I	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	240	Special Issues Seminar 1-1	10
LA	285	Legal Office Internship 1-	-3
MSEC	101	Medical Terminology and Anatomy	5
MSEC	102	Medical Terminology and Anatomy	5

## SUPERVISED LEGAL WORK EXPERIENCE

LA	245	Supervised 1	Legal V	Nork E	experience.						8
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- <sup>1</sup> Prior to acceptance into the course of study leading to the AAS degree in paralegal studies, students must either achieve a 60 percentile/42 scaled score or better on the written section of the college's assessment test or receive a 2.0 grade or better in BT 109. BT 109 may be substituted with ENGL& 101 if completed with a grade of 2.0 or better.
- <sup>2</sup> See department program coordinator for additional list of courses. English& 101 is a prerequisite for LA 110, but is not a requirement for the certificate program.
- <sup>3</sup> Specialty courses must total 29 credits for the AAS degree.
- <sup>4</sup> Students must complete 8 credits.
- <sup>5</sup> If the student chooses BUS 104 as a math requirement, student must complete an additional 5 credits from the list of communication, social science, or humanities electives.
- <sup>6</sup> Prerequisites for all Legal Specialty Courses: LA 100.
- <sup>7</sup> Prerequisites are ENGL& 101 and LA 101.

- <sup>8</sup> Prerequisites are LSEC 239 or 249 and a college-level computer course recommended to be selected from the BT, CIS, or LSEC departments' offerings.
- <sup>9</sup> ACCT& 201 may be substituted with ACCT 151.
- <sup>10</sup> Because each course is different, LA 240 may be repeated as frequently as desired and all credits received may be applied toward the specialty credit requirements for this degree.
- <sup>11</sup> Maximum of 3 credits of internship may be applied toward this degree.
- <sup>12</sup> Specialty courses must total 24 credits for the certificate.
- <sup>13</sup> 5 credits in Social Science and/or Humanities are required for the Certificate program only. Please see department program coordinator for additional list of courses.
- <sup>14</sup> BUS 204 is required for the AAS degree only.

## PHARMACY PRE-MAJOR

## AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

Pharmacists have a vast number of career opportunities including community and hospital pharmacies, manufacturing industry, medical representatives, sales people and researchers. Pharmacists must be scientifically motivated and be able to work with orderliness and precision. Pharmacists are university graduates who have successfully completed the state pharmacy board examination and have a license to practice. Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **AA-DTA**

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	0
Total9	0
90 credits are required for the AA-DTA.	

## ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Total							 	 			 ٥n
Suggested	Cot	irses	to (	01	nside	er⊥	 	 	 	 	 90

## 90 credits are required for the Associate in Biology DTA/MRP.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## PHARMACY TECHNICIAN

## AAS, Certificate: SCC

The Pharmacy Technician program trains students in all phases of the pharmacy field: drug products, calculations, dosages, dispensing techniques, inventory management, and Washington pharmacy law. Graduates will be prepared to work in both community and hospital pharmacy settings.

Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter and must be maintained in all classes. The student may enroll in liberal arts either preceding or following the professional curriculum. For an associate in applied science degree, the student must complete 30 credit hours of required courses and 7 hours of department approved electives numbered 100 or above in addition to the one-year professional curriculum.

Admission Prerequisite Requirements:

- High school diploma or GED certificate
- Washington State Patrol (WSP) background check
- Drug Screening
- Typing test with a score of 35-40 wpm or completion of BT 101 within the last 5 years
- Interview with pharmacy technician instructor
- Three letters of recommendation
- Appropriate scores on one of the following: ASSET or COMPASS
- Students may repeat a pharmacy technician class once, but it must be repeated within two years
- Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter

 If the student does not pass a winter quarter class and has to repeat the class the next year, they must also pass the technique skills for the lab portion of PHARM 123 and 124.

## AAS

		Electives <sup>1</sup>
		Required Courses for AAS Degree
		Total
First Qu	artei	r
HED	108	Human Anatomy
HED	125	Medical Terminology 5
PHARM	101	Introduction to Pharmacy Technician
PHARM	115	Mathematics for Pharmacy Technicians5
PHARM	119	Pharmacology
		Total
Second	Quar	rter
CMST	127	Leadership Development 3

## S

Third O	uarte	۲.
		Total
PHARM	131	Pharmacy Law and Ethics 3
PHARM	124	Community Pharmacy Dispensing and Management . 3
PHARM	123	Hospital Pharmacy Dispensing and Management 5
PHARM	122	Advanced Pharmacology5
ENGL	189	Writing for Vocational Students 2
CMST	127	Leadership Development 3
	-	

## 1

PHARM 130	Entering the Work Environment	2
PHARM 132	Community Pharmacy	6
PHARM 133	Hospital Pharmacy.	6
	Total	4

## 93 credits are required for the AAS.

## CERTIFICATE

## **First Quarter**

HED	108	Human Anatomy	5
HED	125	Medical Terminology	5
PHARM	101	Introduction to Pharmacy Technician.	3
PHARM	115	Mathematics for Pharmacy Technicians	5
PHARM	119	Pharmacology	3
		Total	1
Second	Quar	rter	
CMST	127	Leadership Development	3
ENGL	189	Writing for Vocational Students	2
PHARM	122	Advanced Pharmacology	5
PHARM	123	Hospital Pharmacy Dispensing and Management	5
PHARM	124	Community Pharmacy Dispensing and Management.	3
PHARM	131	Pharmacy Law and Ethics	3
		Total	1
Third O	uarte	2 <b>°</b>	

	Total	4
PHARM 133	Hospital Pharmacy.	6
PHARM 132	Community Pharmacy	6
PHARM 130	Entering the Work Environment	2

## 56 credits are required for the Certificate.

## **OPTIONAL ELECTIVES TO CONSIDER**

BUS&	101	Intro to Business.	5
BUS	280	Human Relations in Business	5
ENGL&	102	Composition II	5
MATH&	107	Math in Society	5
MMGT	101	Principles of Management	5
SOC	211	Marriage and the Family	5
REQUIR	ED CO	DURSES FOR AAS DEGREE	
CIS	110	Introduction to Computer Applications	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
DSVC &	100	Conoral Psychology	Б

PSYC& 100 General Psychology..... 5 SOC& 101 Intro to Sociology......5

<sup>1</sup> Departmentally approved elective numbered 100 or above.

## **PHILOSOPHY PRE-MAJOR**

## AA-DTA: SCC, SFCC

Philosophy is the study of fundamental intellectual problems concerning reality, knowledge, reason, and value, and classical and contemporary attempts at their solution. It is hoped that the reading of classical treatments will make the student sensitive to the problems in their historic dimensions and that knowledge of related contemporary literature will encourage students to participate in the development of their own critical faculties.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

## 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **PHOTOGRAPHY**

## AAS: SFCC

Founded in 1965, the Photography program at Spokane Falls Community College is an intensive two-year study of visual communications. Students explore career opportunities in commercial illustration, corporate communications, photojournalism and portraiture, and have opportunities to interact with industry through field trips, guest speakers and cooperative work experiences.

First-year students learn the fundamentals of lighting and composition while surveying career fields. Second-year students complete projects with real world scenarios and focus on prevailing trends in technology.

In addition to teaching technical skills and artistic design, the program stresses positive work habits and helps students develop personal career goals.

With guidance from an advisory committee made up of employers and working professionals, the Photography program is constantly updated to reflect current industry standards.

## AAS

## **First Quarter**

BUS 103	Basic Business Math and Electronic Calculators 5
PHOTO 101	Introduction to Photography 5
PHOTO 102	Photographic Appreciation
PHOTO 126	Digital Photography I 5
	Total
Second Qu	arter
BT 107	Business Communications <sup>1</sup>
PHOTO 111	Studio Photography I 4
PHOTO 112	Photographic Design
PHOTO 115	Photography Lab II
	Photography Approved Electives
	Total
Third Quar	ter
ART 105	Color and Design
BT 108	Business Communications <sup>1</sup>
PHOTO 121	Location Photography I 4
PHOTO 125	Photography Lab III
	Photography Approved Electives
	Total
Fourth Qua	rter
PHOTO 200	Photography Media 4
PHOTO 205	Photography Lab IV
	Communication Electives 5
	Photography Approved Electives
	Total 15-18

## **Fifth Quarter**

GENST 109 PHOTO 215 PHOTO 227	Applied Critical Thinking3Photography Lab V.3Business of Photography3Photography Approved Electives6-8Total.15-17
Sixth Quarte	2r
PHOTO 225 PHOTO 266	Photography Lab VI

14 10
8-10
2-5
1
3

## 96-106 credits are required for the AAS.

## **COMMUNICATION ELECTIVES**

BUS	280	Human Relations in Business
HS	136	Improving Interpersonal Communication 5
рнотос	RAPI	HY APPROVED ELECTIVES
ART	127	Visual Arts Special Workshops 1-15
ART	189	Printmaking 4
ART	191	Screen Printing
ART	192	Printmaking, Intaglio 4
ART	193	Lithography (Printmaking) 4
GRDSN	155	FreeHand I 2
GRDSN	156	Illustrator I 2
GRDSN	157	QuarkXPress I 2
GRDSN	158	PhotoShop I 2
GRDSN	160	Director
GRDSN	162	MacIntosh OS X 2
GRDSN	163	InDesign I 2
GRDSN	164	Illustrator II
GRDSN	165	QuarkXpress II
GRDSN	166	PhotoShop II 2
GRDSN	167	Fireworks 2
GRDSN	168	InDesign II 2
GRDSN	171	Flash 2
GRDSN	172	Dreamweaver 2
GRDSN	173	Flash II 2
GRDSN	174	Dreamweaver II
GRDSN	200	Graphic Design Workshop 1-5
PHOTO	120	Photographic Arts 3
PHOTO	131	Introduction to Photojournalism 3
PHOTO	132	Advanced Black and White Photography 3
PHOTO	133	Color Lab
PHOTO	231	Studio Photography II
PHOTO	232	Portraiture
PHOTO	233	Location Photography II
PHOTO	234	Digital Photography II 5
PHOTO	235	Nature and Landscape Photography 5
PHOTO	236	Photography Workshop 1-4
PHOTO	237	Introduction to Documentary DV Production 3
PHOTO	267	Cooperative Education Work Experience 1-5
<sup>1</sup> BT 107	and 1	08 may be substituted with ENGL& 101 or ENGL 105.

<sup>2</sup> In addition to listed electives, student may select independent study with approval of program instructor.

## PHYSICAL THERAPIST ASSISTANT

## AAS: SFCC

SFCC offers a two-year program which includes study in anatomy and physiology, social science, technical physical therapy courses and practical clinical experience in area health care facilities affiliated with the college. The program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association (APTA). The technical courses for the Physical Therapist Assistant (PTA) program are not designed to transfer to four-year schools.

Physical therapist assistants duties include: a) designing exercise programs and treatments that are within the plan of care proposed by the physical therapist b) training patients to use special equipment that will make life easier; c) applying equipment such as electrical stimulation and ultrasound which decrease pain and increase functions; and d)

keeping records and reporting to the physical therapist on the patient's progress.

Physical therapist assistants work with all ages and are employed in a wide variety of settings, including hospitals, rehabilitation centers, pediatric facilities or school systems, private physical therapy clinics, home health care agencies, and extended care facilities.

Admission Requirements:

- Completion of the physical therapist assistant program application booklet which is available at the SFCC counseling center. Applications are accepted during the winter quarter preceding fall quarter entry into the program.
- Appropriate placement scores in assessment tests for ENGL& 101 and Math.
- Preferably a minimum of 2.0 in BIOL & 241
- Documentation of either paid or volunteer experience in a medical setting (preferably physical therapy).
- Current immunizations and passing of physical examination, drug screening and Washington State Patrol criminal background check.

The PTA program incorporates a selective process for admission. This process uses a point system based on coursework and experience as outlined in the application. Please be aware that the completion of all prerequisites does not ensure admission to the program.

## AAS

Prerequ	isites	3					
BIOL&	241	Human A & P 1 <sup>1</sup>					
ENGL&	101	English Composition I <sup>2</sup>					
MATH	092	Elementary Algebra II <sup>2</sup>					
PSYC&	100	General Psychology <sup>2</sup> 5					
		Total					
First Qu	ıarte	r					
PTA	101	Introduction to Physical Therapy					
PTA	102	Physical Therapy Terminology					
PTA	106	Regional Human Anatomy and Physiology					
PTA	110	PTA Procedures I: Basic PT Procedures					
		Total					
Second	Qua	rter					
PTA	103	Applied Anatomy					
PTA	104	Survey of Pathophysiology					
PTA	105	Introduction to Neuroscience					
		Total					
Third Q	uarte	er					
PTA	111	PTA Procedures II: PT Modalities7					
PTA	112	PTA Procedures III: Functional Restoration7					
PTA	151	Clinical Experience I					
		Total					
Fourth	Quar	ter					
PTA	202	Introduction to Orthopedics					
PTA	210	PTA Procedures IV: Therapeutic Exercise					
PTA	212	PTA Procedures VI					
PTA	251	Clinical Experience II					
PTA	254	Clinical Seminar II					
		Total					
Fifth Qu	ıarte	r					
PTA	201	Issues in Physical Therapy and Health Care					
PTA	211	PTA Procedures V: Rehabilitation Applications7					
PTA	252	Clinical Experience III 3					
PTA	255	Clinical Seminar III 1					
		Total					
Sixth Q	uarte	3 <b>r</b>					
PTA	253	PTA Clinical Affiliation 12					
		Total					
103 cree	dits a	re required for the AAS.					
1 Must h	ave h	een taken within the last five years and completed with a 2.0					

- <sup>1</sup> Must have been taken within the last five years and completed with a 2.0 grade or better. Coursework older than five years will be evaluated on a caseby-case basis. BIOL& 160, AP Biology or high school biology or permission of instructor is a prerequisite for BIOL& 241.
- <sup>2</sup> Admission preference is given to students who complete these courses prior to entry into the program. May be substituted with approval of program chair.

## **PHYSICS PRE-MAJOR**

## AA-DTA, AS-T #2: SCC, SFCC

Physics is the science dealing with the properties, changes and interactions of matter and energy. It is the study of basic natural laws.

Physicists work in research at many industrial centers; they are employed by government agencies at all levels. Educational institutions provide career opportunities for physics graduates. Students pursuing a major in physics will also study mathematics and chemistry.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Total		 	
Suggested Courses to Consider	1	 	. 90

90 credits are required for the AA-DTA.

## AS-T #2

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

## 90 credits are required for the AS-T #2.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## POLITICAL SCIENCE PRE-MAJOR

## **AA-DTA: SCC, SFCC**

Political Science is the social science concerned chiefly with the description and analysis of political systems, human behaviors, ideologies, governmental institutions, processes and decision-making procedures.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Total.....

## 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## PROFESSIONAL TRUCK DRIVER TRAINING

## **Certificate: SCC**

This program is in collaboration with a local driver training company and Spokane Community College to provide both classroom theory and on-the-road training as professional truck drivers. Students learn not only classroom theory, but also gain truck driving experience.

## CERTIFICATE

## First Quarter

HEQ101Trucking Theory12-4HEQ102Trucking Applications14-6HEQ103Trucking Practical Shop Procedures24HEQ104Trucking Practical Shop21Total

## Second Quarter

		Total	
HEQ	267	Cooperative Education Work Experience 13	
HEQ	266	Cooperative Education Seminar 1	

## 25-29 credits are required for the Certificate.

- <sup>1</sup> Students seeking a Class B Commercial Drivers License (CDL) are required to take HEQ 101 for 2 credits and HEQ 102 for 4 credits. Students seeking a Class A Commercial Drivers License (CDL) are required to take HEQ 101 for 4 credits and HEQ 102 for 6 credits.
- <sup>2</sup> Students seeking a Class B Commercial Drivers License (CDL) are NOT required to take HEQ 103 and HEQ 104. Students seeking a Class A Commercial Drivers License (CDL) are required to take HEQ 103 and 104.

## **PROJECT MANAGEMENT CERTIFICATE**

## **Certificate: SCC**

This certificate program will prepare students to understand the concepts and methods associated with project initiation, planning, execution, monitoring and controlling, and closing phases of project management. Students will utilize computer applications to manage and control project tasks, communication, costs, scheduling and quality. In addition, this program includes leadership and teambuilding development so vital for successful project management in the workplace. Students can expect to increase job skills for entry-level employment as well as career advancement in the green economy. Entrance into the Project Management Certificate program requires the permission of the instructor.

## CERTIFICATE

First Qu	ıarte	r
CATT	241	Microsoft Project
CATT	242	Advanced Microsoft Project2.5
MMGT	232	Project Leadership
MMGT	243	Fundamentals of Project Management
		Total

15 credits are required for the Certificate.

## **PSYCHOLOGY PRE-MAJOR**

## AA-DTA: SCC, SFCC

Psychology, properly so called, is the study of behavior and mental processes of all organisms, not just humans. Students may pursue psychology as a profession or as an interest.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	90
Total	90

## 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **RADIOLOGY TECHNOLOGY**

## AAS: SCC

Radiologic technologists are an integral part of a team of healthcare workers providing patient care. Their primary duties include producing radiographic examinations that aid the physicians in diagnosing diseases and/or injuries. The radiologic technologist performs examinations at the request of a physician.

The technologist's primary role is obtaining top quality radiographic images while providing patient care. Radiologic departments can be found in hospitals, freestanding clinics and physician offices. While in the program the students become proficient at performing examinations in general radiography, fluoroscopy, surgery, trauma and intensive care units.

The program meets the criteria set forth by the Joint Review Committee on Education in Radiologic Technology (JRCERT) in collaboration with academic guidelines set by the American Society of Radiologic Technologists (ASRT). Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Dr. Suite 2850, Chicago IL 60606-3182, Phone: (312) 704-5300 Fax: (312) 704-5304 Upon completion and graduation of the program the students are able to take the national registry examination given by the American Registry of Radiologic Technologists (ARRT).

Each required course for graduation must be completed with a grade of 2.0 or better before proceeding to the next quarter. All clinicals must be completed with a grade of 2.5 or better.

Washington State Patrol background checks and drug screening are completed at the beginning of the program and if there is a finding, clinical sites may not accept the student. This could prevent program completion, inability to take the national exam, and future employment due to a failed background check and/or drug screening.

Admission Requirements:

- Radiology courses are limited to students of the Radiology Technology program.
- A minimum score of 41 on the ASSET test is required in each session.
- Students applying to the course must have completed 80 hours as a volunteer or employee in a patient care setting, and 10 of these hours need to be completed in a radiology department.
- Interviews will be conducted as part of the selection process for the Radiology program.
- Students must provide three confidential letters of recommendation.
- Physical examination, immunizations, and drug screening are required (after being accepted into the Radiology Technology program). Forms are available in the SCC registration office.
- All math and science prerequisites must have been completed within the last five years with a grade of 2.5 or better. All documentation must be submitted by June 25th of the year of application.

## AAS Prerequisites

BIOL&	241	Human A & P 1 <sup>1</sup>
BIOL&	242	Human A & P 2 <sup>1</sup>
CIS	110	Introduction to Computer Applications
ENGL&	101	English Composition I <sup>2</sup>
HED	125	Medical Terminology
MATH	099	Intermediate Algebra <sup>2</sup>
PHYS	100	Introductory Physics
First Qu	larte	r
RAD	111	Radiographic Positioning I 5
rad	113	Patient Care and Ethics I
RAD	114	Radiographic Image Evaluation I
RAD	115	Fuch's Radiographic Principles 1
RAD	116	Clinical Education I
		Total
Second	Qua	rter
RAD	121	Radiographic Positioning II
RAD	123	Patient Care and Ethics II 2
RAD	124	Radiographic Image Evaluation II
RAD	125	Fuch's Radiographic Principles II
RAD	126	Clinical Education II
RAD	127	Mobile/Surgical Procedures
		Total
Third Q	uarte	
RAD	131	Radiographic Positioning III 2
RAD	132	Radiation Physics
RAD	134	Radiographic Image Evaluation III
RAD	136	Clinical Education III
		Total
Fourth	Quar	ter
RAD	141	Radiographic Positioning IV
RAD	144	Radiographic Image Evaluation IV
RAD	145	Fuch's Radiographic Principles III
RAD	146	Clinical Education IV
		Total
Fifth Qu	ıarte	r
RAD	212	Quality Management 1
RAD	213	Various Modalities 2

PROGRAM OUTLINES

214	Radiographic Image Evaluation IV
215	Radiation Biology and Protection 2
216	Clinical Education V
	Total
)uarte	er
211	Radiographic Positioning V
223	Radiation Pathology
224	Radiographic Image Evaluation V
225	Skull and GI Review 1
226	Clinical Education VI
	Total
h Qua	arter
235	Pharmacology/Venipuncture1
236	Clinical Education VII
237	Review and Registration Preparation
238	Cat Scan
	214 215 216 211 223 224 225 226 <b>h Qua</b> 235 236 237 238

## 113 credits are required for the AAS.

<sup>1</sup> This course has a prerequisite of BIOL& 160.

<sup>2</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

## **RESPIRATORY CARE**

## AAS: SCC

Respiratory Care is a dynamic, high tech, high touch field involving direct patient care. This field is a life supporting, life enhancing allied health care profession practiced under qualified medical direction. Services provided to patients with disorders of the cardiopulmonary system include diagnostic testing, therapeutics, monitoring and rehabilitation. Patient, family and public education are essential to the mission of the profession. Respiratory care services are provided in all health care facilities (acute, subacute/long term, skilled nursing) and in the home.

This program is accredited by The Commission on Accreditation for Respiratory Care (www.coarc.com). Commission on Accreditation for Respiratory Care, 1248 Harwood Road Bedford, Texas 76021-4244 (817) 283-2835.

Upon completion of the program, the graduate qualifies for an associate in applied science degree and is eligible to apply to take the national entry-level (CRT certification) and advanced practitioner (RRT-Registered Respiratory Therapist) examinations offered by the National Board for Respiratory Care (NBRC). Additionally, graduates are qualified to sit for the NBRC specialty exams for pulmonary diagnostics and neonatal pediatric specialty.

Admission Requirements:

- High school diploma or GED certificate
- Interview with respiratory care instructor
- Appropriate scores in one of the following: ASSET or COMPASS
- Computer skills recommended
- Active e-mail account recommended
- American Heart Association: HCP CPR card (within six months) recommended
- All math and science courses must have been taken within the last five years and must have been completed with a 2.5 grade or better
- A GPA of 2.5 is necessary to enter the Respiratory Care program and a GPA of 2.0 must be maintained throughout the entire program.

## AAS

## Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
BIOL&	260	Microbiology
СНЕМ&	121	Intro to Chemistry: w/Lab
MATH	099	Intermediate Algebra
First Qu	iartei	r
ENGL&	101	English Composition I
NICOTT	440	T1 · 1 · 1

ENGL&	101	English Composition I	5
NCT	113	Electrophysiology	4
RT	110	Physical Science for Respiratory Care	3

RT	112	Pharmacology and Medical Terminology I 1
		Total
Second	Qua	rter
CMST&	210	Interpersonal Communication 5
NCT	123	History and Physical 3
RT	120	Respiratory Care Fundamentals II 4
		Total
Third Q	uart	er
RT	130	Fundamentals of Spirometry and Blood Gas Analysis . 3
RT	131	Cardiopulmonary Anatomy and Physiology 1
RT	132	Respiratory Care Fundamentals III
RT	133	Pharmacology and Medical Terminology II 3
RT	134	Respiratory Care Clinical I
		Total
Fourth	Quar	ter
RT	140	Respiratory Care Fundamentals IV 2
RT	141	Medical/Surgical Respiratory Care 1
RT	142	Computer Applications for Respiratory Care 1
RT	143	Respiratory Care Clinical II
		Total9
Fifth Qu	uarte	r
RT	210	Critical Care I 6
RT	211	Advanced Cardiac Life Support 2
RT	212	Respiratory Care Clinical III 5
RT	213	Pulmonary Volumes, Diffusion and Instrumentation 3
RT	214	Pulmonary Diagnostics Clinical I
KI	215	Cardiopulmonary Pathophysiology 1
		lotal
Sixth Q	uarte	
RT	220	Critical Care II
RT DT	221	Perinatal Respiratory Care
KI DT	222	Kespiratory Care Clinical IV
KI DT	223	Advanced Pulmonary Diagnostics
KI	224	
		Iotal
Seventi	h Qua	arter
RT	230	Current Trends in Respiratory Care
KI DT	231	Patient Management and Problem Solving
KI DT	232	Sub-Acute/Kehabilitation Kespiratory Care
KI DT	233	Prominentals of Management in Health Care2
K1	234	
	_	IUlai

111 Respiratory Care Fundamentals I.....

98 credits are required for the AAS.

RT

## **RETAIL MANAGEMENT**

## AAS, Certificate: SFCC

Retail Management is a two-year specialized management program designed to prepare both men and women for responsible managerial careers in retail merchandising. Closely allied with the Fashion Merchandising program, emphasis is placed on inventory control procedures and techniques, in-store promotion, budgeting, buying techniques and retail salesmanship.

The Retail Management Certificate prepares individuals to manage a variety of retail sales operations or lines of merchandise. Students who complete the ten course Retail Management Certificate program will develop a clear sense of the scope of a career in the field of retail management. The program serves both entry-level job candidates and incumbent employees. The curriculum includes foundational courses in both written and oral communication, business math, human relations, and microcomputer applications. Students also complete specific business and management courses in accounting, management, marketing, retailing, and human resource management. After successful completion of the required coursework, students will receive a Retail Management Certificate. This certificate is endorsed by the Western Association of Food Chains (WAFC). 135

AAS			
First Qu	ıarte	r	
BT	107	Business Communications <sup>1</sup>	. 3
BUS&	101	Intro to Business.	. 5
BUS	103	Basic Business Math and Electronic Calculators	. 5
FMDSE	111	Fashion Merchandising Seminar <sup>2</sup>	. 1
FMDSE	267	Cooperative Education Work Experience <sup>2</sup>	. 1
MMGT	181	Leadership Training-DEC	. 1
		Total.	16
Second	Qua	rter	
CMST&	101	Introduction to Communication	. 5
FMDSE	112	Fashion Merchandising Seminar <sup>2</sup>	. 1
FMDSE	150	Principles of Retail Merchandising.	. 5
FMDSE	180	Retail Sales Techniques	. 3
FMDSE	267	Cooperative Education Work Experience <sup>2</sup>	. 1
MMG1	182	Total	.⊥ 16
Third O			10
RT	109	Business Communications1	2
BT	272	Business Correspondence	. 5
FMDSF	113	Fashion Merchandising Seminar <sup>2</sup>	. 5
FMDSE	267	Cooperative Education Work Experience <sup>2</sup>	· 1
IS	120	Business Computer Use	. 3
MMGT	183	Leadership Training-DEC	. 1
		Electives Group A, B, or C.	. 2
		Total	16
Fourth	Quar	ter	
FMDSE	224	Principles of Retail Promotion <sup>3</sup>	. 5
MMGT	211	Marketing	. 5
		Electives Group A, B, or C.	. 5
		Group C - Computer Software Electives	. 1
		lotal	16
FITTE QU	Jarte		_
ACCT&	201	Prin of Accounting I	. 5
BUS ECONP	280	Human Kelations in Business <sup>4</sup>	. 5 E
ECON	202	Total	. ) 16
Sixth A	uarte		
FMDSE	210	Merchandising Management	5
TWIDDL	210	Electives Group A. B. or C	. 3 12
		Total.	17
96 cred	its ar	re required for the AAS.	
CEDTIE			
CERTIFI	CATE		
First Qu	Jarte		~
BI	107	Business Communications <sup>1</sup>	. 3
DUS EMDSE	103	Dasic business Math and Electronic Calculators <sup>5</sup>	. ) 5
IS	120	Business Computer Use	. J 3
10	120	Total	. J
Second	Oua	rter	
ACCT&	201	Prin of Accounting I	. 5
BT	108	Business Communications <sup>1</sup>	. 3
CMST&	101	Introduction to Communication	. 5
MMGT	231	Human Resource Management	. 5
		Total	18
Third Q	uart	er	
BUS	280	Human Relations in Business	. 5
MMGT	101	Principles of Management	. 5
MMGT	211	Marketing	. 5
		Total	15

## 49 credits are required for the Certificate.

## **GROUP A - BUSINESS ELECTIVES**

202	Prin of Accounting II	5
101	Keyboarding	5
100	Money Management	3
201	Business Law	5
217	Business Statistics	5
	202 101 100 201 217	<ul> <li>202 Prin of Accounting II</li> <li>101 Keyboarding</li> <li>100 Money Management</li> <li>201 Business Law</li> <li>217 Business Statistics</li> </ul>

BUS	280	Human Relations in Business 5
ECON&	201	Micro Economics
MMGT	231	Human Resource Management
MMGT	270	Conference Preparation Techniques 1-5
SBM	101	How to Start a Small Business
GROUP	B - EL	ECTIVES
ART	105	Color and Design
FMDSE	161	Merchandise Trends
INTDS	170	Elements of Interior Design
INTDS	179	History of Interiors I
INTDS	180	History of Interiors II
GROUP	c - co	OMPUTER SOFTWARE ELECTIVES
CAPPS	102	Introduction to Office
CAPPS	110	Word 1-8
CAPPS	112	Excel 1-8
CAPPS	114	Access 1-8
<sup>1</sup> May su credits	ıbstitu requir	te ENGL& 101. If ENGL& 101 is substituted then the total ed for the certificate are 48.
<sup>2</sup> Three c	redits	of work experience are required. Must be taken concurrently
with se	minar	
<sup>3</sup> FMDS	E 224	may be substituted with MMGT 218.
4 BUS 28	30 mai	y be substituted with MMGT 231.

- <sup>5</sup> May substitute MATH 091 or above.
- <sup>6</sup> Select from listed electives or other business courses as approved by the management adviser.
- 7 Select from listed electives or other art courses as approved by the management adviser.

## SMALL BUSINESS MANAGEMENT

## AAS: SFCC

The objectives of this program are to educate students in the techniques and principles of owning, operating and managing a small business, and to make current small business owners more effective and efficient in their operations. This program provides support courses for other vocational programs by concentrating on specific small business knowledge and skills.

Keyboarding proficiency of 35 wpm is expected.

## AAS

## First Quarter

ACCT	141	QuickBooks 1-5
ACCT&	201	Prin of Accounting I
BT	107	Business Communications <sup>1</sup>
BUS&	101	Intro to Business
MMGT	111	Mid-Management Seminar1
		Computer Elective (Information Systems) 1
		Total
Second	Qua	rter
BT	108	Business Communications <sup>1</sup>
BUS	105	Principles of Leadership <sup>2</sup>
BUS	280	Human Relations in Business 5
CRMGT	140	Financial Statement Analysis 3
MMGT	112	Mid-Management Seminar1
		Total
Third Q	uart	er
BUS	103	Basic Business Math and Electronic Calculators 5
BUS	108	eBusiness
MMGT	211	Marketing
		Computer Elective (Information Systems)1
		Total
Fourth	Quar	ter
BT	272	Business Correspondence
BUS&	201	Business Law
FMDSE	224	Principles of Retail Promotion
		Total
Fifth Ou	uarte	r
ACCT	121	Pavroll Procedures
ECON	100	Fundamentals of Economics <sup>3</sup>

# Program outlines

## **Sixth Quarter**

	Total	15	5
	Computer Elective (Information Systems)	1	1
MMGT 101	Principles of Management	5	5
CRMGT 110	Introduction to Finance	3	3
CMST& 101	Introduction to Communication	5	5
ACCT 122	Business Tax Accounting	1	1
•			

## 89-93 credits are required for the AAS.

- <sup>1</sup> *May substitute ENGL& 101 for BT 107 and 108.*
- <sup>2</sup> May substitute MMGT 181, 182, 183 for BUS 105.
- <sup>3</sup> May substitute ECON& 202 for ECON 100.

## **SOCIAL SERVICES**

## AAS: SFCC

The Social Service program is designed for those who plan to seek employment in social services upon completion of the two-year program, or who wish to transfer to a four-year institution and complete a bachelor's degree.

The Social Service program leads to: an associate in applied science (AAS) degree that is for those who wish to transfer to a four-year college or seek employment in social services upon completion of the two-year program.

Those who have completed the AAS program will have acquired the necessary skills to work in various public and private social services programs. This degree also can serve as a transfer degree to four-year colleges. See program adviser for more information.

## AAS

## **First Quarter**

HS HS HSSUB	102 136 131	Introduction to Human Services.       5         Improving Interpersonal Communication.       5         Survey of Chemical Dependency.       3
		Iranster Irack Electives <sup>1</sup> 5     Total   18
Second	Oua	rter
HS	105	Child Abuse
HSGER	101	Introduction to Social Gerontology
HSGER	250	Death, Loss and Grief 5
		Total
Third Q	uarte	er
ENGL&	101	English Composition I
HS HSCEP	115	Social Policy <sup>2</sup>
TIJGEK	115	Total
Fourth	Quar	tor
BUS	103	Basic Business Math and Electronic Calculators
HS	281	Practicum I
		Transfer Track Electives <sup>1</sup>
		Total
Fifth Qu	ıarte	r
HS	282	Practicum II <sup>5</sup> 5
HSGER	210	Aging and Mental Health65Transfer Track Electives15
		Total
Sixth Q	uarte	er
HS	283	Practicum III <sup>6</sup>
		Total
93 cred	its ar	e required for the AAS.
<sup>1</sup> Select t courses	ransfe 5 appr	r track electives from AA degree requirements or human services oved by the program adviser.

<sup>2</sup> HS 115 may be substituted with HS 221 or HSSOC 115.

<sup>3</sup> HSGER 115 may be substituted with HSGER 201.

<sup>4</sup> BUS 103 may be substituted with any math course approved by the program adviser.

<sup>5</sup> HS 282 may be substituted with electives approved by the program adviser.
<sup>6</sup> May be substituted with human services electives.

## **SOCIOLOGY PRE-MAJOR**

## AA-DTA: SCC, SFCC

Sociology is defined as the study of the history, development, organization and problems of people living together as social groups. The sociologist strives to gain understanding of people through the scientific study of human relationships.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## AA-DTA

## See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup> 9	0
Total9	0

## 90 credits are required for the AA-DTA.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## SOFTWARE DEVELOPMENT

## AAS, Certificate: SCC

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions. Students must maintain a grade of 2.0 in each class.

## AAS

## Prerequisites

CIS 110 Introduction to Computer Applications<sup>1</sup>

## **First Quarter** CIS 111 XHTML Basics ...... 5 Graphic Design for the Web ..... 5 CIS 112 CIS 146 Introduction to Programming......5 ENGL& 101 English Composition I<sup>2</sup> ..... 5 Second Quarter CIS 126 DBMS/SQL...... 5 CIS 130 CIS 282 **Third Quarter** CIS 114 JavaScript ...... 5 CIS 283 MATH& 107 **Fourth Quarter** CATT 241 Microsoft Project ......2.5 CIS 256 .Net Application Development......5 CIS 284 MMGT 242 **Fifth Quarter** CIS CIS CIS 272 Agile Software Development ...... 5 **Sixth Quarter** BΤ CIS 276 CMST& 210 Interpersonal Communication<sup>2</sup> ..... 5

93 credits are required for the AAS.

## CERTIFICATE

## .NET DEVELOPER CERTIFICATE

		Total	5
CIS	258	ASP.NET	5
CIS	256	.Net Application Development	5
CIS	126	DBMS/SQL	5

## 15 credits are required for the Certificate.

## COMPUTER SCIENCE CERTIFICATE

CIS	146	Introduction to Programming	5
CIS	282	Programming Principles I	5
CIS	283	Programming Principles II	5
		Total1	5

## 15 credits are required for the Certificate.

## WEB DESIGN CERTIFICATE

		Total
CIS	130	Website Design
CIS	112	Graphic Design for the Web 5
CIS	111	XHTML Basics 5

15 credits are required for the Certificate.

## WEB DEVELOPER CERTIFICATE

CIS	114	JavaScript
CIS	258	ASP.NET
CIS	272	Agile Software Development 5
CIS	284	Ruby on Rails
		Total

## 20 credits are required for the Certificate.

<sup>1</sup> Or permission of instructor.

<sup>2</sup> This related education course may be substituted with any course or combination of courses approved by the instructional dean.

## SURGICAL TECHNOLOGY

## AAS: SCC

The Surgical Technology program prepares students to function in cooperation with the surgeon and nurses in the operating room performing duties that are vital for the safety and care of surgical patients. Students must have knowledge and skills in surgical aseptic techniques for preparation and use of materials during a surgical procedure. Students also must be able to relate to patients and other people in the field. Using reasonable judgment when working in emergency surgical situations is required.

At the completion of the program, students will be able to accept the responsibility expected of the surgical technologist as a beginning staff employee in the operating room. Prior to graduation, students will sit for the National Certifying Examination for Surgical Technologists for qualification as a certified surgical technologist (CST).

The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the National Board of Surgical Technology and Surgical Assisting (www.nbstsa.org). The National Board of Surgical Technology and Surgical Assisting (NBSTSA) 6 West Dry Creek Circle, Ste. 100 Littleton, CO 80120 Toll Free: 1-800-707-0057 FAX: 303-325-2536. Commission on Accreditation of Allied Health Education Programs (CAAHEP) 1361 Park Street Clearwater, Florida 33756 (707) 210-2350 www.caahep.org

Admission Requirements:

- High school diploma or GED certificate
- Appropriate scores in one of the following: ASSET or COMPASS
- Computer skills required
- Active e-mail account required
- Prerequisites: BIOL 160, MATH 092, CIS 110

Each required course for graduation must be completed with a grade of 2.0 or better before proceeding to the next quarter.

A student may repeat a surgical technology class only once, and it must be repeated within two years.

The Surgical Technology program must be completed within a three-year period.

The Surgical Technology program is a fall start program. Students are accepted from a wait list.

Students can enter into the third or fourth quarter only if they qualify for advanced standing and space is available. Students requesting placement into the program in the second year must pass a comprehensive test for each class or take SURG 202, 203 and 206 even if they had previously passed the courses.

## AAS

## Prerequisites

BIOL& 160 General Biology w/Lab

- CIS 110 Introduction to Computer Applications
- MATH 092 Elementary Algebra II<sup>1</sup>

## First Quarter

-			
BIOL&	241	Human A & P 1	5
CMST&	210	Interpersonal Communication	5
SURG	100	Introduction to Surgical Technology.	2
SURG	105	Blood-borne Pathogens and HIV/AIDS	1
SURG	125	Medical Terminology	5
		Total 1	8
Second	Quar	rter	
BIOL&	242	Human A & P 2	5
ENGL&	101	English Composition I	5

		Total
SURG	120	Disease Transmission and Control
SURG	107	Surgical Environment 3
ENGL&	101	English Composition I 5
DIOL&	242	Human A & P 2

## **Third Quarter**

	-		
HED	109	Human Physiology and Disease	5
MATH	100	Vocational Technical Mathematics	3
SURG	101	Surgical Procedures	5
SURG	104	Central Service Clinical	1
SURG	111	Technical Skills I	1
		Total	3
Fourth	Quar	ter	
SURG	202	Surgical Procedures	6
SURG	212	Technical Skills II	1
	0 - 4		_

SURG	202	Surgical Procedures	. 6
SURG	212	Technical Skills II	. 4
SURG	254	Operating Room Practicum	. 2
		Total	12
Fifth Q	uarte	r	
SURG	203	Surgical Procedures	. 4

## SURG 203 Surgical Procedures 4 SURG 206 Perioperative Care of the Patient 4 SURG 255 Operating Room Practicum 5 Total 13 Sixth Quarter 3 SURG 250 Surgical Seminar 3 SURG 256 Operating Room Practicum 10 Total 13 13

## 90 credits are required for the AAS.

<sup>1</sup> MATH 092 may be substituted with MATH 096.

## **TELECOMMUNICATIONS OFFICER**

## **Certificate: SCC**

The Telecommunications Officer Certificate program consists of training suitable for students in Criminal Justice, Fire Science, and other departments involved in emergency calls for services. The program prepares students to receive, relay, and dispatch emergency calls; provide assistance to the public via telephone or in person; and operate a variety of communications equipment. The maintenance of accurate and precise recordkeeping is also stressed throughout the program.

In order to enter the program, students must prove keyboarding proficiency at 35 wpm and pass a multi-task evaluation test which will include testing the applicant's ability to manage stressful situations that may occur on-the-job. For further information, contact a program instructor or a counselor.

# Program outlines

## CERTIFICATE

## **First Quarter**

Second Quarter							
		Total					
ENGL&	101	English Composition I					
CMST&	210	Interpersonal Communication 5					
CJ	209	Human Relations					
CIS	110	Introduction to Computer Applications5					

## CATT 122 Microsoft Access I 2.5 CATT 123 Microsoft Access II 2.5 CJ 150 Criminal Justice Report Writing 5 CJ 212 Professional Development 1 CJ 266 Cooperative Education Seminar<sup>1</sup> 1 CJ 267 Cooperative Education Work Experience<sup>1</sup> 6 Total 18

## 36 credits are required for the Certificate.

<sup>1</sup> CJ 266 and 267 may be substituted with CJ 288.

## TRANSPORTATION AND LOGISTICS MANAGEMENT

## **AAS, Certificate: SFCC**

**AAS Degree:** The primary goal of this degree is to provide students with the knowledge and skills of general business management subjects plus specific knowledge of information critical to success in the field of logistics and transportation. Students will acquire skills and knowledge that will make them likely candidates for entry level job openings in the fields of business management, logistics, transportation, warehousing, purchasing supply-chain management, and operations.

**Certificate (18 credits):** The primary goal of this certificate is to provide a program which gives students knowledge critical to success in the field of logistics and transportation. This certificate is designed for incumbent workers in the transportation or related industry.

Keyboarding proficiency of 35 wpm is expected.

## AAS

## **First Quarter**

ACCT& BT BLIS&	201 107 101	Prin of Accounting I
MMGT	111	Mid-Management Seminar
		Computer Elective
		Total
Second	Qua	rter
BT	108	Business Communications <sup>1</sup>
BUS	105	Principles of Leadership <sup>2</sup> 3
BUS	280	Human Relations in Business 5
CRMGT	110	Introduction to Finance
MMGT	112	Mid-Management Seminar 1
		Total
Third Q	uarte	er
BUS	103	Basic Business Math and Electronic Calculators 5
BUS	108	eBusiness 2
MMGT	211	Marketing 5
		Computer Elective 2
		Total
Fourth	Quar	ter
BT	272	Business Correspondence 5
CMST&	101	Introduction to Communication
MMGT	223	Customer Service 3
MMGT	251	Transportation Systems 3
		Total
Fifth Qu	ıarte	r
ECON&	202	Macro Economics <sup>3</sup>
MMGT	101	Principles of Management 5
MMGT	252	Principles of Purchasing 3
MMGT	253	Inventory Management

## Sixth Quarter

BUS&	201	Business Law	
CRMGT	140	Financial Statement Analysis	
MMGT	254	Logistics and Supply Chain Management	
MMGT	255	Warehouse and Distribution Management	
		Total	

## 90 credits are required for the AAS.

## CERTIFICATE

## First Quarter

MMGT	223	Customer Service
MMGT	251	Transportation Systems
MMGT	252	Principles of Purchasing
MMGT	253	Inventory Management
MMGT	254	Logistics and Supply Chain Management
MMGT	255	Warehouse and Distribution Management
		Total

## 18 credits are required for the Certificate.

- <sup>1</sup> BT 107 and 108 may be substituted with ENGL& 101 plus one credit elective.
- <sup>2</sup> BUS 105 may be substituted with MMGT 181, 182, 183.
- <sup>3</sup> ECON& 202 may be substituted with ECON 100.

## **VASCULAR TECHNOLOGY**

## AAS: SCC

Vascular Technology is an Allied Health profession in which practitioners perform diagnostic and monitoring procedures using sound waves. The vascular sonographer performs examinations at the request or direction of a physician. Through subjective sampling and/or recording, the vascular sonographer proceeds with the examination to create an easily definable foundation of data from which a correct anatomic and physiologic diagnosis may be established for each patient.

The various types of ultrasound imaging equipment require a highly skilled sonographer to obtain the imaging information or other data required. The vascular sonographer must obtain appropriate history, physical findings, and pertinent laboratory data to adapt the imaging techniques to obtain comprehensive and diagnostic information.

Students may change programs one time within related imaging programs with permission of the faculty.

Admission Recommendations/Requirements:

- Active email account recommended
- Computer skills recommended
- CHEM 120; CHEM& 121; HED 125; PHYS 100; PHYS 120 recommended
- Appropriate scores in ASSET or COMPASS required
- Physical examination, immunizations, and drug screening and Washington State Patrol (WSP) background check are required after being accepted into the program.
- A 2.0 grade must be maintained quarterly in every course before proceeding to the next quarter.
- Students may repeat a professional course once, but it must be repeated within two years.
- High school diploma or GED certificate required
- Interview with vascular technology instructor required
- Program Prerequisites:
- All math and science prerequisites must have been completed within the last five years with a grade of 2.0 or better.

## AAS

Prerequisites										
BIOL&	160	General Biology w/Lab								
BIOL&	241	Human A & P 1								
BIOL&	242	Human A & P 2								
CMST	127	Leadership Development								
ENGL&	101	English Composition I								
MATH	099	Intermediate Algebra								

## 139

First Q	luarte	if the second	
NCT	113	Electrophysiology	4
NCT	116	Acute Coronary Syndrome	1
NCT	117	Cardiovascular Pharm 1	1
VASC	100	Introduction to Echo and Vascular	2
VASC	112	Vascular Fundamentals	4
VASC	125	Ultrasound Physics and Instrumentation I	5
-		Total	. 17
Secon	d Qua	rter	
NCT	123	History and Physical	3
VASC	122	Vascular Procedures I	4
VASC	123	Hemodynamics	2
VASC	120	Intracound Physics and Instrumentation II	1
VASC	133	Total	
Third (	Quart	Ar	
VASC	131	Core Concepts in Vasc	2
VASC	132	Vascular Procedures II	5
VASC	133	ECHO Fundamentals	5
VASC	138	Cardiovascular Physiology	4
		Total.	. 16
Fourth	Qua	rter	
VASC	139	Surgical Asepsis	1
VASC	140	Technical Skills/Surgical Asepsis	1
VASC	141	Data Collection and Presentation	3
VASC	142	Survey of Diagnostic Medical Sonography	3
VASC	143	Vascular Screening Simulation	4
VASC	144	Vascular Screening Seminar	2
		lotal	. 14
	luarte		4
VASC	251	Vascular Technical Skills.	4
VASC	252	Vaccular Clinical I	· · · /
VASC	255	Vascular Clinical Preparation	· · · ∠ 2
VAJC	204	Total	··· 2
Sixth (	Quart	Pr 101411	
VASC	262	Vascular Clinical II	14
VIIDC	202	Total.	. 14
Sevent	th Qu	arter	
VASC	272	Vascular Clinical III	14
		Total	. 14
105 cre	edits a	are required for the AAS.	

## **VETERINARY MEDICINE PRE-MAJOR**

AA-DTA, Associate in Biology DTA/MRP: SCC, SFCC

Humans use animals for food, work, and pleasure. The work of the veterinarian in preventing, curing, alleviating and eradicating disease is therefore very important to humans. Veterinary medicine offers many different career opportunities.

Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## **AA-DTA**

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

Suggested Courses to Consider <sup>1</sup>	
Total	

90 credits are required for the AA-DTA.

## ASSOCIATE IN BIOLOGY DTA/MRP

See transfer degree requirements in the Transfer Program Outlines section of this catalog.

buggesteu	CO	uis	sca	, .,	0		1.5	iu	CI	•	•	• •	•	•	•	• •	•	•	•	•	•	•	• •	•	
Total																									an

## Total..... 90 credits are required for the Associate in Biology DTA/MRP.

<sup>1</sup> Consult a counselor or academic adviser for recommended courses specific to student's choice of transfer institution.

## VISION CARE: Vision Care Technology and Vision Care Specialist

## AAS, Certificate: SCC

A career in vision care offers a variety of job opportunities within the health care field. The one-year certificate program provides graduates with the skills necessary to assist practitioners of optometry, ophthalmology and opticianry to provide a full scope of vision care. The aging population needs have stimulated technical advancements in ophthalmic lens materials, new contact lens design and increased medical/surgical treatment procedures. This factor provides a special opportunity for those individuals who enjoy the challenge of keeping abreast of change.

Students may earn a Vision Care Specialist Certificate by taking the three-quarter professional vision care curriculum. Graduates are prepared to sit for the nationally recognized Assistants Registry Exam (AOA). Those students wishing to pursue a Vision Care Technology AAS degree may take the additional three quarters of liberal arts curriculum. Each required course for the degree and/or the certificate must be completed with a 2.0 grade or better before proceeding to the next quarter.

Admission Requirements:

- High school diploma or GED certificate
- Appropriate ASSET or COMPASS scores
- Computer skills recommended
- Active email account recommended
- Students may repeat a vision technology course once, but it must be repeated within two years.

		Electives <sup>1</sup>	8
		Second Year Business Elective <sup>3</sup>	5
		Second Year Humanities Elective <sup>3</sup>	5
		Second Year Required Courses <sup>3</sup>	17
		Second Year Science Elective <sup>3</sup>	5
		Total	
First Qu	ıarte	r	
ENGL&	101	English Composition I <sup>2</sup>	5
VCT	110	Ophthalmic Optics	5
VCT	111	Ocular Anatomy and Physiology	5
VCT	112	Introduction to Pretesting	4
VCT	130	Mechanical Optics	
VCI	100	Total	
Second	<b>0</b>		
Second	Qua	rter	_
VCT	123	Ophthalmic Dispensing	5
VCT	124	Ocular Pharmacology	2
VCT	125	Advanced Pretesting	6
VCT	126	Contact Lenses.	5
		Total	18
Third Q	uart	er	
VCT	137	Vision Care Specialties	2
VCT	138	Vision Care Practicum	6
VCT	120	Onbthalmic Business Management	4

## r

	Total	8	
Third	Quart	er	
VCT	137	Vision Care Specialties	2
VCT	138	Vision Care Practicum	6
VCT	139	Ophthalmic Business Management	4
		Total	12

92 credits are required for the AAS.

## CERTIFICATE

## **First Quarter**

ENGL&	101	English Composition I <sup>2</sup> 5
VCT	110	Ophthalmic Optics
VCT	111	Ocular Anatomy and Physiology5
VCT	112	Introduction to Pretesting 4
VCT	130	Mechanical Optics 3
		Total

## Second Quarter

VCT	123	Ophthalmic Dispensing	5
VCT	124	Ocular Pharmacology	2
VCT	125	Advanced Pretesting	6
VCT	126	Contact Lenses	5
		Total	8

PROGRAM OUTLINES

## **Third Quarter**

VCT	137	Vision Care Specialties 2	
VCT	138	Vision Care Practicum 6	
VCT	139	Ophthalmic Business Management 4	
		Total	

## 52 credits are required for the Certificate.

## SECOND YEAR BUSINESS ELECTIVE

ACCT	151	College Accounting I
ACCT&	201	Prin of Accounting I 5
MMGT	205	Small Business Planning 5

## SECOND YEAR HUMANITIES ELECTIVE

CMST	227	Intercultural Communication	5
PHIL&	101	Intro to Philosophy	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

## SECOND YEAR REQUIRED COURSES

CIS	110	Introduction to Computer Applications	5
CMST&	210	Interpersonal Communication	5
ISFTY	111	Industrial First Aid	2
MATH	099	Intermediate Algebra	5

## SECOND YEAR SCIENCE ELECTIVE

BIOL& 160	General Biology w/Lab	5
CHEM& 110	Chemical Concepts w/Lab	5
CHEM& 121	Intro to Chemistry: w/Lab	5
PHYS 101	General Physics	5
PHYS 120	Fundamentals of Medical Physics	5

<sup>1</sup> Students may choose 8 credits of electives numbered 100 or above.

 $^{2}\,$  ENGL& 101 may be substituted with ENGL 120.

<sup>3</sup> These courses may be substituted by any course or combination of courses approved by the instructional dean.

## WATER RESOURCES TECHNOLOGY

## AAS: SCC

The Water Resources Technology program is designed to prepare students for positions in hydrology and water quality for local, state and federal agencies, and private industry.

## AAS

## **First Quarter**

AGGEN NATRS WATER WATER WATER	151 112 109 120 128	Shop Skills       4         Natural Resources Mathematical Applications <sup>1</sup> 5         Introduction to Water Resources       5         Hydrologic Technical and Field Reports <sup>1</sup> 5         Occumational Preparation and Experience <sup>1</sup> 1
, , , , , , , , , , , , , , , , , , ,	120	Total
Second	Qua	rter
NATRS NATRS	122 220	Natural Resources Trigonometric Applications <sup>1</sup> 5 Introduction to Geographic Information Systems for Natural Resources <sup>2</sup>
WATER	129	Occupational Preparation and Experience
WATER	132	Hydrologic Field Projects <sup>3</sup> 2
WATER	208	Water Data and Records Analysis
		Total
Third Q	uarte	24
NATRS WATER WATER WATER	204 133 205 210	Maps and Aerial Photo Interpretation5Hydrologic Field Projects <sup>3</sup> 2Surveying <sup>4</sup> 5Hydrologic Measurement5
		Total
Fourth	Quar	ter
NATRS	217	Freshwater Fisheries Biology 5
WATER	110	Hydrogeology
WATER	212	Water Rights and Laws
WATER	214	Advanced Hydrologic Records
WATER	228	Occupational Preparation and Experience

WATER 231 Hydrologic Field Projects<sup>3</sup>...... 2

## Fifth Quarter

NATRS	230	Global Positioning Systems
NATER	111	Groundwater Systems
NATER	209	Water Quality
NATER	218	Hazardous Materials
NATER	229	Occupational Preparation and Experience
NATER	232	Hydrologic Field Projects <sup>3</sup> 1
		Total
Sixth Q	uarte	er
ENVS	211	Weather and Climate
NATRS	221	Applications in Geographic Information Systems 5
NATER	213	Advanced Water Quality
NATER	216	Watershed Restoration
NATER	233	Hydrologic Field Projects <sup>3</sup>
		Total 22

## 119 credits are required for the AAS.

- <sup>1</sup> These related education requirements may be met by any course or combination of courses approved by the instructional dean.
- <sup>2</sup> Students must pass a competency test.

<sup>3</sup> Water 131 may be taken in the first quarter. Students are required to complete a minimum of five of the six field projects: WATER 131,132,133,231,232,233.

<sup>4</sup> May be substituted with NATRS 205.

## **WEB DESIGN**

## AAS: SFCC

The Web Design program is a two-year course based upon the Graphic Design program. Students study the fundamentals of design, drawing, typography, color and form, problem solving, critical thinking and 3D and 2D animation. The use of computers and their operating systems is emphasized. Competency is achieved on the predominant graphics programs.

Specific to the Internet, students design interfaces and structure information to create Web pages and sites. Graphics imagery and animations tailored to the Web will be constructed, paying close attention to file formats, color control and compression techniques. Web pages will be programmed using HTML (hypertext markup language). An introduction to several programming languages designed for the Internet aid in designing functions and interactivity in Web sites.

## AAS

## **First Quarter**

GRDSN 101	Design Process I	3
GRDSN 102	Design Technology I	3
GRDSN 103	Design Projects I	L
GRDSN 105	Drawing for Graphic Designers 2	)
GRDSN 109	History of Design 4	ŀ
GRDSN 156	Illustrator I	)
GRDSN 172	Dreamweaver 2	)
	Total	ļ
Second Qua	nter	
ART 105	Color and Design	;
GRDSN 111	Design Process II	3
GRDSN 112	Design Technology II	3
GRDSN 113	Design Projects II	l
GRDSN 115	Drawing for Communication 2	)
GRDSN 158	PhotoShop I 2	)
GRDSN 163	InDesign I 2	2
	Total	3
<b>Third Quart</b>	er	
BUS 102	Math Skills for Business 3	3
ENGL 105	Pro/Tech: Basic Writing 5	;
GRDSN 121	Design Process III	3
GRDSN 122	Design Technology III 3	3
GRDSN 123	Design Projects III 1	l
GRDSN 125	Computer Drawing 2	,
	Total	ļ

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Fourth Quar	ter
GENST 109	Applied Critical Thinking
GRDSN 126	Web Production
GRDSN 171	Flash
GRDSN 174	Dreamweaver II
GRDSN 238	3-D Modeling and Animation I 3
IS 210	Internet Programming I 5
	Total
Fifth Quarte	r
GRDSN 215	Web Process V
GRDSN 216	Web Technology V 3
GRDSN 217	Web Projects V 1
GRDSN 218	Web Lab V 2
GRDSN 235	Multimedia Technology I 3
IS 212	Internet Programming II
	Total
Sixth Quarte	24
GRDSN 225	Web Process VI
GRDSN 226	Web Projects VI
GRDSN 227	Web Lab VI
GRDSN 266	Cooperative Education Seminar
GRDSN 267	Cooperative Education Work Experience
HS 136	Improving Interpersonal Communication5
	Total 16-18

102-104 credits are required for the AAS.

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PROGRAM OUTLINES

## WELDING AND FABRICATION

## **Certificate: SCC**

Welding is one of the most common and dependable methods of joining materials together. Fabrication is the process of blueprint reading, layout, cutting and preparing materials for assembly.

The competency-based Welding and Fabrication program trains the student in the safe and correct procedures used in shielded metal-arc welding, oxy-acetylene welding, MIG and TIG welding, and air arc and plasma cutting. Course content also includes the safe use and care of hand and power equipment found in welding and fabrication shops. Some of the equipment includes overhead cranes, grinders, power saws, ironworker, cold saws and drill presses.

The student will be prepared for entry into many trade and industry opportunities, including construction, aerospace, automotive, heavy equipment, machinist, ship building and agriculture. This is only a small cross-section of job opportunities available to the student who successfully completes the program.

## CERTIFICATE

## **First Quarter**

11136 4		•
APLED	121	Applied Written Communication <sup>1</sup>
WELD	113	Welding Math 2
WELD	114	Introduction to Blueprint Reading 3
WELD	115	Introduction to Fabrication
WELD	116	Shielded Metal Arc Welding Theory2
WELD	117	Shielded Metal Arc Welding Applications 7
		Total
Second	Qua	rter
APLED	125	Employment Preparation <sup>1</sup>
WELD	123	Intermediate Blueprint Reading 2
WELD	124	Advanced Shielded Metal Arc Welding Theory2
WELD	125	Advanced Shielded Metal Arc Welding Applications 6
WELD	126	Intermediate Fabrication
		Total
Third Q	uart	er
ISFTY	111	Industrial First Aid
WELD	133	Advanced Blueprint Reading 2
WELD	134	Specialty Welding Theory 4
WELD	135	Specialty Welding Applications
WELD	136	Advanced Fabrication

## 56 credits are required for the Certificate.

<sup>1</sup> This related education requirement may be met by any course or combination of courses approved by the instructional dean.

## **Program/Course Abbreviations**

ABF	AUTOMOTIVE COLLISION AND REFINISHING TECHNICIAN	HEO	DIESEL/HEAVY DUTY EOUIPMENT
ACCT	ACCOUNTING	ніс	HEARING INSTRUMENT SPECIALIST
ACCEN		шст	
AGUEN			
AGHKI		HII	
AIRC	HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION	HLTH	HEALTH
AIRSC	AVIATION/AIRWAY SCIENCE	HM	HOTEL AND RESTAURANT MANAGEMENT
ANTH	ANTHROPOLOGY	HRC	HEALTH RECORD CLERK
APLED	APPLIED EDUCATION	HS	HUMAN SERVICES
AQUAT	AQUATICS	HSEAR	INTERPRETER TRAINING PROGRAM/DEAFNESS
ARCFT	AVIATION MAINTENANCE TECHNOLOGY	HSGER	GERONTOLOGY PARAPROFESSIONAL
ARCHT	ARCHITECTURAL TECHNOLOGY	HSSOC	SOCIAL SERVICES
ART	ART	HSSUB	CHEMICAL DEPENDENCY PROFESSIONAL STUDIES
ASI	AMERICAN SIGN LANGUAGE	нис	
ASTR		ним	HIMANITIES
		IDE	
AUDIO		IBE	
AUIMI		ІСТ	INVASIVE CARDIOVASCULAR TECHNOLOGY
AUTO	AUTOMOTIVE TECHNOLOGY	INTDS	INTERIOR DESIGN
BAK	BAKING: PROFESSIONAL PASTRIES AND SPECIALTY CAKES	IS	COMPUTING-INFORMATION SYSTEMS
BANK	FINANCIAL SERVICES/TELLER	ISFTY	INDUSTRIAL FIRST AID
BIOEQ	BIOMEDICAL EQUIPMENT TECHNICIAN	ITP	INTERPRETER TRAINING PROGRAM
BIOL	BIOLOGY	JAPN	JAPANESE
BIOTC	BIOTECHNOLOGY	JOURN	JOURNALISM
вот	BOTANY	LA	PARALEGAL
BT	BUSINESS TECHNOLOGY	LIFE	EMERGENCY MEDICAL TECHNICIAN (PARAMEDIC)
BUS	BUSINESS		
CAD			
CADDC		LSEC	
CAPPS		MA	MEDICAL ASSISTANT
CARP		MACH	MACHINIST/CNC TECHNOLOGY
CATT	COMPUTER APPLICATION TECHNOLOGY TRAINING	MASS	MASSAGETHERAPY
CET	CIVIL ENGINEERING TECHNOLOGY	MATH	MATHEMATICS
CHEM	CHEMISTRY	MET	MECHANICAL ENGINEERING TECHNOLOGY
CHIN	CHINESE	MILSC	MILITARY SCIENCE
CIS	COMPUTER INFORMATION SYSTEMS	MMGT	MANAGEMENT
CJ	CRIMINAL JUSTICE	MSEC	MEDICAL OFFICE SPECIALIST
CMST	COMMUNICATION STUDIES	MUSC	MUSIC
COOP	COOPERATIVE EDUCATION	NATRS	NATURAL RESOURCE MANAGEMENT
COS	COSMETOLOGY	NCT	
CRMCT		NUDC	
C		NUITDI	
CS CIT		NUTRI	
CUL		OCEA	
DENI	DENTAL ASSISTING	OR-PR	ORTHOTIC-PROSTHETIC TECHNICIAN
DRMA	DRAMA	PALEO	PALEONTOLOGY
ECED	EARLY CHILDHOOD EDUCATION	PE	PHYSICAL EDUCATION
ECHO	ECHOCARDIOGRAPHY	PHARM	PHARMACYTECHNICIAN
ECON	ECONOMICS	PHIL	PHILOSOPHY
EDUC	EDUCATION/EDUCATION PARAPROFESSIONAL, SPECIAL EDUCATION	ΡΗΟΤΟ	PHOTOGRAPHY
ELECT	ELECTRONICS ENGINEERING TECHNICIAN	PHYS	PHYSICS
ELMT	ELECTRICAL MAINTENANCE AND AUTOMATION	POLS	POLITICAL SCIENCE
ENGL	ENGLISH	PSYC	PSYCHOLOGY
ENGR	ENGINEERING	PTA	PHYSICAL THERAPIST ASSISTANT
FNVS	ENVIRONMENTAL SCIENCES	RAD	
FIDT		DT	
FINIDSE		KU55	RUSSIAN
FINIT	HEALTH/FITNESS TECHNICIAN	SAL	SALISH
FOD	FIRE OFFICER	SBM	SMALL BUSINESS MANAGEMENT
FRCH	FRENCH	SOC	SOCIOLOGY
FS	FIRE SCIENCE TECHNOLOGY	SONO	DIAGNOSTIC MEDICAL SONOGRAPHY
FSCI	FUNDAMENTALS OF SCIENCE	SPAN	SPANISH
GENST	GENERAL STUDIES	SURG	SURGICAL TECHNOLOGY
GEOG	GEOGRAPHY	VASC	VASCULAR TECHNOLOGY
GEOL	GEOLOGY	VCT	VISION CARE
GERM	GERMAN	WATER	WATER RESOURCES TECHNOLOGY
GOVT	GOVERNMENT. STUDENT	WFID	WEI DING AND FABRICATION
GRDSN	GRAPHIC DESIGN	WS	WOMENS STUDIES
		7001	
	UUIDANCE	LUUL	

HED

HEALTH EDUCATION

## **Course Descriptions**

## ACCOUNTING

## ACCT 103 – Fundamental Bookkeeping Procedures (3 cr)

This course is an introduction to fundamental bookkeeping for a sole proprietorship. It focuses on learning how and when to record transactions and how and when to prepare financial statements. (SFCC)

## ACCT 112 - Excel for Accounting (3 cr)

This course utilizes Excel to solve accounting problems and aid decision making. Areas covered include projection, cash flows, debt management, planning/budgeting and graphical presentation of accounting data. Prerequisite: ACCT 103, 104, CAPPS 112 or permission of instructor. (SFCC)

## ACCT 114 – Access for Accounting (2 cr)

This course develops an understanding of the theory and practice of relational database management systems in accounting settings. The course enables students to build accounting system elements for three main accounting transaction cycles: The revenue cycle, the purchase cycle and the payroll cycle. Prerequisite: ACCT 103, CAPPS 114 or permission of instructor. (SFCC)

## ACCT 121 – Payroll Procedures (3 cr)

This course enables students to properly prepare, file and report quarterly payroll taxes; to prepare all necessary journal entries for payroll expenses; and to prepare all necessary end-of-year reports for payroll. Prerequisite: ACCT 103, 115 or permission of instructor. (SFCC)

## ACCT 122 – Business Tax Accounting (1 cr)

This course enables students to understand and account for the additional taxes (other than income taxes) paid by business in Washington state, Spokane County and the City of Spokane. Prerequisite: ACCT 103 or permission of instructor. (SFCC)

## ACCT 141 - QuickBooks (1-5 cr)

This course offers a practical approach to computerized accounting using QuickBooks Pro. Students are exposed to basic setup and entry of daily accounting transactions and learn to manage revenue and expense accounts, payroll, inventory, bank reconciliation, and year-end procedures. This course does not fulfill the requirements for students majoring in accounting. Prerequisite: SCC: ACCT 151 or higher, or permission of instructor. SFCC: ACCT& 201, ACCT 151 or higher, or permission of instructor. (SCC, SFCC)

## ACCT 142 - Advanced QuickBooks (1-5 cr)

This course offers a practical approach to computerized accounting using QuickBooks Pro. Students are exposed to advanced setup for service and merchandising companies. Processing quarterly payroll including, preparation of quarterly tax reports, tax transmittals and W2 forms are addressed. This course does not fulfill requirements for students majoring in accounting. Prerequisite: ACCT 141 or permission of instructor. (SCC, SFCC, IEL)

## ACCT 151 – College Accounting I (5 cr)

Students learn the basic concepts of accounting for office, sales and small business personnel. The basic accounting cycle, use of general journals, worksheets, adjusting and closing entries, and complete financial statement preparation are emphasized. Payroll processing and employer payroll tax calculations, and reporting also are covered. These courses must be taken in sequence. These courses do not fulfill requirements for students majoring in accounting. (SCC, SFCC)

## ACCT 152 - College Accounting II (5 cr)

Students learn the basic concepts of accounting for office, sales and small business personnel. The basic accounting cycle, use of general journals, worksheets, adjusting and closing entries, and complete financial statement preparation are emphasized. Payroll processing and employer payroll tax calculations, and reporting also are covered. These courses must be taken in sequence. These courses do not fulfill requirements for students majoring in accounting. (SCC, SFCC)

## ACCT 161 - Payroll Procedures (4 cr)

This course enables students to properly prepare, file and report quarterly payroll taxes; prepare all necessary journal entries for payroll expenses; and prepare all essential end-of-the-year reports for payroll. Prerequisite: SCC: ACCT 151 or permission of instructor and concurrent enrollment in ACCT 162. SFCC: ACCT 103, 115 or permission of instructor and concurrent enrollment in ACCT 162. (SCC, SFCC)

## ACCT 162 – Business Tax Accounting (1 cr)

This course enables students to understand and account for the additional taxes (other than income taxes) paid by businesses in Washington State, Spokane County and the City of Spokane. Prerequisite: SCC: ACCT 151 or permission of instructor and concurrent enrollment in ACCT 161. SFCC: ACCT 103 or permission of instructor and concurrent enrollment in ACCT 161. (SCC, SFCC)

## ACCT& 201 – Prin of Accounting I (5 cr)

An introduction to the fundamentals of accounting, with application to sole proprietorship, partnership and corporate forms of business organization. Must be taken in sequence. (SCC, SFCC)

## ACCT& 202 – Prin of Accounting II (5 cr)

An introduction to the fundamentals of accounting, with application to sole proprietorship, partnership and corporate forms of business organization. Must be taken in sequence. Prerequisite: A grade of 2.0 or better in ACCT& 201 or permission of instructor. (SCC, SFCC)

## ACCT& 203 – Prin of Accounting III (5 cr)

Students learn presentation and interpretation of financial data for managerial use. Applications of accounting output to managerial control and planning are emphasized. Prerequisite: For SCC — ACCT& 201 or permission of instructor. For SFCC — ACCT& 202 or permission of instructor. (SCC, SFCC)

## ACCT 204 — Accounting Integration (5 cr)

Students develop an understanding of the accounting information system, sales and acquisition cycles, internal controls, accounting fraud, accounting for not-for-profit organizations as well as federal taxation and tax return preparation. Prerequisite: ACCT & 201, ACCT 151 or permission of instructor. (SCC)

## ACCT 212 — Accounting Applications and Analysis (5 cr)

An advanced course with emphasis on applications and analysis using accounting theories and concepts studied in principles and theory courses. Areas covered include funds flow analysis, tax elections, book-tax differences, and statement preparation directly from source documents and incomplete records. Prerequisite: ACCT 151 or ACCT & 202. (SCC)

## ACCT 218 – Accounting Analysis Simulation (1 cr)

Students participate in an accounting-oriented computerized business simulation. Grading option: Pass/fail. Prerequisite: Concurrent enrollment in ACCT 212 or permission of instructor. (SCC)

## ACCT 219 — Payroll and Business Taxes (5 cr)

This course is designed to give students a thorough understanding of the most common taxes (other than income taxes) paid by businesses in the states of Idaho and Washington, Spokane County and the City of Spokane. Emphasis will be placed on manual and computerized payroll preparation, understanding the difference between an employee and an independent contractor, and determining when it's necessary to file 1099 forms and the Combined Excise Tax Return form. Current rates and forms will be used. Speakers from the various tax agencies will discuss background, current conditions and benefits relating to their particular tax programs. Prerequisite: ACCT& 201 or ACCT. (SFCC)

## ACCT 220 – Federal Tax Practice (5 cr)

Federal taxation and practice covering the historical background of federal taxation in the U.S.; an overview of the internal revenue code; and detailed analysis and practice in areas of gross income, exclusions, tax accounting, sales, and exchange of property and business deductions will be addressed. (SFCC)

## ACCT 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

## ACCT 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC, SFCC)

## ACCT 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)
# **AGRICULTURE, GENERAL**

# AGGEN 150 - Commercial Driver Training (1 cr)

This course provides training to obtain a class A commercial driver's license in the state of Washington with endorsements for tank vehicles and hazardous materials. The course will not provide instruction pertaining to the transportation of passengers (passenger/bus endorsements). (SCC)

# AGGEN 151 - Shop Skills (4 cr)

This course offers practical knowledge in a wide range of basic mechanical skills found in various agricultural industries. Safe use of hand and power tools, carpentry and woodworking, plumbing, electricity, concrete and masonry, and basic metalworking are emphasized. (SCC)

# AGGEN 152 - Arc Welding (4 cr)

This course offers theory and practical applications using arc welding equipment to perform common maintenance and repairs that are encountered in agricultural occupations. Welding mild steel in flat, horizontal, vertical and overhead positions is emphasized. Students learn to select proper tools and equipment. Correct safety practices are stressed. (SCC)

# AGGEN 153 - Oxy-acetylene Welding (4 cr)

This course offers theory and practical applications using oxy-acetylene welding equipment to perform common maintenance and repairs that are encountered in agricultural occupations. Students learn to select and use oxy-acetylene welding and cutting equipment. (SCC)

#### AGGEN 154 – Small Engine Operation and Maintenance (4 cr)

This course offers theory and practical applications of two- and four-cycle one-cylinder gas engines. The operation, care, maintenance and adjustment of engines common to agricultural applications are emphasized. (SCC)

### AGGEN 156 - Equipment Operation and Maintenance (5 cr)

Safety, operation and preventive maintenance of engines and equipment used in agricultural occupations are emphasized. Theory and operation principles of two- and four-cycle diesel engines are included. (SCC)

# AGGEN 157 - Arc Welding (1 cr)

Theory and practical applications in the selection and use of arc welding equipment are offered in the course. Performing basic maintenance, repair and construction in various mechanical fields are emphasized. (SCC)

# AGGEN 158 - Oxy-acetylene Welding (1 cr)

Theory and practical applications using oxy-acetylene welding and cutting equipment to perform common maintenance, repair and construction jobs that are encountered in a variety of mechanical fields are introduced. (SCC)

# AGGEN 161 – Advanced Maintenance Welding (1-4 cr)

This course introduces students to specific welding-related construction and repair jobs that are encountered in the industry. A menu concept is provided for individual programs to select the competencies required for their individual needs. The following competencies listed may include, but are not limited to, metal identification, specialized oxy-acetylene cutting, hard-facing, soldering and repairing metal parts utilizing a variety of welding processes. Prerequisite: AGGEN 152, 153 or permission of instructor. (SCC)

# AGGEN 162 - Yard Art Welding (1 cr)

This course introduces the student to different forms of cutting and welding that can be used to create artistic forms. Students use new and discarded materials and cutting and welding forms which include, but are not limited to oxy/acetylene welding and cutting, MIG welding, brazing, soldering, and plasma cutting. (SCC)

# AGRICULTURE/HORTICULTURE

# AGHRT 100 - Agricultural Plant Biology (5 cr)

This course introduces nonscience majors to the principles of plant biology. Plant diversity, anatomy, morphology, and growth and development are emphasized. (SCC)

# AGHRT 101 - Basic Crop Science (5 cr)

This course introduces students to the basic principles of agronomy and the science which underlies those principles. Emphasis is placed on crop management practices such as tillage methods, variety selection, and monitoring of crop growth and development. Course objectives are based on the requirements of Certified Crop Advisor exam. (SCC)

# AGHRT 102 - Pesticides and Fertilizer Application Equipment (4 cr)

This course emphasizes the practical application of pesticides and includes discussion and use sprayers and spreaders. Sprayer calibration is taught. Pesticide chemistry, selectivity and mode of action are introduced. Students prepare for the pesticide application exam. (SCC)

# AGHRT 103 — Introduction to Greenhouse and Nursery Production (3 cr)

Students are introduced to greenhouse management and production. Variable physical conditions found in greenhouse environments and how they relate to plant growth and development are emphasized. Principles of greenhouse construction and operation also are covered. (SCC)

### AGHRT 104 – Principles of Pest Management (5 cr)

Students are introduced to diseases, insects and weeds that pose problems to agricultural products in both the growth and storage stage. Options available to reduce or eliminate these problems for specific pest groups are discussed. Management, cultural practices, biological and natural controls, barriers, legislative controls and principles of chemical control are emphasized. (SCC)

# AGHRT 105 – Horticultural Retail Sales (3 cr)

This course provides hands-on experience in the operation of the oncampus retail garden center, including operations, marketing and customer relations. (SCC)

# AGHRT 106 - Greenhouse and Nursery Management I (5 cr)

This is the first in a series of three classes where students become engaged in the scheduling and production of flowering, tropical and bedding plants. Environmental factors affecting plant growth, manipulating the greenhouse environment, soil and water testing, fall propagation and nursery operations are emphasized. (SCC)

# AGHRT 107 - Greenhouse and Nursery Management II (5 cr)

This class is the second in a series of three where students gain hands-on experience in scheduling and production of flowering, tropical and bedding plants. Greenhouse operations, site selection, greenhouse and nursery layout, heating and cooling, seed propagation, winter nursery operations, and bedding plant seed scheduling are emphasized. Prerequisite: AGHRT 106 or permission of instructor. (SCC)

# AGHRT 108 – Greenhouse and Nursery Management III (4 cr)

This class is the third in a series of three where students become engaged in the scheduling and production of flowering, tropical and bedding plants. Plug production, production planning, determining cost and profit, pest and disease management, and spring nursery layout and operations are emphasized. Prerequisite: AGHRT 107 or permission of instructor. (SCC)

# AGHRT 110 – Fall Landscape Plant Materials (5 cr)

Students learn to identify fall landscape plants and their use in the Inland Northwest. Terminology of woody plant parts and plant nomenclature is emphasized. (SCC)

# AGHRT 111 – House Plants (5 cr)

This course introduces students to plant material, cultural requirements and how to properly select plants found in floral shops, mass market outlets and interior plantscapes. Indoor environment also is studied. (SCC)

# AGHRT 112 – Spring Landscape Plant Materials (5 cr)

Students learn to identify spring landscape plants and their use in the Inland Northwest. Conifers, broadleaf evergreens, and spring blooming trees and shrubs are emphasized. (SCC)

# AGHRT 114 – Landscape Maintenance (3 cr)

This course covers major landscape maintenance practices including pruning, planting, fertilizer and pesticide application, landscape equipment operation, and maintenance of irrigation systems. Relevant business practices such as bidding and scheduling also are presented. (SCC)

# AGHRT 115 – Pruning (3 cr)

This course introduces students to the art and science of pruning ornamental trees and shrubs using a combination of lectures and hands-on field experience. (SCC)

# AGHRT 116 – Green Industry Business Management (5 cr)

This practical course introduces basic principles of management found in the agriculture/horticulture industry. Analyzing situations and establishing appropriate procedures are emphasized. Topics presented include types of ownership, basic financial management, personnel management and government agency functions. (SCC)

# AGHRT 119 – Basic Soils (5 cr)

Students are introduced to the various properties of soils as they relate to plant growth. Mineral makeup, organic matter, physical properties, water retention, aeration, temperature, nutrient holding capacity, and how these properties contribute to soil development are emphasized. (SCC)

# AGHRT 120 - Introduction to Animal Science (5 cr)

An introduction to animal science relating to beef, sheep and swine production with emphasis on livestock safety and the environment. Topics to be presented includes livestock breeds, reproduction, digestions, genetics, meats, marketing and breeding systems. (SCC)

# AGHRT 124 – Agriculture Communication Skills (5 cr)

A practical course designed to give the student confidence through the development of human relations and communication skills, both verbal and written. Personal development is gained through an interaction between students and an understanding of course topics. Areas of emphasis includes developing a personal resume, writing letters of application and inquiry, and applying and interviewing for a job. Emphasis also is placed on developing a positive attitude, salesmanship and public relations skills. (SCC)

## AGHRT 125 - Applied Agricultural Mathematics (5 cr)

Students are introduced to agriculturally oriented mathematical problems that are realistic, practical and thought-provoking. Agricultural production, management, marketing, horticulture and mechanization are emphasized. Students review basic mathematical concepts; calculations are accomplished with the aid of a calculator. (SCC)

# AGHRT 126 - Computer Essentials for Environmental Sciences (2-5 cr)

This nonprogramming course introduces students to the use of computers as a tool for evaluating programs in agriculture, horticulture and related fields. Students are familiarized with key software through actual applications to problems in their chosen field of study. Windows, word processing, spreadsheets, databases, graphics and telecommunications are emphasized. (SCC)

#### AGHRT 131 – Horticultural Retail Sales (3 cr)

This course provides hands-on experience in the operation of the oncampus retail garden center, including operations, marketing and customer relations. (SCC)

#### AGHRT 132 – Horticultural Retail Sales (3 cr)

This course provides hands-on experience in the operation of the oncampus retail garden center, including operations, marketing and customer relations. (SCC)

#### AGHRT 150 - Agriculture/Horticulture Orientation (1 cr)

An orientation course for all students entering any of the agribusiness, production agriculture or horticulture options. Each option is explored, including requirements, job opportunities and working conditions. Special emphasis is placed on registration procedures. Grading option: Pass/fail. (SCC)

# AGHRT 171 – Agricultural Leadership Training (1 cr)

This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

#### AGHRT 172 – Agricultural Leadership Training (1 cr)

This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

# AGHRT 173 – Agricultural Leadership Training (1 cr)

This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

# AGHRT 181 – Agricultural Leadership Training (1 cr)

This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

#### AGHRT 182 – Agricultural Leadership Training (1 cr)

This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

# AGHRT 183 – Agricultural Leadership Training (1 cr)

This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

# AGHRT 195 - Practicum (3 cr)

This course offers practical lab experience involving typical problems that arise in the various agricultural/horticultural fields such as florist, greenhouse/nursery and landscape/turf. The areas of emphasis vary depending on the students' chosen program of study. (SCC)

#### AGHRT 201 – Landscape Installation (5 cr)

This course offers hands-on experience in installing landscapes using live projects on and off campus. Students develop competencies to become certified landscape technicians. Prerequisite: Concurrent enrollment in AGHRT 206. (SCC)

#### AGHRT 202 – Principles of Irrigation (5 cr)

This course introduces residential, commercial and agricultural irrigation principles. Sprinkler irrigation methods and designs, and performance characteristics of sprinkler irrigation equipment are emphasized. Prerequisite: AGHRT 125 or permission of instructor. (SCC)

## AGHRT 203 – Agriculture/Horticulture Marketing (5 cr)

This course presents the marketing of agricultural and horticultural crops and products. Direct marketing and value added products are emphasized. Advertising methods, pricing and selling strategies, and the development of marketing plans and break-even charts are introduced. (SCC)

# AGHRT 204 – Landscape Design 1 (4 cr)

This course introduces landscape design and graphical techniques used in the landscape design profession. Students use processes and principles to design landscapes. A history of landscape design and how it has influenced the styles of today is presented. Students learn to draw landscape components and complete landscape designs by hand. (SCC)

#### AGHRT 205 – Landscape Design 2 (4 cr)

This course introduces advanced landscape design principles. Students use processes and principles to design several partial and whole landscapes using hand-drawn designs as well as computer aided drafting (CAD software). Prerequisite: AGHRT 204. (SCC)

# AGHRT 206 – Landscape Construction (5 cr)

Students are introduced to the principles and procedures of landscape construction. Estimation, bidding and site preparation, as well as the removal and installation of landscape features such as plant materials, irrigation systems and a variety of hard features. Prerequisite: AGGEN 151 or permission of instructor. (SCC)

# AGHRT 208 – Basic Landscape Design Lab (2 cr)

Lab techniques of planting design for media presentations on residential sales are emphasized. Prerequisite: AGHRT 204 or concurrent enrollment. (SCC)

#### AGHRT 210 – Indoor Plantscaping (3 cr)

A study of the plants used in the interior design of homes, offices and public buildings. Design principles, environmental and cultural needs of plants also are introduced. Course emphasis is on the professional maintenance of indoor plants. (SCC)

# AGHRT 211 – Floral Design Techniques (5 cr)

This course introduces students to basic methods and principles of floral design with emphasis on the care and handling of flowers and plants, the use of color in floral arrangements, and the creation of a variety of floral arrangements. (SCC)

#### AGHRT 212 – Floral Design Applications (5 cr)

This course continues with the concepts introduced in AGHRT 211 emphasizing advanced floral arrangement methods. The study of historical periods of design and their application to contemporary floral design methods is presented. Prerequisite: AGHRT 211 or permission of instructor. (SCC)

# AGHRT 213 – Retail Floristry (5 cr)

Students are introduced to the principles of successful florist management. Effective merchandising techniques and the creation of advanced floral arrangements are emphasized. Prerequisite: AGHRT 212 or permission of instructor. (SCC)

# AGHRT 218 – Agricultural Marketing (5 cr)

A practical course studying the marketing of agricultural-related products with emphasis on the marketing and merchandising of supplies and services to primary producers and the marketing and merchandising of agricultural products from the primary producer to the end consumer. This study includes marketing terms, principles and costs. The development of a marketing plan and a comparison of the traditional, and as new alternative marketing trends are discussed. (SCC)

# AGHRT 219 – Soil Management and Fertility (5 cr)

This course gives students a working knowledge of soil management. Students learn the role of each of the essential elements in plant growth and the deficiency symptoms of each. They also learn how the nutrients are stored in the soil and how they become available to plants. Numerous types of fertilizers and how each is used by plants are introduced. Various agricultural and horticultural soil management practices are discussed as well as how each affects the condition of the soil. Prerequisite: AGHRT 119. (SCC)

#### See program/course abbreviation key on page 143.

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#### AGHRT 220 - Agricultural Recordkeeping and Analysis (5 cr)

This is an introduction to the methods of keeping and analyzing financial records with emphasis on double-entry accrual accounting. Areas of emphasis includes the application of basic accounting principles, to small businesses in agriculture and horticulture. (SCC)

# AGHRT 222 - Livestock Management (5 cr)

An introduction to animal science relating to beef, sheep and swine production with emphasis on livestock safety and the environment. Topics to be presented includes livestock breeds, reproduction, digestion, genetics, meats, marketing and breeding systems. (SCC)

# AGHRT 223 – Horse Selection, Health and Management (5 cr)

This course introduces students to the development of the different breeds of horses, functional anatomy, nutrition and feeding, reproduction, horse health, and management. (SCC)

#### AGHRT 225 – Weed Biology and Control (5 cr)

This course introduces students to the basic principles and economic significance of weed biology, identification and control. Students learn to identify weeds in all stages of growth and the common characteristics of each of the weed families. The principles of weed control using herbicides are emphasized. A weed collection is required. Prerequisite: AGHRT 104 is recommended. (SCC)

#### AGHRT 226 - Turfgrass Management (5 cr)

This course introduces theory and practical application in landscape management techniques. Grass selection and establishment, soil management, fertilization, irrigation, mowing, pest management and other cultural practices required in the care of home lawns, parks and golf courses are emphasized. Prerequisite: AGHRT 100, 104 or permission of instructor. (SCC)

# AGHRT 228 - Arboriculture (5 cr)

This course presents the study of woody urban landscape plant forms including growth, selection, pruning, planting, maintenance and problem solving. (SCC)

#### AGHRT 229 – Arboriculture Climbing Techniques (3 cr)

This is a practical class to train students in safety, use of equipment and climbing techniques used in the arboriculture industry. Emphasis is on methods appropriate to the rope and saddle technique of tree access. (SCC)

# AGHRT 230 - Plant Problem Diagnosis (5 cr)

Students study insects, diseases and environmental factors that adversely affect the health of agricultural and greenhouse crops and landscape plants. Problem diagnosis, identification of causal agent(s), and preparing recommendations for both chemical and cultural controls are emphasized. Prerequisite: AGHRT 104 or permission of instructor. (SCC)

#### AGHRT 231 - Agricultural Insects and Diseases (5 cr)

Students study insects, bacteria, fungi, viruses and environmental factors that adversely affect the health of agricultural plants. Emphasis in on problem diagnosis, prevention, identification of causal agent(s), and preparing recommendations for both chemical and cultural control. Prerequisite: AGHRT 104 or permission of instructor. (SCC)

# AGHRT 232 – Pest Management Project (2 cr)

This is the capstone of the pest management series of courses. Students create a pest management plan for a crop or landscape including a variety of control measures for key pests. Students learn to select control measures based on a number of criteria. Prerequisite: AGHRT 104 is recommended and concurrent enrollment in AGHRT 230. (SCC)

#### AGHRT 234 - Bidding and Estimating (3 cr)

This course introduces the student to bidding and estimating practices for landscape design, construction, installation, and maintenance. Students learn to account for the numerous factors affecting the cost of these landscape practices. Contracts and risk management are also taught. (SCC)

#### AGHRT 240 - Practicum - Floral Design Projects 1 (3 cr)

This course provides practical lab experience involving advanced floral design techniques and floral shop management. Prerequisite: AGHRT 213. (SCC)

# AGHRT 241 - Practicum - Floral Design Projects 2 (3 cr)

This course provides practical lab experience involving advanced floral design techniques and floral shop management. Prerequisite: AGHRT 213. (SCC)

#### AGHRT 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

AGHRT 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### AGHRT 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### AGHRT 296 – Special Problems (1-3 cr)

This course is designed to meet specific skill levels for individual students. Course content varies depending on areas of special interest and the number of credits chosen. Established guidelines allow students to research special areas of interest. Prerequisite: Permission of instructor. (SCC)

# AGHRT 297 - Special Problems (1-3 cr)

This course is designed to meet specific skill levels for individual students. Course content varies depending on areas of special interest and the number of credits chosen. Established guidelines allow students to research special areas of interest. Prerequisite: Permission of instructor. (SCC)

# **AMERICAN SIGN LANGUAGE**

#### ASL& 121 – Am Sign Language I (5 cr)

First course in a series of three American Sign Language (ASL) courses that are prerequisites for the interpreter training program or can be taken for modern language credit. ASL I introduces at least 360 vocabulary words, receptive and expressive skills, deaf culture, and grammatical structure of ASL. (SCC, SFCC)

#### ASL& 122 – Am Sign Language II (5 cr)

Second course in a three-course series of American Sign Language (ASL). All are prerequisites to enter the interpreter training program or can be taken for modern language credit. This course l adds vocabulary development of at least 450 signs and their respective glosses, receptive and expressive skills, and enhance use and understanding of grammatical structure of ASL.Various aspects of deaf culture is discussed. Prerequisite: ASL& 121. (SCC, SFCC)

# ASL& 123 – Am Sign Language III (5 cr)

This is the third course in a three- course series of American Sign Language (ASL). All are prerequisites to enter the interpreter training program or can be taken for modern language credit. This course increases vocabulary by introducing at least 350 new vocabulary words, advances receptive and expressive skills, enhances use of appropriate grammatical features of ASL and relate cultural aspects of the deaf community. Prerequisite: ASL& 121, 122. (SCC, SFCC)

#### ASL& 221 – American Sign Language IV (5 cr)

This is the fourth course in a series of 6 American Sign Language courses. This course emphasizes expressive and receptive communication skills involving elementary school coursework and accompanying vocabulary of at least 350 words; demand-control schema and aspects of ASL grammatical features. Information about Roles and Responsibilities of educational interpreters will be incorporated into each task. Prerequisite: ASL& 123 and concurrent enrollment in ITP 231, 241. (SFCC)

# ASL& 222 – American Sign Language V (5 cr)

This is the fifth course in a series of 6 American Sign Language courses. This course incorporates expressive and receptive communication skills involving middle school subject matter and accompanying vocabulary of at least 400 words; additional information about demand-control schema and aspects of ASL grammatical features. Information about Deaf Culture will be compared to that of the majority hearing culture. Prerequisite: ASL& 221 and concurrent enrollment in ITP 232, 242. (SFCC)

#### ASL& 223 – American Sign Language VI (5 cr)

This is the sixth course in a series of 6 American Sign Language courses. This course incorporates expressive and receptive communication skills involving high school subject matter and accompanying vocabulary of at least 350 words; comparative information about demand-control schema and aspects of ASL grammatical features. Information about Deaf Culture will be compared to that of the majority hearing culture. Prerequisite: ASL& 222 and concurrent enrollment in ITP 233, 243. (SFCC)

# ANTHROPOLOGY

# ANTH& 100 – Survey of Anthropology (5 cr)

Introduction to physical anthropology; the study of evolution, fossil forms and old world archeology. Prerequisite: SFCC required minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# ANTH& 206 - Cultural Anthropology (5 cr)

Introduces the student to the concept of culture and the studies of people of the world. This is an introduction to the theories that these studies are based upon and the development of an anthropological perspective of the world and its peoples. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ANTH& 210 – Indians of North America (5 cr)

A descriptive account of the American Indians, confined to the Indians north of Mexico from prehistoric to the reservation period. There is a concentration on the Indians of the Northwest and the Plains Indians, with an emphasis on their social, political and material culture. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

# ANTH 221 — Stone Age Survival (5 cr)

A general introduction to primitive technology. The student is given a chance to replicate tools. Explores kinship, ethnobotany and metaphysical positions that were held by prehistoric folks. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

# **APPLIED EDUCATION**

# APLED 091 – Success Strategies for Professional/Technical Students (3-4 cr)

This is an introductory course to the skills needed to succeed in professional/ technical programs. Topics include study skills, reading comprehension, listening strategies, learning styles and an introduction to technical writing. Prerequisite: Current enrollment in a professional/technical program or placement on a professional/technical program waiting list. (SCC)

# APLED 112 – Applied Mathematics (3-5 cr)

This course is an introduction to mathematical theory and its application to the professional/technical fields. Topics include an overview of general mathematical concepts, geometry, trigonometry and algebra, and how they are successfully utilized in practical situations. (SCC)

# APLED 121 – Applied Written Communication (4 cr)

This course is an introduction to written communication skills and their application to vocational and academic studies. Development of writing skills necessary to plan and write technically formatted documents is emphasized. (SCC)

# APLED 123 - Leadership Skills for Business and Industry (3-4 cr)

This course is an introduction to verbal communication and team-building skills necessary for success in business and industry. Methods of improving communication including nonverbal communication and conflict management are emphasized. Verbal presentation strategies are presented. (SCC)

# APLED 125 – Employment Preparation (3 cr)

This course provides advanced communication concepts that focus on resume writing, job interviewing, team building, problem solving and presentational skills. Course content varies depending upon the needs of individual departments. Prerequisite: APLED 121 and 5th or 6th quarter standing. (SCC)

# **AQUATICS**

## AQUAT 101 - Beginning Swimming (1 cr)

This course introduces water safety techniques, development of confidence, floating and elementary strokes with special attention to form. Upon passage of skill levels, students are issued the appropriate Red Cross cards. (SCC)

# AQUAT 110 – Intermediate Swimming (1 cr)

Students learn and perfect five basic strokes. Five advanced strokes are introduced, and basic rescue and water safety are emphasized. American Red Cross cards are awarded to those who successfully complete the course. Prerequisite: American Red Cross beginner's skills or permission of instructor. (SCC)

# AQUAT 115 - Swimming (1 cr)

Students learn to improve skills at their own rate. Muscular and cardiorespiratory function through stroke development and general swimming activity are emphasized. (SCC)

# AQUAT 132 – Springboard Diving - Beginning (1 cr)

This course introduces the skills and techniques of springboard diving. Approaches, take offs and entries for five basic dives are emphasized. (SCC)

#### AQUAT 136 – Aquatic Fitness (1 cr)

This progressive program of simple exercises in and out of the water develops general body conditioning and improves efficiency of the heart, lungs and circulation. Nonswimmers, as well as swimmers, benefit from this course. (SCC)

# AQUAT 224 - Water Safety Instructor (2 cr)

This course covers swimming, life saving skills and fundamentals necessary to achieve W.S.I. certification. Students prepare for employment as teachers or administrators of aquatic programs. Prerequisite: Current lifeguard training certification; 17 years of age. (SCC)

# AQUAT 230 - Lifeguard Training (2 cr)

Proper guidelines for lifeguarding in pools are covered in this course. Standard first aid and CPR for the professional rescuer are included, as is American Red Cross certification. Prerequisite: Intermediate swimming level; 15 years of age. (SCC)

# AQUAT 232 - Springboard Diving - Advanced (1 cr)

This course introduces the skills and techniques of springboard diving. Approaches, take offs and entries for five basic dives are emphasized. (SCC)

# **ARCHITECTURAL TECHNOLOGY**

## ARCHT 112 – Introduction to Architectural Drafting (7 cr)

This course includes instruction in the elements of floor plans and elevation development for inclusion in, and development of, a set of working drawings for a small residential project. Emphasis is placed on line construction, line quality and lettering. (SCC)

# ARCHT 114 - Architectural Math (3 cr)

This course offers a review of basic math related to architectural drafting and math skills required for the construction industry. (SCC)

## ARCHT 120 – Residential Architecture Theory (3 cr)

This course introduces students to the architectural drafting profession, including a historical review and basic principles of residential drafting. Career opportunities, comparisons with related professions, options regarding continuing education leading to a bachelor's degree and architectural licensing also are explored. (SCC)

# ARCHT 122 – Basic Residential Drafting (5-7 cr)

Practical applications in the development of detailed architectural drawings for multilevel residences, quality lettering, line weight, drafting composition, drawing coordination and accuracy are emphasized. Preparation of a complete set of working drawings for each residence are included. Prerequisite: ARCHT 112 or permission of instructor. (SCC)

#### ARCHT 124 – Advanced Architectural Math (2 cr)

This course continues the principles introduced in ARCHT 114. Advanced math skills required for the construction industry are emphasized. Prerequisite: ARCHT 114 or permission of instructor. (SCC)

# ARCHT 125 – Residential Building Codes (2 cr)

This course introduces uniform building codes as they apply to residential construction projects. An overview of general building codes is presented. (SCC)

# ARCHT 126 – Introduction to Computer Assisted Drafting (1-5 cr)

Students are introduced to the basic principles of CAD commands. Practical applications of a drawing software package and the creation of basic working drawings are emphasized. (SCC)

# ARCHT 130 – Residential Building Materials (4 cr)

This is an introductory course to the materials commonly used in residential construction. A variety of building components, their applications and limitations, and basic construction methods will be emphasized. (SCC)

# ARCHT 132 – Advanced Residential Drafting/CAD (7 cr)

This course provides students with practical applications utilizing all theory and training presented in previous quarters. Students develop complete sets of working drawings from plans of their choice and/or the construction program project house. Prerequisite: ARCHT 122 or permission of instructor. (SCC)

#### ARCHT 134 – Electrical and Mechanical Systems (3 cr)

This course introduces students to electrical and mechanical systems used on structures. Drafting techniques used to produce electrical and mechanical drawings are presented. Prerequisite: ARCHT 120 or permission of instructor. (SCC)

# ARCHT 138 - CAD Applications (5 cr)

This course presents additional computer aided drafting (CAD) techniques. Specific details of stair, fireplace, window, cabinet and deck connections are emphasized. Prerequisite: ARCHT 122. (SCC)

# ARCHT 139 – Delineation (4 cr)

This course explores numerous sketching techniques for plan and elevation development in addition to the fundamentals of perspective drawing to produce pictorial images for communication and design concepts. (SCC)

#### ARCHT 196 – Special Problems (2-5 cr)

This course offers an in-depth study of advanced topics relevant to the architectural technology field. Content includes basic and advanced blueprint reading, commercial building materials, sketching methods and techniques, site planning, and the uniform building code. Course content varies depending on program and student demand. (SCC)

# ARCHT 240 – Commercial Building Codes (3 cr)

This course introduces code analysis and code conformance for nonresidential projects. Prerequisite: ARCHT 125 or permission of instructor. (SCC)

# ARCHT 242 – Introduction to Commercial Drafting/CAD (8 cr)

Students receive practical lab experience in the development of a set of architectural working drawings from a preliminary design of a commercial building. Structural steel framing systems are emphasized with drawing on autocad software. Prerequisite: ARCHT 132 or permission of instructor. (SCC)

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Students are introduced to the commercial architectural drafting profession, including the processes and materials used in the construction of heavy timber, concrete and steel systems. Specific commercial drafting opportunities and procedures are emphasized. (SCC)

# ARCHT 250 – Introduction to Commercial Building Materials (4 cr)

Students are introduced to the materials commonly used in commercial construction. A variety of building components, their applications and limitations, and basic construction methods are emphasized. (SCC)

# ARCHT 251 – Advanced Commercial Building Codes (3 cr)

This course continues the concepts presented in ARCHT 240. Advanced code analysis and code conformance on commercial projects are emphasized. Prerequisite: ARCHT 240. (SCC)

## ARCHT 252 - Basic Commercial Drafting/CAD (8 cr)

Practical lab experience is offered in this course in the development of a set of working drawings from a preliminary design of a nonresidential building utilizing structural concrete framing systems. Applications are drawn on the computer using Desktop Architectural software. Prerequisite: ARCHT 242 or permission of instructor. (SCC)

#### ARCHT 253 - Introduction to Architectural CAD (5 cr)

Students are introduced to the basic principles of CAD and its application to the architectural drafting field. Practical applications of a drawing software package and the creation of basic working drawings are emphasized. (SCC)

# ARCHT 262 – Advanced Commercial Drafting/CAD (10 cr)

Practical lab experience is utilized in the development of a set of working drawings from a preliminary design of the student's choice. Final development is drawn on the computer using Architectural Desktop software. Prerequisite: ARCHT 252 or permission of instructor. (SCC)

# ARCHT 263 - Advanced Commercial Building Materials (4 cr)

This course continues the concepts presented in ARCHT 250. A variety of building components, their applications and limitations, and basic construction methods are emphasized. Prerequisite: ARCHT 250. (SCC)

# ARCHT 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# ARCHT 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# ARCHT 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# ART

# ART& 100 - Art Appreciation (5 cr)

A course to develop an appreciation and awareness of art, and to make art effective in daily living. Prerequisite: Recommend reading level: 80 COMPAS/40 ASSET. (SCC, SFCC)

#### ART 101 - Fundamentals of Drawing (4 cr)

Freehand drawing from observation is taught. Studies of form, texture, line, mass, shape and perspective applied to expressive drawing for the beginning student. (SFCC)

# ART 102 – Drawing Composition (4 cr)

Includes studies of form, texture, line, mass and shape applied to expressive drawing with emphasis on good composition. (SFCC)

# ART 103 - Drawing Techniques (4 cr)

Studies of form, texture, line, mass and shape are applied to expressive drawing with emphasis on a variety of drawing techniques. (SFCC)

#### ART 104 – Perspective Drawing (4 cr)

Students study fundamentals of perspective drawing for the artist and designer. One-, two- and three-point linear perspective; aerial perspective; the effects of light and shadow. (SFCC)

# ART 105 – Color and Design (5 cr)

A first-quarter studio class introducing the elements and principles of twodimensional design. This course emphasizes the structures and theories of color as it is perceived via pigment and light. Through individual projects, exercises and discussion, the student learns basic art vocabulary, compositional structure, analytical skills and professional craftsmanship. (SFCC)

# ART 106 - 3-D Design (4 cr)

A second-quarter design class continuing the development and exploration of the elements and principles of design with the emphasis on form and space. A variety of processes including modeling, carving, casting and fabrication are introduced through a series of exercises. Materials may include paper, wood, found objects, metals, clay, plaster and latex. Students learn safety procedures and the proper use of hand and power tools. Prerequisite: ART 105 or permission of instructor. (SFCC)

#### ART 108 – Ancient/Medieval Art (5 cr)

History of the development of major and minor arts from prehistoric times through the Middle Ages. The civilizations of the Near East, Egypt and the classical world are introduced through illustrated lecture and individual research. The developing art of Western Europe during the Middle Ages is seen in the context of its political, social, economic and religious environment. (SCC, SFCC)

# ART 109 - Renaissance/Baroque Art (5 cr)

History of the development of major and minor arts from the Early Renaissance through the 18th century. Through illustrated lectures and individual research, the student will explore the work of individual artists, observe the changing role of the artist in his/her society, note the support systems of art patronage, and attempt to assess the aesthetics of the given period or style. (SCC, SFCC)

## ART 110 – Modern Art (5 cr)

History of the development of modern art beginning with the 19th century and concluding with an emphasis on contemporary art and architecture. The course attempts to critically assess the aesthetics of art styles and ideologies. Through illustrated lectures and individual research the student are exposed to a variety of contemporary approaches and media in the visual arts. (SCC, SFCC)

#### ART 111 - Art History (1-15 cr)

A special interest course offered when the opportunity arises; may include field trips and tours in addition to lecture and discussions. (SFCC)

#### ART 112 – Non-Western Art (5 cr)

This course is designed to explore the art from cultures outside the European tradition such as Asian, African, Meso American and groups from the North American continent. In addition to the basic slide/lecture format, there are guest speakers, films and videos, and one or two short art experiences. Pre-requisite: Recommended reading level 80 compass/40 asset. (SCC, SFCC)

# ART 122 – Health and Safety in Art (1 cr)

Designed to develop awareness of health, safety and toxicology concerns as they pertain to processes and materials used in the visual arts. Information on hazards and the necessary precautions for individual media, ventilation, substitutes for hazardous materials and safety in the studio is included. A recommended course for all art students. (SFCC)

# ART 127 – Visual Arts Special Workshops (1-15 cr)

This course provides intensive studio experiences in specialized areas of visual arts including techniques or concepts not already covered by existing classes. May be repeated for a maximum of 15 credits. (SCC, SFCC)

# ART 130 — Sculpture (4 cr)

Studio investigation of various sculptural concepts, materials and processes. Students work with equipment and tools and are given specific problems dealing with a variety of materials. Advanced students work closely and contractually with the instructor. Independent research and exploration is encouraged at beginning and advanced levels. May be repeated for a total of 16 credits. Prerequisite: ART 106 or 205 or an academic art course or permission of instructor. (SFCC)

#### ART 147 – Advanced Design (3 cr)

Advanced problems in aesthetic and symbolic considerations of 2-D and 3-D design. May be repeated for a total of 6 credits. Prerequisite: ART 105. (SFCC)

# ART 151 – Calligraphy (3 cr)

Lettering basics including an application of drawn and indicated letter forms, space copy and basic lettering strokes. May be repeated for a total of 6 credits. (SFCC)

#### ART 161 - Portfolio I (1 cr)

A studio seminar to be taken at the end of the first year. An introduction to professional practices including preparation of a portfolio of original work, documentation of work using a copy stand and camera, and writing an artist's statement. Independent research, seminar discussions, guest artists, and viewing exhibitions and performances. Required for C.F.A. and A.F.A. candidates. To be taken spring quarter in the first year. Prerequisite: ART 106, 110 and 202, plus 10 additional Art credits at SFCC or permission of instructor. The above can be taken concurrently with ART 161. (SFCC)

#### ART 180 — Watercolor (4 cr)

Transparent and opaque watercolor, as well as other water mediums. Students learn to stretch paper and to handle the traditional tools and papers of this medium. Individual projects designed to encourage exploration and personal expression. May be repeated for a total of 16 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

# ART 186 – Oil Painting (4 cr)

Working with oil medium on canvas, board or paper. Practice in stretching canvas, preparing the ground and mixing paint. Course emphasizes the formal aspects of composition and the development of an expressive approach to subjects and themes. May be repeated for a total of 16 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

# ART 188 – Acrylic Painting (4 cr)

Working with acrylic and other compatible mediums on surfaces such as canvas, board or paper. Practice in stretching canvas, preparing the ground and mixing paint. Course emphasizes the formal aspects of composition and the development of an expressive approach to subjects and themes. On occasion, this course may be offered specifically to teach mural painting. May be repeated for a total of 16 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

# ART 189 - Printmaking (4 cr)

A survey of the various printing processes, and an exploration into these to encourage the student to experiment and make comparisons as to the various qualities of each medium. Instructor may select from metal, stone, wood and linoleum, incorporating monotype, stenciling and stamping approaches in order to help students develop the knowledge of tools, materials and techniques. May be repeated for a total of 16 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

#### ART 190 – Printmaking Relief (4 cr)

Using surfaces such as wood and linoleum, the student explores direct and indirect methods of image formation. Stamping, frottage, embossing and traditional relief methods will be explored, as well as use of color on single and multiple plates. May be repeated for a total of 12 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

#### ART 191 – Screen Printing (4 cr)

Individual exploration of screen printing may include the photo process, tusche and glue, and cut stencil. The instructor considers both technical and aesthetic concerns. May be repeated for a total of 12 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

#### ART 192 - Printmaking, Intaglio (4 cr)

Dry point, engraving, etching, embossing and collography will be explored on surfaces such as zinc, copper, masonite and cardboard. Students may apply techniques such as soft ground, sugar lift, aquatint and color printing in conjunction with design concepts. May be repeated for a total of 12 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

## ART 193 – Lithography (Printmaking) (4 cr)

Students process directly drawn images on Bavarian limestone using wash and line drawing techniques. Color application is possible. The technique is based on the natural antipathy of grease and water. May be repeated for a total of 12 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

#### ART 194 - Jewelry (3 cr)

Design and construction of jewelry in various materials including contemporary materials with emphasis on design and craftsmanship. Course applies to the artist as a craftsperson in the professional field. May be repeated for a total of 9 credits. Prerequisite: ART 101 or 102 or 103 or 105. (SFCC)

#### ART 197 - Art Mediums and Techniques (3 cr)

Introduction to various craft techniques. May include papermaking, mixed media, simple book designing, weaving, ceramic arts, enameling and printing techniques. Application of the elements and principles of design. Good craftsmanship is stressed. May be repeated for a total of 9 credits. (SFCC)

#### ART 201 – Experimental Drawing (3 cr)

Studio and outside assignments are designed to expand the student's understanding of drawing concepts. Student is expected to participate in individual and group assignments that challenge the traditional definitions of drawing. Emphasis is on a creative approach to traditional and unconventional materials. Prerequisite: ART 101 or 102 or 103 or 202 or permission of instructor. (SFCC)

#### ART 202 - Figure Drawing (3 cr)

Working from a live model, the student explores a range of drawing approaches including gestural drawings, sustained renderings, structural drawings and expressive treatment of the figure. Exercises are performed which emphasize anatomical structure and focus on fragments, such as hand studies and portraiture. The development of a personal approach to drawing the figure and an examination of how the figure can be handled in art is explored through such means as critiques, slide presentations and demonstrations. May be repeated for a total of 18 credits. Prerequisite: ART 101 or 102 or 103 or permission of instructor. (SFCC)

#### ART 205 – Ceramics (4 cr)

Clay forming processes, hand-building, potter's wheel and principles of glazing and firing. May be repeated for a total of 12 credits. (SFCC)

#### ART 206 – Advanced Ceramics (4 cr)

This course involves advanced work in ceramics including specialized glaze and firing techniques, sculpture and functional form, student-based research project, and development of individual artistic concepts in clay. May be repeated for a total of 12 credits. Prerequisite: Three quarters of ART 205 or permission of instructor. (SFCC)

#### ART 208 - Gallery and Museum Procedures (3 cr)

Arranging exhibits; matting, framing, building sculpture stands or other devices, easels, etc. for display; preparation of posters or other announcements for shows; proper handling of a show and how to acquire traveling exhibits; providing insurance and other necessary accompanying details; proper packing and shipping of traveling shows; and research in innovative ways of exhibiting 2-D and 3-D works. May be repeated for a total of 9 credits. Prerequisite: ART 105 and 5 credits of an academic art (ART 100, ART 108, 109, 110, 112). (SFCC)

#### ART 261 – Exhibit (1 cr)

Planning and installation of a culminating exhibition. Seminar dealing with professional practices: slide documentation, presentation and exhibitions, resumes and statements, and public relations. Critiques and articulation of personal work. Independent research, seminar discussions, gallery visits and guest artists. Required for all C.F.A. and A.F.A. candidates for graduation. To be taken spring quarter in the second year. Prerequisite: ART 161 plus 25 credits in art at SFCC or permission of instructor. (SFCC)

#### ART 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

ART 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC, SFCC)

# **ASTRONOMY**

#### ASTR& 100 – Survey of Astronomy (5 cr)

This course, offered as a television class, is a survey of astronomy including history, the solar system, stellar evolution and cosmology. While some laboratory work and field trips are elements of this course, it does not qualify as a laboratory science. Credit will not be granted for both ASTR& 101 and 100. This is a physical science course. (SCC, SFCC)

#### ASTR& 101 – Intro to Astronomy (5 cr)

An introductory study of the history and concepts of astronomy including the solar system, stars, galaxies and cosmology. Includes laboratory exercises and student projects. Credit will not be granted for both ASTR& 101 and ASTR& 100. (SCC, SFCC)

# AUDIO TECHNOLOGY

#### AUDIO 113 – Live Sound and Location Recording I (3 cr)

This course instructs students in the design and use of live sound reinforcement systems and principles of live concert recording. Students receive hands-on training in cabling, acoustics, equalization, critical listening, and mixing, as well as techniques for successful location recording. Prerequisite: AUDIO 117, 155 and concurrent enrollment in AUDIO 120. (SFCC)

#### AUDIO 116 – Music Basics for Audio Professionals (5 cr)

Students learn basic music theory, vocabulary, instrumental concepts and communication skills needed to succeed in the professional recording industry. Basic keyboard skills are developed as preparation for MIDI sequencing. Prerequisite: Concurrent enrollment in AUDIO 155. (SFCC)

#### AUDIO 117 - Introduction to Music Technology (5 cr)

Students learn the history of electronic music, and the development of analog/digital synthesis and sampling technology. MIDI concepts and applications are covered. Students receive hands-on experience programming and editing sounds on analog synthesizers and digital samplers. Basic PC computer music sequencing is introduced. (SFCC)

#### AUDIO 120 – Digital Audio I (4 cr)

This course is an introduction to digital audio workstations, including: basic audio recording, editing and mixing functions, MIDI sequencing and arranging, digital audio theory, file management, and basic operating system skills. Prerequisite: AUDIO 116, 117, 155, MUSC& 141 and concurrent enrollment in AUDIO 156. (SFCC)

#### AUDIO 121 – Digital Audio II (4 cr)

This course is a continuation of Digital Audio I and provides intermediate level Digital Audio Workstation instruction. Students further explore the recording, editing, and mixing capabilities of DAW software. Prerequisite: AUDIO 120, 156. (SFCC)

#### AUDIO 151 – Audio Project I (1 cr)

Students plan and implement complete recording studio projects including set up, recording, overdubbing, mixdown and mastering. Prerequisite: AUDIO 155 and concurrent enrollment in AUDIO 156. (SFCC)

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#### AUDIO 155 - Introduction to Recording (5 cr)

This course is an introduction to techniques and equipment for audio recording. Students study acoustics, studio construction, microphones, signal flow, multitrack recording, signal processing and receive hands-on recording experience. Prerequisite: Concurrent enrollment in AUDIO 117. (SFCC)

# AUDIO 156 – Audio Engineering I (4 cr)

Students study multitrack recording and mixdown techniques including signal flow, microphone techniques, reverb, delay, effects, signal processing and basic mastering. Critical listening and aural skills are developed and applied in mixdowns and Audio Project classes. Prerequisite: AUDIO 155 and concurrent enrollment in AUDIO 151. (SFCC)

#### AUDIO 159 - Business of Music (5 cr)

With emphasis on human relations and personal communication skills, students are guided through the maze of the music industry. Skills are developed for working with agents, managers, attorneys, recording company executives, ad agencies, promoters, club owners and musicians. Various music and studio career opportunities are explored along with the pros and cons of contracts, unions, guilds, copyright, publishing and performing rights organizations. (SFCC)

#### AUDIO 205 - MIDI Arranging (5 cr)

Students compose and arrange music for small groups of instruments as used in live performance, commercial radio and TV jingles. Using Finale notation software and MIDI production software for the Mac workstation, students study composition and style techniques. Prerequisite: AUDIO 218, MUSC 214 and concurrent enrollment in AUDIO 213 and 219 or 255. (SFCC)

#### AUDIO 206 - Scoring for Film and Multi-Media (5 cr)

This advanced course provides students with a comprehensive foundation of music scoring and sound design structures for film and video. Students use Mac computer workstations and music production software. Open to full time students in the Audio Technology program. Prerequisite: AUDIO 205, 219 and concurrent enrollment in AUDIO 220, 259. (SFCC)

#### AUDIO 213 - Live Sound II (4 cr)

This course is a continuation of AUDIO 113 with emphasis on setup and operation of larger systems. Students study system design, signal processing, acoustics, troubleshooting, critical listening and effective communication. Students receive extensive hands-on experience running sound for a variety of music ensembles. Prerequisite: AUDIO 113, 156 and concurrent enrollment in AUDIO 217, 218, MUSC 214. (SFCC)

#### AUDIO 217 – System Setup and Maintenance (3 cr)

Students learn to set up and solve technical problems within a digital audio/ MIDI workstation. Learn about MIDI/Audio interface connections and troubleshooting in both digital and combination digital /analog recording studio environments. Prerequisite: MUSC 167 and concurrent enrollment in AUDIO 218 and 213 or 255, MUSC 214. (SFCC)

# AUDIO 218 - Digital Audio III (5 cr)

This course provides intermediate level instruction on ProTools digital audio workstations with an emphasis on music editing and professional mixing techniques. Prerequisite: AUDIO 121, 156 and MUSC 167. (SFCC)

#### AUDIO 219 – Digital Audio IV (5 cr)

This course provides advanced level instruction on Pro Tools digital audio workstations with an emphasis on MIDI and music production. Prerequisite: AUDIO 218 and 213 or 255 and concurrent enrollment in AUDIO 205, 213 or 255. (SFCC)

# AUDIO 220 - Digital Audio V (5 cr)

This course will provide an overview of the sound for picture industry as well as in-depth instruction on sound effects creation/ editing, ADR, field recording, synch, and post-production utilizing Pro Tools digital audio workstations. Prerequisite: AUDIO 213, 218 or 255 and concurrent enrollment in AUDIO 205, 213 or 255. (SFCC)

# AUDIO 251 – Audio Projects II (1 cr)

Students record, edit, and mix audio projects for their portfolios in this course. Students begin pre-production and then projects are assessed at several points during the recording process. Finished mixes are critiqued and then mastered. Prerequisite: AUDIO 151, 255, 219 and concurrent enrollment in AUDIO 260. (SFCC)

#### AUDIO 255 - Audio Engineering II (4 cr)

Students study more advanced audio recording and production techniques as they participate in live recording and mixdown sessions. This includes further study of analog and digital signal processing multitrack editing and CD production. Prerequisite: AUDIO 121, 156 and concurrent enrollment in AUDIO 217, 218, MUSC 214. (SFCC)

#### AUDIO 259 – Business of Music II (5 cr)

Students explore the numerous career options in Audio Technology, from CD production to live sound to film scoring. Emphasis is on recording studio ownership, including studio design, equipment, budget, taxes, sales, marketing and income opportunities. Students develop a studio business plan and investigate the world of the producer. Prerequisite: AUDIO 113, 156, 159. (SFCC)

## AUDIO 260 - Audio Portfolio (1 cr)

In this course students assemble a professional audio portfolio for presentation to prospective employers. Students learn advanced signal processing techniques and develop refined critical listening skills. Prerequisite: AUDIO 151, 255, 219 and concurrent enrollment in AUDIO 206, 220, 251. (SFCC)

# AUDIO 266 - Cooperative Education Seminar (1 cr)

For course description, see Cooperative Education. (SFCC)

**AUDIO 267 – Cooperative Education Work Experience (1-3 cr)** For course description, see Cooperative Education. (SFCC)

# AUTOMOTIVE COLLISION AND REFINISHING TECHNICIAN

# ABF 113 – Introduction to Job Safety, Tools, and Equipment (4 cr)

Students are introduced to personal safety and health protection requirements found in typical body shops. General shop procedures and operations are emphasized. Prerequisite: Concurrent enrollment in ABF 114, 115, 116. (SCC)

# ABF 114 — Introduction to Unibody and Frame Alignment and Repair (4 cr)

Applications of basic auto sheet metal work, body shop power tools and welding equipment are introduced. Safety procedures and minor auto body repairs are emphasized. Prerequisite: Concurrent enrollment in ABF 113, 115, 116. (SCC)

#### ABF 115 – Basic Metal Straightening and Panel Alignment (4 cr)

Auto plastics and other body shop repairs are introduced. Major collision diagnosis, body alignment techniques and corrosion protection are emphasized. Prerequisite: Concurrent enrollment in ABF 113, 114, 116. (SCC)

#### ABF 116 – Introduction to Estimating and Parts Identification (4 cr)

Students learn to estimate major collision damage, auto body repair and finishing costs. Classifying body damage and parts identification are included. Prerequisite: Concurrent enrollment in ABF 113, 114, 115. (SCC)

#### ABF 117 – Automotive Collision MIG Welding (1 cr)

This course introduces students to the basic MIG skills required for success in the automotive collision and refinishing field. A variety of basic welding skills are introduced with emphasis on welding safety. (SCC)

#### ABF 123 – Introduction to Major Panel Replacement (5 cr)

Students learn the basic theory of major panel replacement. Alignment, replacement procedures and the use of plastics are emphasized. Prerequisite: Concurrent enrollment in ABF 124, 125, 126. (SCC)

#### ABF 124 – Introduction to Mechanical Components (3 cr)

Students are introduced to automobile body construction types and their common mechanical components. Areas of emphasis include energy absorbers, suspension and steering systems, and CV joints. Prerequisite: Concurrent enrollment in ABF 123, 125, 126. (SCC)

#### ABF 125 — Introduction to Major Unibody and Frame Repair (5 cr)

Students learn the basic theory and application of major unibody and frame repairs. Metalworking, glass replacement, fiberglass repair and universal measuring systems are emphasized. Prerequisite: Concurrent enrollment in ABF 123, 124, 126. (SCC)

#### ABF 126 - Fundamentals of Shop Procedures (3 cr)

Students learn practical applications found in typical body shops. Hydraulic equipment, corrosion proofing, welding and cost estimating are emphasized. Prerequisite: Concurrent enrollment in ABF 123, 124, 125. (SCC)

#### ABF 133 – Introduction to Industrial Safety and Hygiene (3 cr)

Students learn basic theory and techniques of industrial safety and hygiene. Personal safety and health practices, and safe operating procedures for shop equipment are emphasized. Prerequisite: Concurrent enrollment in ABF 134, 135, 136, 137. (SCC)

# ABF 134 – Introduction to Interior and Exterior Surface Preparation (4 cr)

Basic principles of interior and exterior surface preparation are introduced. Students analyze the components of primers, undercoats and topcoats. (SCC)

#### ABF 135 – Basic Polishing and Detailing (3 cr)

Students are introduced to polishing and detailing procedures. Washing, compounding and polishing, and interior and exterior detailing are emphasized. Prerequisite: Concurrent enrollment in ABF 133, 134, 136, 137. (SCC)

# ABF 136 — Introduction to Topcoat Systems and Application Procedures (3 cr)

Students are introduced to the basic principles of topcoat application with emphasis on the types of automotive topcoat systems and their application procedures. The development of skillful spraying techniques is introduced. Prerequisite: Concurrent enrollment in ABF 133, 134, 135, 137. (SCC)

# ABF 137 – Basic Color Matching and Paint Mixing Fundamentals (3 cr)

Students are introduced to the basic principles of color matching and paint mixing. Students practice color analysis and tinting. Prerequisite: Concurrent enrollment in ABF 133, 134, 135, 136. (SCC)

# ABF 220 — Welding (3 cr)

Students are introduced to MIG and Oxy/acetylene welding. Theory and application of metal inert gas welding; oxy/acetylene welding and hammer welding techniques are emphasized. Prerequisite: Admission to the program and concurrent enrollment in ABF 221, 222, 223. (SCC)

# ABF 221 - Sheet Metal Repair and Fabrication (4 cr)

This course introduces students to sheet metal repair and fabrication. Theory and application of sheet metal repair, metal fabrication and shaping are emphasized. Prerequisite: Admission to the program and concurrent enrollment in ABF 220, 222, 223. (SCC)

#### ABF 222 - Chassis and Suspension (3 cr)

This course offers chassis and suspension design, fabrication and modification techniques. Prerequisite: Admission to the program and concurrent enrollment in ABF 220, 221, 223. (SCC)

### ABF 223 - Body Assembly (2 cr)

Students learn the basic theory of body assembly, preparation and alignment techniques. Preparation and application of automotive substrate and top coat systems is emphasized. Prerequisite: Admission to the program and concurrent enrollment in ABF 220, 221, 222. (SCC)

#### ABF 243 – Advanced Unibody and Frame Alignment and Repair (6 cr)

Students learn a variety of advanced applications of auto sheet metal work, body shop power tools and welding equipment techniques. Prerequisite: Concurrent enrollment in ABF 244, 245. (SCC)

# ABF 244 — Advanced Metal Straightening and Panel Alignment Methods (5 cr)

Students practice advanced methods of metal straightening and panel alignment. Prerequisite: Concurrent enrollment in ABF 243, 245. (SCC)

# ABF 245 – Estimating Applications (5 cr)

Students focus on advanced estimating procedures and techniques for a variety of auto repairs. Prerequisite: Concurrent enrollment in ABF 243, 244. (SCC)

#### ABF 253 – Intermediate Major Panel Replacement Applications (6 cr)

This course continues with the concepts introduced in ABF 123 with emphasis on plastic welding, patching and rust repair. Prerequisite: Concurrent enrollment in ABF 254, 255. (SCC)

# ABF 254 – Intermediate Mechanical Components Applications (4 cr)

This course continues with the concepts introduced in ABF 124. Students practice diagnostic and repair techniques for energy absorbers, steering and cooling systems. Prerequisite: Concurrent enrollment in ABF 253, 255. (SCC)

# ABF 255 – Intermediate Major Unibody and Frame Methods (6 cr)

This course continues with the theory and application of major unibody and frame repair. Hydraulic equipment, various welding techniques and repair of miscellaneous automobile components are emphasized. Prerequisite: Concurrent enrollment in ABF 253, 254. (SCC)

# ABF 263 – Advanced Interior and Exterior Surface Preparation (4 cr)

This course offers practical applications of interior and exterior surface preparation. Surface defects, sanding techniques and primers are emphasized. Prerequisite: ABF 134, 135, 136, 137. (SCC)

# ABF 264 – Advanced Paint Application, Color Matching, and Paint Mixing (4 cr)

This course offers applications of detailing and polishing techniques. Carpet and engine cleaning are emphasized. Prerequisite: Concurrent enrollment in ABF 263, 265, 268. (SCC)

# ABF 265 — Materials and Cost Estimation (3 cr)

This course continues with the concepts introduced in ABF 245. Part prices, labor costs and refinishing time calculations are emphasized. Prerequisite: Concurrent enrollment in ABF 263, 264, 268. (SCC)

# ABF 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC) ABF 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### **ABF 268** — **Advanced Finessing, Compounding, and Detailing (5 cr)** This course emphasizes practical applications of color matching, paint mixing

and tinting procedures. Prerequisite: ABF 134, 135, 136, 137. (SCC)

#### ABF 288 – Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **AUTOMOTIVE MACHINIST**

## AUTMT 109 – Principles of Engine Operation (4 cr)

This course is an introduction to the fundamentals of engine operation with an emphasis on engine disassembly and assembly methods. (SCC)

# AUTMT 110 – Principles of Engine Operation and Identification (5 cr)

This course is an introduction to the fundamentals of engine operation and core identification with an emphasis on engine disassembly and assembly methods. (SCC)

## AUTMT 111 – Engine Disassembly Methods (4 cr)

Students learn practical applications in the disassembly of an engine. Identification of parts and the determination of remachinable core parts are emphasized. (SCC)

#### AUTMT 112 – Basic Machinery Operation (3 cr)

This course introduces students to machine operations such as connecting rod reconditioning and cylinder boring and honing. Safety requirements utilized while using precision measuring instruments are emphasized. (SCC)

# AUTMT 113 – Shop Safety and Hazardous Waste Management (2 cr)

This course introduces students to safety policy requirements and regulations as they apply to the automotive machine shop. State and federal standards and the shop environment are emphasized. (SCC)

# AUTMT 120 - Machinery Setup and Maintenance (4 cr)

This course introduces students to the installation methods and leveling, and procedures required in machinery setup. Maintenance methods and servicing schedules of a variety of equipment are presented. Prerequisite: AUTMT 110, 111, 112, 113. (SCC)

# AUTMT 121 – Machinery Setup and Maintenance Applications (8 cr)

Students learn practical applications in the installation, leveling and adjustment of machine shop equipment. Equipment servicing methods also are presented. Prerequisite: AUTMT 110, 111, 112, 113. (SCC)

# AUTMT 122 – Machinery Maintenance (3 cr)

This course introduces students to the installation methods and leveling, and procedures required in machinery setup. Maintenance methods and servicing schedules of a variety of equipment are presented. Prerequisite: AUTMT 110, 111, 112, 113. (SCC)

# AUTMT 130 – Principles of Air Flow (8 cr)

This course is an introduction to the theory of camshaft and cylinder head technology from early design to current combustion chambers. Camshaft terminology and applications are emphasized. Prerequisite: AUTMT 120, 121. (SCC)

#### AUTMT 131 – Air Flow Applications (2 cr)

This course offers practical applications utilizing computer programs to further understand the camshaft, port and combustion chamber principles. Prerequisite: AUTMT 120, 121. (SCC)

# AUTMT 132 – Camshaft and Cylinder Head Applications (8 cr)

This course offers practical applications in the testing and rebuilding of cylinder heads. Prerequisite: AUTMT 120, 121. (SCC)

#### AUTMT 133 – Engine Machining (4 cr)

This course introduces students to Engine Machining. Prerequisite: AUTMT 110, 111, 112, 113. (SCC)

#### AUTMT 134 – Engine Applications (8 cr)

This course introduces students to Engine Applications. Prerequisite: AUTMT 110, 111, 112, 113. (SCC)

#### AUTMT 135 - Machining & Business Math (4 cr)

This course introduces students to Machining Business Mathematics. Prerequisite: AUTMT 110, 111, 112, 113. (SCC)

#### AUTMT 180 - Automotive Machinist Equipment Specialization (2-5 cr)

This course is highly specialized for students currently employed or employed in the automotive machinist industry. Students receive additional training on equipment commonly used in the industry. Students learn to accurately and safely operate any of the following machines to factory authorized specifications: power hone, boring bar and stand, crankshaft

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regrinder, resurfacer, valve refacer, valve guide and seat head shop, lathes, cylinder hone, line bore and magnaflux. Credits are assigned at the rate of 1 credit for each 22 hours of supervised laboratory experience. (SCC)

### AUTMT 210 - Engine Construction (2 cr)

This course offers theory and practical applications of short block construction and internal components. Iron and aluminum castings, forged steel and aluminum parts, and design requirements are emphasized. Prerequisite: AUTMT 130, 131, 132 or permission of instructor. (SCC)

# AUTMT 211 - Engine Machining Theory I (6 cr)

This course is an introduction to the study and use of specifications manuals and computer programs as they relate to the automotive machine shop. The proper use of machine shop operations and equipment, equipment safety, and the correct procedures used to restore core parts to factory tolerance are emphasized. Prerequisite: AUTMT 130, 131, 132 or permission of instructor. (SCC)

# AUTMT 212 – Engine Machine Applications I (8 cr)

This course offers practical applications in the proper and safe use of automotive machine shop equipment such as rod reconditioners, boring bars and stands, power hones, resurfacers, head shop, valve refacers, seating equipment, pressure testers, and magnaflux. Prerequisite: AUTMT 130, 131, 132 or permission of instructor. (SCC)

# AUTMT 220 - Practical Math (2 cr)

This course is an introduction to practical math concepts and their relationship to automotive machine shop management and employees. Utilizing computer programs for math review; profit and loss, and markup and discount; compression ratios and work order calculations are emphasized. Prerequisite: AUTMT 210, 211, 212 or permission of instructor. (SCC)

# AUTMT 221 - Engine Machining Theory II (6 cr)

Students study machine shop operations and learn the proper use of equipment used to produce components that meet factory specifications. Prerequisite: AUTMT 210, 211, 212 or permission of instructor. (SCC)

# AUTMT 222 – Engine Machining Applications II (8 cr)

This course offers practical applications in the care and proper use of automotive machine shop equipment such as crankshaft regrinders, align bore machinery, engine balancers, CC burrets and engine cleaning equipment. Prerequisite: AUTMT 210, 211, 212 or permission of instructor. (SCC)

#### AUTMT 230 - Engine Assembly and Testing (3 cr)

Students are introduced to the theories and safe methods used to prepare the machined components for final assembly and testing of parts. Short and long block assembly including seals and sealing, and valve timing and adjustments are emphasized. Prerequisite: AUTMT 220, 221, 222 or permission of instructor. (SCC)

# AUTMT 231 - Engine Machining Theory III (6 cr)

Students study cylinder block principles including design, purpose, manufacturing processes and important features. Testing for ASE (Automotive Service Excellence) also is included. Prerequisite: AUTMT 220, 221, 222 or permission of instructor. (SCC)

# AUTMT 232 - Engine Machining Applications III (7 cr)

This course offers practical applications in the safe operation of machine shop equipment used to produce factory remanufactured engines. Engine assembly, installation, testing and break-in are emphasized. Prerequisite: AUTMT 220, 221, 222 or permission of instructor. (SCC)

# AUTMT 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

AUTMT 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### AUTMT 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **AUTOMOTIVE TECHNOLOGY**

# AUTO 102 - Introduction to Toyota (1 cr)

This course introduces students to Toyota T-TEN coursework. A brief overview of tire service, tools and equipment, lube service, Toyota information systems and the Toyota Dealership is presented. Prerequisite: Concurrent enrollment in AUTO 103. (SCC)

# AUTO 103 - Introduction to Toyota Lab (1 cr)

This course introduces students to the basic Toyota automotive tool system and testing equipment. Prerequisite: Concurrent enrollment in AUTO 102. (SCC)

# AUTO 104 – Toyota Internship (2 cr)

This course introduces students to the first portion of the Technician Portfolio and the on-the-job portion of this course. Prerequisite: Dealership qualifications apply and concurrent enrollment in AUTO 105. (SCC)

#### AUTO 105 – Toyota Electrical Systems I (3 cr)

This course introduces the student to the Toyota Electrical System and its electrical components. Prerequisite: Concurrent enrollment in AUTO 104. (SCC)

# AUTO 106 – Toyota Internship (1 cr)

This course continues the dealership training and TPORT work done as on-the-job training. Prerequisite: Concurrent enrollment in AUTO 105. (SCC)

## AUTO 107 – Toyota Electrical Circuitry Theories (5 cr)

The student will learn basic essential electronic concepts; circuits; batteries; starting systems and charging systems. Prerequisite: Concurrent enrollment in AUTO 106. (SCC)

# AUTO 111 – Theory of Brakes (3 cr)

This course is an introduction to the theory and operation of automotive brake systems, hydraulic systems and all types of brake systems. Prerequisite: Concurrent enrollment in AUTO 112. (SCC)

# AUTO 112 – Theory and Application of Brake Repair (4 cr)

This course provides practical shop experience in the application of the principles taught in AUTO 111. Areas of emphasis are hydraulic systems and brake systems. Prerequisite: Concurrent enrollment in AUTO 111. (SCC)

# AUTO 113 - Theory of Transmissions/Transaxles (3 cr)

This course provides an introduction to the theory and operation of automotive manual transmissions and transaxles, differential, drive line, and constant velocity joints. Prerequisite: Concurrent enrollment in AUTO 114. (SCC)

# AUTO 114 – Diagnosis of Transmissions/Transaxles (4 cr)

This course provides practical shop experience and application of transmissions and transaxles. Prerequisite: Concurrent enrollment in AUTO 113. (SCC)

#### AUTO 115 – Theory of Electronics and Accessories (4 cr)

This course introduces students to the theory of basic electrical concepts including Ohm's Law, magnetism, analog and digital meters, and test equipment. Electronics and electrical components also are introduced. Prerequisite: Concurrent enrollment in AUTO 116. (SCC)

#### AUTO 116 – Diagnosis of Electronics and Accessories (5 cr)

Practical shop experience in the testing of electrical circuits is offered in this course. Related test equipment such as test lamps, voltmeters, ammeters and ohmmeters is used to diagnose electrical problems. Prerequisite: Concurrent enrollment in AUTO 115. (SCC)

# AUTO 117 – Theory of Engine Performance (5 cr)

This course introduces students to the diagnosis and repair of automotive engines. Areas of emphasis includes ignition, fuel, exhaust and emissions control. Prerequisite: Concurrent enrollment in AUTO 118. (SCC)

# AUTO 118 – Diagnosis of Engine Performance (6 cr)

Students are introduced to practical shop experience in the diagnosis and repair of automotive engines. Ignition, fuel, exhaust and emissions control are emphasized. Prerequisite: Concurrent enrollment in AUTO 117. (SCC)

#### AUTO 119 – Theory of Air Conditioning (2 cr)

This course introduces students to the theory of automotive heating and air conditioning systems. (SCC)

# AUTO 120 – Air Conditioning Applications (3 cr)

This course provides students with practical shop experience in the diagnosis and repair of heating and air conditioning systems. Prerequisite: Concurrent enrollment in AUTO 119. (SCC)

# AUTO 121 — Principles of Engine Performance, Air Conditioning, and Electrical (4 cr)

Students learn advanced concepts introduced in AUTO 215 and 217. Theory and principles of computerized engine controls, automotive exhaust emissions, fuel injection and ignition systems are emphasized. Prerequisite: AUTO 215, 216, 217, 218 and concurrent enrollment in AUTO 122. (SCC)

# AUTO 122 – Engine Performance, Service, and Repair (5 cr)

Students learn advanced concepts introduced in AUTO 216 and 218. Theory and principles of computerized engine controls, automotive exhaust emissions, fuel injection and ignition systems are emphasized. Prerequisite: AUTO 215, 216, 217, 218 and concurrent enrollment in AUTO 121. (SCC)

# AUTO 123 – Toyota Engine Performance I (2 cr)

The student will learn the Basic techniques of diagnosis of automotive electronic control engines. Prerequisite: Concurrent enrollment in AUTO 106, 107. (SCC)

# AUTO 124 – Toyota Engine Performance I Lab (4 cr)

This basic course includes component idea, troubleshooting and diagnosing. Prerequisite: Concurrent enrollment in AUTO 123. (SCC)

# See program/course abbreviation key on page 143.

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This course enables the student to understand engine operation, cleaning and safety operations. It includes the US and Metric system and troubleshooting and diagnosing. Prerequisite: Concurrent enrollment in AUTO 124. (SCC)

#### AUTO 126 - Toyota Engine Repair Lab (4 cr)

This course enables the student to remove, reinstall, teardown, overhaul, diagnosis of engine operation, service and repair. Prerequisite: Concurrent enrollment in AUTO 125. (SCC)

#### AUTO 127 - Toyota Electrical Systems II (1 cr)

This advanced course continues studies of the Toyota Electrical System, computer controlled circuits, wiring diagram reading, and its electrical components. Prerequisite: Concurrent enrollment in AUTO 126. (SCC)

#### AUTO 128 - Toyota Electrical Systems II Lab (1 cr)

This advanced course focuses on the electronic concepts, circuits, Troubleshootings, wiring diagram reading, and electronic computer systems. Prerequisite: Concurrent enrollment in AUTO 127. (SCC)

#### AUTO 129 – Principles of Automatic Transmissions (4 cr)

Principles of steering systems, including four-wheel alignment, late model transmissions, transaxles and sub-assemblies are emphasized. Prerequisite: Concurrent enrollment in AUTO 130. (SCC)

#### AUTO 130 – Service and Repair of Automatic Transmissions (5 cr)

This course emphasizes application of principles presented in AUTO 129. Content areas include all types of steering systems, including four-wheel alignments; late model transmissions, transaxles and sub-assemblies. Pre-requisite: Concurrent enrollment in AUTO 129. (SCC)

#### AUTO 131 - Principles of Suspension Systems (4 cr)

This course introduces students to the basic principles of steering and suspension systems including MacPherson struts and four-wheel alignment. Prerequisite: Concurrent enrollment in AUTO 132. (SCC)

#### AUTO 132 - Service and Repair of Suspension Systems (5 cr)

This course introduces students to the practical applications of steering and suspension systems including MacPherson struts and four-wheel alignment. Prerequisite: Concurrent enrollment in AUTO 131. (SCC)

#### AUTO 201 – Toyota Brakes (3 cr)

Students learn to identify, describe the purpose, types of applications, and operation methods pertaining to automobile brake systems. Prerequisite: Concurrent enrollment in AUTO 128. (SCC)

# AUTO 202 – Toyota Brakes Lab (3 cr)

This course introduces students to Toyota T-TEN coursework. A brief overview of tire service, tools and measurements, lube service, Toyota information systems, and electrical theory and circuitry is presented. Prerequisite: Concurrent enrollment in AUTO 201. (SCC)

# AUTO 203 – Toyota Steering and Suspension (3 cr)

This course includes instruction on the service and repair of all types of steering and suspension systems. Prerequisite: Concurrent enrollment in AUTO 202. (SCC)

#### AUTO 204 – Toyota Steering and Suspension Lab (3 cr)

This course includes instruction on the service and repair of all types of Steering and Suspension systems. Prerequisite: Concurrent enrollment in AUTO 203. (SCC)

#### AUTO 205 – Toyota Internship (5 cr)

This course continues the work involving TPORT with the Toyota dealer and the student technician. Prerequisite: Concurrent enrollment in AUTO 204. (SCC)

#### AUTO 206 – Theory of Engine Performance (3 cr)

The student will learn to identify the components of the standard Toyota engine. The function of the engine and its components and operation will also be explored. (SCC)

#### AUTO 207 – Toyota Engine Performance II (2 cr)

This course includes instruction on identifying the components of the standard Toyota engine. It explains the function of engine components and includes advanced shop application. Prerequisite: Concurrent enrollment in AUTO 205. (SCC)

#### AUTO 208 - Toyota Engine Performance II Lab (3 cr)

This course includes instruction on identifying, servicing and repairing the Toyota engine performance concerns. Prerequisite: Concurrent enrollment in AUTO 207. (SCC)

#### AUTO 209 – Toyota Internship (12 cr)

This continues the internship with the dealership using TPORT. Prerequisite: Concurrent enrollment in AUTO 208. (SCC)

#### See program/course abbreviation key on page 143.

# AUTO 211 – Theory of Engines (8 cr)

This course is an introduction to the theory and operation of fundamentals of engine diagnosis, cylinder heads, valve trains, engine blocks, lubrication and cooling systems. Prerequisite: AUTO 111 and concurrent enrollment in AUTO 212. (SCC)

#### AUTO 212 – Theory and Application of Engine Repair (8 cr)

This course provides practical shop experience in engine repair including engine diagnosis, cylinder head inspection, valve trains, engine blocks, lubrication and cooling fundamentals. Prerequisite: AUTO 112 and concurrent enrollment in AUTO 211. (SCC)

#### AUTO 215 – Advanced Theory of Electronics and Accessories (3 cr)

Students learn the practical application of Ohm's Law, analog and digital meters, and test equipment. Hookup and testing of electronics and electrical components are presented. Prerequisite: AUTO 115, 116 and concurrent enrollment in AUTO 216. (SCC)

#### AUTO 216 – Advanced Diagnosis of Electronics and Accessories (4 cr)

Students obtain practical shop experience in the repair and replacement of electrical circuits. Related test equipment such as test lamps, voltmeters, ammeters, lab scopes and ohmmeters is used to diagnose electrical problems. Prerequisite: AUTO 115, 116 and concurrent enrollment in AUTO 215. (SCC)

#### AUTO 217 – Principles of Automatic Transmissions (4 cr)

Students will learn about the principles of Automatic Transmissions system. Diagnosing problems and repair methods will be explored. Prerequisite: Concurrent enrollment in AUTO 209. (SCC)

### AUTO 218 – Service and Repair of Automatic Transmissions (5 cr)

Students will become familiar with the service and repair of transmissions and transaxles, differential, drive line, and constant velocity joints. Prerequisite: Concurrent enrollment in AUTO 217. (SCC)

#### AUTO 219 – Toyota Hybrid Technology (2 cr)

Students explore the purpose, types of applications, and operation methods pertaining to hybrid service and repair. Prerequisite: Concurrent enrollment in AUTO 218. (SCC)

# AUTO 221 – Advanced Principles of Engine Performance, Air Conditioning, and Electrical (3 cr)

Students are offered advanced shop experience introduced in AUTO 121. The application of principles of computerized engine controls, automotive exhaust emissions, fuel injection and ignition systems is emphasized. Pre-requisite: AUTO 121 and concurrent enrollment in AUTO 222. (SCC)

# **AUTO 222** – Advanced Engine Performance, Service, and Repair (4 cr) Students learn advanced concepts introduced in AUTO 122 with shop ex-

perience in special problems of principles of computerized engine controls, automotive exhaust emissions, fuel injection and ignition systems. Prerequisite: AUTO 121, 122 and concurrent enrollment in AUTO 221. (SCC)

# AUTO 223 – Theory of Transmissions (3 cr)

This course includes advanced knowledge of the purpose, types of applications, and operation methods pertaining to all types of transmissions and transaxles, and suspension systems. Prerequisite: Concurrent enrollment in AUTO 219. (SCC)

#### AUTO 224 – Diagnosis of Transmissions (4 cr)

This advanced course includes further knowledge about the purpose, types of application, and operation methods pertaining to all types of transmissions and transaxles and suspension systems. Prerequisite: Concurrent enrollment in AUTO 223. (SCC)

#### AUTO 225 – Toyota Heating and Air Conditioning (2 cr)

Advanced knowledge of the refrigeration process, AC systems, ATC systems diagnosing and repairing all systems are explored in this course. Prerequisite: Concurrent enrollment in AUTO 224. (SCC)

#### AUTO 226 – Toyota Heating and Air Conditioning Lab (3 cr)

This course includes in-depth knowledge of advanced knowledge of the repair and service of the refrigeration process, AC systems, ATC systems diagnosis and repair of all systems explored in this course. Prerequisite: Concurrent enrollment in AUTO 225. (SCC)

# AUTO 227 – Theory of Hybrids (5 cr)

This course introduces students to the diagnosis and repair of electric vehicles. Areas of emphasis include alternative fuels, hybrid vehicles, batteries, and safety precautions. Prerequisite: AUTO 111, 112, 113, 114, 115, 116, 117-120, 129, 130, 131, 132, 215, 216 or ASE Certifications and concurrent enrollment in AUTO 228. (SCC)

#### AUTO 228 – Diagnosis of Hybrids (6 cr)

Students are introduced to practical shop experience in the diagnosis and repair of hybrid vehicles. Regenerative brake systems, hybrid vehicle transmissions and transaxles, and various manufacturers' vehicle type controls are emphasized. Prerequisite: AUTO 227 or permission of instructor and concurrent enrollment in AUTO 227. (SCC)

# AUTO 229 - Alternative Fuels (3 cr)

This course introduces students to the theory of alternative fuel systems and fuel cells. Prerequisite: AUTO 227 or permission of instructor. (SCC)

# AUTO 230 - Safety Procedures for Hybrids (2 cr)

This course provides students with theory and practical shop experience in the safety procedures used when working on hybrid vehicles. Prerequisite: AUTO 227 or permission of instructor and concurrent enrollment in AUTO 229. (SCC)

# AUTO 235 - Engine Performance - Toyota T-TEN (16 cr)

Information in this course includes an introduction to electrical circuit diagnosis with emphasis on electrical terminology, circuit concepts, and diagnostic techniques used to repair starting and charging systems. Course content is limited to the Toyota T-TEN (Technical Educational Network) instructional program. (SCC)

## AUTO 236 - Toyota Internship (7 cr)

This is the final internship the student will have with the dealer to complete the Toyota T-TEN program. Prerequisite: Concurrent enrollment in AUTO 226. (SCC)

#### AUTO 240 – Heating and Air Conditioning - Toyota T-TEN (16 cr)

Information in this course includes an introduction to the diagnosis and repair of air conditioning and automatic temperature control systems. Course content is limited to the Toyota T-TEN (Technical Education Network) instructional program. (SCC)

# AUTO 241 – Manual/Automatic Transmissions - Toyota T-TEN (16 cr)

Information presented in this course includes the study of both automatic and manual transmissions in front and rear wheel drive vehicles. Practical applications include the diagnosis and repair of the transmission system including clutches, transmissions, transaxles and transfer cases. Course content is limited to the Toyota T-TEN (Technical Education Network) instructional program. (SCC)

# AUTO 250 - Automotive Service Writer (16 cr)

Theory and practical shop experience is the responsibility of the service writer employed in an automotive dealership or an independent service center. Sales and service techniques and the daily operational procedures practiced in automotive service centers is emphasized. Prerequisite: Permission of instructor. (SCC)

#### AUTO 252 - Engines - Toyota T-TEN (16 cr)

This course introduces the theory and operation of engine fundamentals including cylinder heads, valve trains, engine blocks, and lubrication and cooling systems. Practical applications include the removal, disassembly and inspection of the car engine. Course content is limited to the Toyota T-TEN (Technical Education Network) instructional program. (SCC)

# AUTO 262 - Suspension, Brakes and ABS - Toyota T-TEN (16 cr)

This course introduces students to the theory and operation of all types of brake systems, suspension systems including MacPherson struts, shortand long-arm systems, and rear suspension systems. Course content is limited to the Toyota T-TEN (Technical Education Network) instructional program. (SCC)

AUTO 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# AUTO 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# AUTO 270 – High Performance Engines (16 cr)

This course is designed for students interested in expanding their knowledge after completion of their A.A.S. degree in Automotive Technology. Special needs and skills required to work on high performance engines are emphasized. Prerequisite: A.A.S. degree in Automotive Technology or ASE Masters degree. (SCC)

#### AUTO 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# AVIATION MAINTENANCE TECHNOLOGY

ARCFT 115 – Introduction to General Aircraft Maintenance (1-5 cr) This course introduces students to the basic concepts of airframe and powerplant mechanics including the use of tools and equipment, basic mechanics techniques, materials, and processes. FAA regulations, weight and balance control, basic electrical systems and instrumentation are emphasized. Prerequisite: Concurrent enrollment in ARCFT 116. (SCC)

# ARCFT 116 – Introduction to General Aircraft Maintenance Shop (1-4 cr)

Students learn practical applications to basic aerodynamics and the use of tools and equipment. Basic mechanics techniques, materials and processes are emphasized. FAA regulations, weight and balance control, basic electrical systems, and instrumentation are covered. Prerequisite: Concurrent enrollment in ARCFT 115. (SCC)

# ARCFT 117 – General Aircraft Maintenance (1-5 cr)

Students learn advanced concepts of ARCFT 115 including the use of tools and equipment, basic mechanics techniques, materials and processes. FAA regulations, weight and balance control, basic electrical systems, and instrumentation are emphasized. Prerequisite: ARCFT 115. (SCC)

# ARCFT 118 — General Aircraft Maintenance Shop (1-4 cr)

Students learn advanced applications to aerodynamics and the use of tools and equipment. Advanced mechanics techniques, materials and processes are emphasized. FAA regulations, weight and balance control, electrical systems, and instrumentation applications are offered. Prerequisite: ARCFT 116 and concurrent enrollment in ARCFT 117. (SCC)

# ARCFT 119 – Advanced General Aircraft Maintenance (1-5 cr)

Students are introduced to advanced concepts offered in ARCFT 117. The use of tools and equipment, basic mechanics techniques, materials, and processes are emphasized. A review of FAA regulations, weight and balance control, advanced electrical systems, and instrumentation concepts are presented. Prerequisite: ARCFT 117 and concurrent enrollment in ARCFT 120. (SCC)

# ARCFT 120 – Advanced General Aircraft Maintenance Shop (1-4 cr)

Students apply advanced knowledge of aerodynamics and use of tools and equipment. Advanced mechanics techniques, materials and processes are emphasized. A review of FAA regulations, weight and balance control, electrical systems, and instrumentation applications are offered. Prerequisite: ARCFT 118 and concurrent enrollment in ARCFT 119. (SCC)

# ARCFT 135 – Basic Airframe Maintenance (1-5 cr)

This course introduces students to basic aerodynamics, woodworking, aircraft fabric finishing, and aircraft sheet metal and welding. Prerequisite: ARCFT 119 and concurrent enrollment in ARCFT 136. (SCC)

# ARCFT 136 — Basic Airframe Maintenance Shop (1-5 cr)

Students apply their skills in woodworking, aircraft fabric and finishing, and aircraft sheet metal and welding. Prerequisite: ARCFT 120 and concurrent enrollment in ARCFT 135. (SCC)

# ARCFT 137 – Airframe Structures (1-5 cr)

This course presents concepts in aircraft sheet metal, aircraft assembly and disassembly, and rigging. Prerequisite: ARCFT 135 and concurrent enrollment in ARCFT 138. (SCC)

## ARCFT 138 – Airframe Structures Shop (1-5 cr)

Students apply their knowledge in aircraft sheet metal, aircraft assembly and disassembly, controls and control surfaces, and rigging. Prerequisite: ARCFT 136 and concurrent enrollment in ARCFT 137. (SCC)

# ARCFT 139 – Airframe Systems (1-5 cr)

Students are introduced to aircraft airframe 100-hour and annual inspections, aircraft landing gear systems, and hydraulic and pneumatic systems. Prerequisite: ARCFT 137 and concurrent enrollment in ARCFT 140. (SCC)

#### ARCFT 140 — Airframe Systems Shop (1-5 cr)

Students prepare for aircraft airframe 100-hour and annual inspections, aircraft landing gear systems, and hydraulic and pneumatic systems. Prerequisite: ARCFT 138 and concurrent enrollment in ARCFT 139. (SCC)

# ARCFT 235 – Advanced Airframe Systems (1-5 cr)

Students learn various types of aircraft systems including instrument and electrical, navigation and communication, and position and warning classifications. Prerequisite: ARCFT 139 and concurrent enrollment in ARCFT 236. (SCC)

#### ARCFT 236 – Advanced Airframe Systems Shop (1-5 cr)

This course emphasizes the applications of various aircraft systems including instrument and electrical, navigation and communication, and position and warning systems. Prerequisite: ARCFT 140 and concurrent enrollment in ARCFT 235. (SCC)

# ARCFT 237 – Integrated Airframe Powerplant Maintenance (1-5 cr)

This course includes theory and practice of integrated aircraft inspections, ice and rain control systems, and fire protection systems. Prerequisite: ARCFT 235 and concurrent enrollment in ARCFT 238. (SCC)

# ARCFT 238 — Integrated Airframe Powerplant Maintenance Shop (1-5 cr)

Students apply their skills in the practice of integrated aircraft inspections, ice and rain control systems, and fire protection systems. Prerequisite: ARCFT 236 and concurrent enrollment in ARCFT 237. (SCC)

# ARCFT 245 - Aircraft Engines I (1-5 cr)

This course addresses theoretical and practical instruction in aircraft engine theory as well as maintenance and inspection. Prerequisite: ARCFT 119 and concurrent enrollment in ARCFT 246. (SCC)

# ARCFT 246 – Aircraft Engines Shop I (1-5 cr)

Students apply the theories learned in ARCFT 245 with shop practice in theoretical and practical maintenance as well as servicing and inspecting aircraft engines. Prerequisite: ARCFT 120 and concurrent enrollment in ARCFT 245. (SCC)

# ARCFT 247 — Aircraft Engines II (1-5 cr)

This course addresses theoretical and practical instruction in aircraft engine overhauls, maintenance, operation and inspections. Prerequisite: ARCFT 245 and concurrent enrollment in ARCFT 248. (SCC)

# ARCFT 248 - Aircraft Engines Shop II (1-5 cr)

Students apply the theories learned in ARCFT 247 with shop practice in practical maintenance as well as servicing and inspecting aircraft engine overhauls, maintenance, operation and inspections. Prerequisite: ARCFT 246 and concurrent enrollment in ARCFT 247. (SCC)

# ARCFT 255 - Powerplant Systems and Components I (1-5 cr)

This course offers practical and theoretical instruction in auxiliary powerplants; unducted fans; engine fire protection systems; lubrication systems; fuel and fuel metering systems; and engine electrical, ignition and starting systems. Prerequisite: ARCFT 247 and concurrent enrollment in ARCFT 256. (SCC)

#### ARCFT 256 - Powerplant Systems and Components I Shop (1-5 cr)

This course offers practical shop experience in powerplant systems including auxiliary powerplants; and fire, lubrication, fuel and electrical systems. Prerequisite: ARCFT 248 and concurrent enrollment in ARCFT 255. (SCC)

# ARCFT 257 – Powerplant Systems and Components II (1-5 cr)

This course offers theory on propellers as well as powerplant airflow and cooling exhaust systems. Prerequisite: ARCFT 255 and concurrent enrollment in ARCFT 258. (SCC)

# ARCFT 258 – Powerplant Systems and Components II Shop (1-5 cr)

This course offers practical shop experience in propeller maintenance as well as powerplant cooling and exhaust systems. Prerequisite: ARCFT 256 and concurrent enrollment in ARCFT 257. (SCC)

# ARCFT 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### **ARCFT 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SCC)

ARCFT 275 — Theory and Review - Airframe or Powerplant (1-10 cr)

# This class provides students with additional time to meet Federal Aviation Administration (FAA) requirements. Grade option: Pass/fail. Prerequisite: Completion of all six quarters of ARCFT courses. (SCC)

# ARCFT 276 — Airframe or Powerplant Shop (1-10 cr)

This class provides students with additional lab time to meet Federal Aviation Administration (FAA) requirements. Grading option: Pass/fail. Prerequisite: Completion of all six quarters of ARCFT courses. (SCC)

# **AVIATION/AIRWAY SCIENCE**

# AIRSC 102 – Introduction to Aviation (6 cr)

This course includes the student's first exposure to aerodynamics of flight. It serves as a preparation for the private pilot written, oral and flight test required by the FAA for issuance of a private pilot certificate. Course content includes instruction in FAA regulations, weather, air and radio navigation, flight safety, and emergency procedures. Prerequisite: College-level reading and writing scores, MATH 091 or appropriate placement score and concurrent enrollment in AIRSC 110. (SFCC)

# AIRSC 103 – Introduction to Meteorology (6 cr)

This course provides an introduction to meteorological principals such as precipitation, temperature, cloud types, humidity, latent heat, pressure, gas laws, wind, radiation and refraction. Prerequisite: Permission of instructor. (SFCC)

# See program/course abbreviation key on page 143.

# AIRSC 110 – Private Flight Lab (1 cr)

This course serves as a preparation for the practical test in issuance of a private pilot certificate that is taken on the completion of the AIRSC 120. Course content includes ground and flight instruction in the maneuvers and procedures prescribed in the FAA practical test standards booklet. Prerequisite: Concurrent enrollment in AIRSC 102. (SFCC)

# AIRSC 120 – Private Flight Lab II (1 cr)

This course serves as a preparation for the practical test in issuance of a private pilot certificate that is taken on the completion of this flight course. Course content includes ground and flight instruction in the maneuvers and procedures prescribed in the FAA practical test standards booklet. Prerequisite: AIRSC 110 and concurrent enrollment in AIRSC 121. (SFCC)

# AIRSC 121 – Basic Attitude Instrument Flying (3 cr)

This course includes an in-depth study of basic attitude instrument flying. In addition, the operation, interpretation and practical use of VOR, ADF, DME, RNAV, RMI, HIS, and Flight Director systems are studied. The course also includes the different types of instrument charts required for IFR flight. Pre-requisite: AIRSC 102 and concurrent enrollment in AIRSC 150. (SFCC)

#### AIRSC 122 – IFR Regulations and Procedures (3 cr)

This course provides a detailed study of the regulations, procedures and publications necessary for operating IFR in the national airspace system. Terminal and en route procedures also are studied in detail. Prerequisite: AIRSC 121 and concurrent enrollment in AIRSC 250. (SFCC)

#### AIRSC 150 – Commercial Flight Lab I (2 cr)

This course includes an in-depth practical study of basic attitude instrument flying and developing the student's cross-country skills to a commercial pilot standard prescribed in the commercial FAA practical test standards booklet. Prerequisite: AIRSC 102 and concurrent enrollment in AIRSC 121. (SFCC)

# AIRSC 203 – Aviation Meteorology (5 cr)

This course studies weather information as related to aviation, such as basic weather, reading/interpreting charts, texts, observations and forecasts. This course also includes Aeronautical Decision Making, application of information to decision process and aviation weather hazards. Prerequisite: AIRSC 103. (SFCC)

#### AIRSC 223 – Aerodynamics-Airplanes (3 cr)

This course provides a study of aerodynamics, performance, stability, control, weight and balance, and special flight conditions as appropriate for commercial pilots. A discussion of commercial maneuvers and flight computers also is included. Prerequisite: AIRSC 122 and concurrent enrollment in AIRSC 224, 260. (SFCC)

# AIRSC 224 – Aircraft Systems and Instruments (3 cr)

This course provides an in-depth study of flight instruments. Reciprocating engine, propeller, electrical, environmental, hydraulic, pneumatic, fuel, ignition, lubrication and pressurization systems also are studied. Prerequisite: AIRSC 250 and concurrent enrollment in AIRSC 223. (SFCC)

# AIRSC 225 – Multiengine Systems and Procedures (3 cr)

This course covers the operations necessary to operate light twin-engine aircraft. Normal and abnormal procedures are included along with a discussion of the systems and aerodynamics normally associated with these aircraft. Regulations for commercial pilots also are included. Prerequisite: AIRSC 224 and concurrent enrollment in AIRSC 270. (SFCC)

#### AIRSC 250 - Commercial Flight Lab II (2 cr)

This flight course provides detailed flight experience for the practical use of regulations and procedures necessary to fly safely in IFR conditions. Prerequisite: AIRSC 150 and concurrent enrollment in AIRSC 122. (SFCC)

# AIRSC 260 - Commercial Flight Lab III (2 cr)

This flight course provides the flight experience required to possess the flight skills of a commercial pilot prescribed by the FAA practical test standards. Prerequisite: AIRSC 250 and concurrent enrollment in AIRSC 223. (SFCC)

#### AIRSC 270 – Multiengine Flight Lab (2 cr)

This flight course provides the student with the commercial and instrument skills in the multiengine aircraft required by the FAA practical test standards booklet. Prerequisite: AIRSC 260 and concurrent enrollment in AIRSC 225. (SFCC)

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# BAKING: PROFESSIONAL PASTRIES AND SPECIALTY CAKES

# BAK 101 - Introduction to Baking and Pastries (1 cr)

Students learn terminology of basic baking and methods such as ingredient identification, volume, weights and measurements, and mixing types. (SCC)

#### BAK 110 - Artisan Breads (5 cr)

Students learn to create hand-crafted, preservative-free breads with natural starters, long-fermentation periods and use of sponges and sour starters. (SCC)

## BAK 111 – Pastries (7 cr)

Students learn to produce a variety of yeast breads including Danish, cinnamon rolls, coffee cakes, croissants, artisan and specialty pastries. (SCC)

# BAK 120 – Special Occasion Cakes (2 cr)

This course introduces students to techniques needed to produce birthday, wedding and anniversary cakes. (SCC)

# BAK 121 - Tortes and Gateau (2.5 cr)

Students learn to produce a variety of European style torts and gateau, bakery style cakes, and sculptured and wedding cakes. (SCC)

# BAK 130 - Sculptured Cakes (2.5 cr)

Students learn advanced techniques in producing sculptured, hand-crafted specialty occasion cakes. (SCC)

# BAK 131 - Rolled Fondant (2.5 cr)

This course emphasizes the development of advanced techniques in European rolled fondants. (SCC)

#### BAK 140 – Yeast Doughs (1 cr)

This course introduces students to a variety of mixing methods used to create yeast doughs and breads. (SCC)

# BAK 248 – Wedding Cakes (2.5 cr)

Students learn advanced techniques in decorating artistic wedding cakes. (SCC)

# BAK 250 – Advanced Cake Decorating Production (10 cr)

Students use advanced techniques to create, design and decorate wedding and other specialty cakes. Prerequisite: BAK 120, 121, 130, 131, 248 or permission of instructor. (SCC)

#### BAK 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# BAK 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### BAK 288 – Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# BIOLOGY

# BIOL 100 - Environmental Biology (5 cr)

This course is the study of man in his environment for nonscience majors and vocational program students. Biological concepts presented in this course include energy production and utilization, waste generation and disposal, population growth and control, and ecosystem construction and destruction. How these concepts are influenced by human activities is emphasized. This course meets A.A. lab science requirements. (SCC, SFCC)

# BIOL 110 - Insects and People (5 cr)

This course is a systematic approach to study insect interactions with one another, their physical and chemical environments, and with people. The course includes competition within and between populations and extends through communities, ecosystems and the biosphere with emphasis on interactions among insects and humans. (SFCC)

#### BIOL 115 - Biology for Elementary Education (5 cr)

This course Introduces cellular, organismal, and ecosystem biology, including human systems, for students majoring in elementary education. Inquiry based biological investigations that support science instruction outlined in the National Science Education Standards and Washington Essential Academic Learning Requirements are emphasized. Prerequisite: Permission of instructor. (SCC)

# BIOL 120 – Scientific Investigation (5 cr)

This course introduces students to laboratory investigation. Scientific method, observation and maintaining a scientific notebook are presented. A brief history of science, the nature of matter, tests of validity and statistical methods, and the role of scientists in society are emphasized. Laboratory exercises include measurement and the metric system, light absorbency and spectrophotometry, charge attraction and repulsion, and working with living organisms, including the use of microscopes also are presented. A term paper with two or more revisions is required. (SCC)

#### BIOL 140 – Medical Sciences Vocabulary (1 cr)

A programmed course which teaches the meanings of 300 Latin and Greek word elements used in developing up to 10,000 complex anatomical and medical terms. (SFCC)

#### BIOL& 160 – General Biology w/Lab (5 cr)

An integrated view of the living world including the nature of sciences, evolution of biological organization, composition and organization of living substances, metabolism, control, reproduction, heredity and ecological relationships. (SCC, SFCC)

# BIOL& 221 - Majors Ecology/Evolution: w/Lab (5 cr)

Intended for students majoring in life sciences, this course provides an introduction to ecology and evolution. Topics cover the origin, evolution, and characteristics of living things and the processes that influence them. Prerequisite: BIOL& 222. (SCC, SFCC)

# BIOL& 222 – Majors Cell/Molecular: w/Lab (5 cr)

Intended for students majoring in life sciences, this course provides an introduction to cellular and molecular biology. Topics include cells, cellular respiration, photosynthesis, the cell cycle and genetics. It also fulfills introductory biology requirement for the health sciences. A prior course in chemistry is highly recommended. (SCC, SFCC)

# BIOL& 223 – Majors Organismal Phys: w/Lab (5 cr)

Intended for students majoring in life sciences, this course explores how plants and animals work. Topics covered include development, transport, nutrition, osmoregulation, sensory systems, and reproduction. Prerequisite: BIOL& 222. (SCC, SFCC)

# BIOL 237 - Introduction to Immunology (5 cr)

This course focuses on human immune response, antibodies, receptors and immunochemical techniques. The nature of primary interaction with antigens is explored, as well as the origin of immune diversity. Topics include innate vs. acquired immune responses, hypersensitivity, transplantation, immunodeficiency and autoimmune disorders. (SCC)

#### BIOL& 241 – Human A & P 1 (5 cr)

Human body structure and function with emphasis on introductory cytology and histology; the skeletal, muscular and nervous systems; and the sense organs. Prerequisite: BIOL& 160 or permission of instructor. (SCC, SFCC)

# BIOL& 242 - Human A & P 2 (5 cr)

Continued study of human body structure and function with emphasis on circulatory, respiratory, digestive, urinary, endocrine and reproductive systems. Prerequisite: BIOL& 241. (SCC, SFCC)

#### BIOL 244 - Genetics (5 cr)

This course introduces basic principles of inheritance, the significance of the cell cycle events to variation, genetic links to physical traits, mutations, DNA repair, gene analysis and linkage. Applications and molecular techniques such as DNA sequencing, cloning, genomics and proteomics are introduced. Classical experimental methods and findings are examined in detail. Problem-solving skills that require logic and mathematical understanding are emphasized. Prerequisite: BIOL& 160 or BIOL& 222. (SCC, SFCC)

# BIOL& 260 – Microbiology (5 cr)

Introduction to the study of bacteria, viruses, rickettsiae, spirochetes, fungi and protozoa with emphasis on microbial structure, physiology, genetics, physical and chemical control, and the role of microorganisms in disease and immunology. Laboratory includes staining, media making, isolation, cultivation and identification techniques of bacteria. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160, CHEM 101 recommended. (SCC, SFCC)

# **BIOMEDICAL EQUIPMENT TECHNICIAN**

# BIOEQ 199 — Medical Terminology for Biomedical Equipment Technology (2 cr)

This course presents a study of basic medical terminology for students interested in the field of biomedical equipment technology. Prefixes, suffixes, word roots, combining forms, special endings, plural forms and abbreviations are included in the content. A programmed learning, word building system is used to learn word parts that are used to construct or analyze new terms. Definitions, word usage and pronunciation are emphasized. Prerequisite: Permission of the instructor and enrollment in the biomedical equipment technician program. (SCC)

### BIOEQ 241 – Biomedical Circuits and Devices (7 cr)

Students continue to learn electronics fundamentals. Individual circuits using such devices as EETs, UJTs, SCRs, and Linear ICs with emphasis on amplifiers and switching circuits. All circuits presented are directly related to the applications used within biomedical equipment. Prerequisite: ELECT 131, 132 and permission of instructor and concurrent enrollment in BIOEQ 243. (SCC)

#### BIOEQ 242 – Physiology for Biomedical Equipment Technology (3 cr)

Students learn the underlying physiological principles with which medical equipment is designed to interface. A specific level of understanding is expected of students, with emphasis on the cells and the nervous, muscular, circulatory and respiratory systems. (SCC)

# BIOEQ 243 - Biomedical Circuit Laboratory (6 cr)

Students receive hands-on experience with the circuits learned in BIOEQ 242, which reinforces the concepts presented. Prerequisite: ELECT 131, 132 and concurrent enrollment in BIOEQ 241. (SCC)

# BIOEQ 251 — Biomedical Instrumentation Patient Monitoring and Clinical (10 cr)

Students learn the operation of several biomedical instruments by thorough analysis of electronic circuitry. These instruments are directly related to patient monitoring and clinical applications. Prerequisite: BIOEQ 241 and concurrent enrollment in BIOEQ 252. (SCC)

# BIOEQ 252 – Biomedical Instrumentation Laboratory (6 cr)

Students receive hands-on experience with circuits and equipment discussed in BIOEQ 251. Prerequisite: Concurrent enrollment in BIOEQ 251. (SCC)

# BIOEQ 261 – General Medical Instrumentation (5 cr)

Students learn to operate several medical instruments. The principles of operation, calibration and typical problems are emphasized. (SCC)

#### BIOEQ 262 - Hospital and Patient Safety (2 cr)

Students learn to solve specific problems through case studies. Risk management, liability and safety programs are evaluated with emphasis on electrical safety. The use of safety standards and codes are presented. Prerequisite: Sixth-quarter biomedical equipment technician students only. (SCC)

#### **BIOEQ 263 – Introduction to Digital Electronics (14 cr)**

This course is designed to give a systematic approach to the analysis of digital circuitry with applications specifically related to medical equipment. Laboratory projects provide hands-on reinforcement of concepts presented. Microprocessor, memory systems and microcontrollers will be studied. Prerequisite: BIOEQ 241. (SCC)

# BIOEQ 271 — Biomedical Equipment Technology Clinical Rotation (10 cr)

Students are assigned to specific healthcare facilities and apply their knowledge to develop additional skills which enhance their understanding of healthcare environments. Their learning experience is strengthened by functioning within those environments. Prerequisite: BIOEQ 242, 251, 252 and concurrent enrollment in BIOEQ 272. (SCC)

## BIOEQ 272 – Biomedical Seminar (4 cr)

Students discuss technical problems, ethics, safety concerns and other situations that may develop during clinical rotation. Students are assisted with the final draft of their resumes. Prerequisite: BIOEQ 242, 251, 252 and concurrent enrollment in BIOEQ 271. (SCC)

# BIOTECHNOLOGY

# BIOTC 120 - Cell Culture Techniques (5 cr)

This course introduces students to aseptic techniques for working with microbiological cultures and mammalian cells. Lecture topics include the origins and maintenance of commonly used cell lines, considerations for working with potentially hazardous cultures, basic requirements for cell cultures, types of selective and specialized media, basic concepts of mammalian cell fermentation, large-scale fermentation, and an introduction to downstream processing of biologics. (SCC)

#### BIOTC 122 - Good Manufacturing Practices (1 cr)

This course explores the regulations which govern the production of drugs, biologics and devices for human use. This is of increasing importance in the biotechnology industry since the US Food and Drug Administration has generally required that products which are eventually used for human diagnostics or treatment must be developed in a GMP environment. Basic concepts of GMP are discussed as well as in-depth exploration of specific regulatory compliance topics such as record keeping, working from standard operating procedures, quality control and validation. (SCC)

#### **BIOTC 129 – Introduction to Protein Chemistry (2 cr)**

This course introduces students to the principles of protein analysis and methods used in the biotechnology industry for the isolation and purification of proteins. (SCC)

#### BIOTC 201 - Scientific Communication (3 cr)

This course presents an in-depth examination of scientific literature and the nature of interaction among scientists, other scientists and the public. Students write a variety of scientific communications, including a prospectus of a hypothesis, a laboratory protocol, a press release, a scientific poster and a review article. Students give oral presentations using their ideas or a scientific experiment which has recently appeared in the literature. Methods for locating quality references on scientific topics are presented, including the advantages and pitfalls of using the Internet for literature research. (SCC)

#### BIOTC 220 – Instrumental Analysis (1 cr)

This course explores instrumental methods commonly used in biotechnology. Topics include pH and temperature measurements, UV/vis spectrophotometry, gas chromatography, infrared spectroscopy, DNA amplification, and liquid chromatography. (SCC)

#### BIOTC 240 – Biotechnology Internship (1-5 cr)

Internship projects are determined by the instructor and include a variety of subjects related to current trends in the biotechnology industry, such as development of DNA chip technologies, characterization of biologics, product assembly/testing for area biotech companies and research assistantships at area universities. Prerequisite: Permission of instructor. (SCC)

# BIOTC 251 – Recombinant DNA (5 cr)

This course covers the basic theory and methods of molecular biology including DNA isolation, cloning, expression of genes in bacteria, transgenic organisms, gene sequencing and various analytic techniques. (SCC)

#### **BIOTC 261 – Fermentation (5 cr)**

This course offers an in-depth examination of microbial fermentation, animal and plant cell culture, and bioprocessing. Topics include a brief history of fermentation, examples and methods of industrial fermentation, product recovery and down-stream processing, and the process of moving from a laboratory scale to an industrial scale culture. (SCC)

#### BIOTC 289 - Biotechnology Project Internship (1-3 cr)

Internship projects are determined by the instructor and include a variety of subjects related to current trends in the biotechnology industry. This course offers more advanced coursework and lab applications than those found in BIOTC 240. Prerequisite: Permission of instructor. (SCC)

# BOTANY

#### BOT 111 – Botany: Plant Structure and Function (5 cr)

A study of anatomy, physiology and genetics of flowering plants. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC, SFCC)

# BOT 112 – Botany: Survey of the Plant Kingdom (5 cr)

Representative types of plants from the major groups of the plant kingdom with emphasis on structure and taxonomy. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC, SFCC)

#### BOT 113 – Field Botany (5 cr)

Proficiency acquired in use of plant identification keys. Through laboratory experiences and field trips the student will learn to collect, press and identify by species any plants in Southeastern Washington. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160 or permission of instructor. (SFCC)

# **BUSINESS**

#### BUS 100 - Money Management (3 cr)

Students are introduced to managing all phases of family finances. Tips and techniques to help consumers survive on a limited budget are presented. Subjects include obtaining and using credit; saving money on food, financial services, automobiles, clothing, major appliances, insurance, travel, renting an apartment or buying a home. Students develop personal financial statements and budgets for future use. (SCC, SFCC)

# BUS& 101 - Intro to Business (5 cr)

Students are introduced to the broad field of business and its organization, operation and management. Business opportunities, ownership, marketing, physical factors, human resources, finance, regulations and decision-making processes are emphasized. (SCC, SFCC)

#### BUS 102 – Math Skills for Business (3 cr)

Vocational number skills with or without the use of calculators are presented in the course. Rounding, decimals, fractions, percents, word problems and using special functions on a calculator are emphasized. Applications include commissions, discounts, invoices, checking accounts and interest. (SCC, SFCC)

#### BUS 103 – Basic Business Math and Electronic Calculators (5 cr)

Students work with numbers and solve business problems using a 10-key pad including special features found on most modern business desk calculators and apply basic business math formulas. (SCC, SFCC)

#### BUS 104 - Business Mathematics (5 cr)

Practical problems in the various fields of business including a review of fundamentals are emphasized in this course. Financial statements, buying and selling goods, simple and compound interest and discounts, annuities, sinking fund and amortization, consumer credit, and stocks and bonds are presented. Prerequisite: BUS 103. (SCC, SFCC)

#### See program/course abbreviation key on page 143.

#### BUS 105 - Principles of Leadership (3 cr)

Students learn several theoretical approaches to leadership applicable within various organizational contexts including profit and nonprofit settings. Experiential learning, self-analysis instruments, role playing, case studies and related learning approaches are used to demonstrate the application of leadership principles. Selected skills and values associated with leadership success are taught. (SFCC)

#### BUS 107 – Introduction to Electronic Calculators (1 cr)

Students learn to perform basic operations of an electronic calculator and develop a reasonable combination of speed and accuracy. (SCC, SFCC)

# BUS 108 - eBusiness (2 cr)

This course is an introduction to the basics of using the Internet as a marketing medium. Special emphasis is placed on searching, exploring and establishing a commercial presence on the World Wide Web. Topics include effective search strategies, examples of outstanding web sites, and guidelines for creating persuasive home pages. The course also allows the student to create a marketing plan. Prerequisite: Browser and word processing courses or permission of instructor. (SFCC)

#### BUS 109 - Internet Marketing (3 cr)

Students focus on using the Internet as a communication medium to market business. Elements of a marketing plan as they relate to e-commerce are introduced. Simple web site creation and promotion, on-line selling strategies, and the mechanics of e-commerce are presented. (SCC, SFCC)

#### BUS 110 - Number Skills (1 cr)

This class is a review of basic number skills both with and without an electronic calculator. Topics include the arithmetic functions of addition, subtraction, multiplication and division. (SFCC)

# BUS 111 - Math Skills (1 cr)

This class focuses on the important math skills involved in the process of estimating numbers and using the worldwide metric system. Prerequisite: BUS 110 or BMC Math Skills Test. (SFCC)

#### BUS 112 – Advanced Calculator Skills (1 cr)

This class covers special functions and operations of an electronic calculator. Topics include accumulation, fractions, percentages, powers and using machine memory. Prerequisite: BUS 110. (SFCC)

# BUS 113 - Essential Business Applications (1 cr)

This class focuses on essential applications of business math using the electronic calculator and computer. Topics include word problems, simple and compound interest, percentages, commissions, inventory and payroll. Prerequisite: BUS 112. (SFCC)

#### BUS 114 - Basic Retail Application (1 cr)

This class covers the math techniques used for merchandising operations such as cash and trade discounts; invoices and transportation costs; and markups, markdowns and markons while using the special features available on an electronic calculator. Prerequisite: BUS 112. (SFCC)

# BUS 115 - Budgeting Skills (1 cr)

This class is a practical, basic guide to managing finances. Students prepare a workbook to set financial goals, prepare easy-to-use budget worksheets and keep track of spending. (SFCC)

#### BUS 116 - Cash, Checks and Credit Cards (1 cr)

This class introduces wise use of banking and financial services, including checking and savings accounts, cash machines, credit cards, consumer loans and dangers of overextending credit use. (SFCC)

#### BUS 117 – Smart Consumer Buying Techniques (1 cr)

This class covers special tips and techniques to help consumers make their money go farther. Topics include saving money on buying food, transportation, appliances, energy, clothes, housing, health care, leisure and other family needs. (SFCC)

#### BUS 118 – Managing Risk (1 cr)

This class covers the fundamental aspects of risk management, including home and auto insurance, health and disability insurance, and life insurance. (SFCC)

#### BUS 120 - International Business (5 cr)

Students investigate the importance of international business and trade within the U.S., the Pacific Northwest, and Washington State as a way of promoting economic growth and future job opportunities. International people management, international finance and accounting, and international legal and political considerations are emphasized. Other topics addressed are the effects of culture, politics, ethics and communication on international business practices, and overseas marketing and advertising, using an interdisciplinary and multicultural approach. International career options and business opportunities are discussed. (SCC, SFCC)

#### BUS 121 – Global Business Life and Culture (5 cr)

This is an interdisciplinary course designed to give students a broad overview of the business practice, culture and civilization of specific countries or regions. It uses a social, historical and cultural approach to various, contemporary, global societies and business practices. It includes lectures by U.S. and foreign faculty, supporting seminars, and related field trips and site visits. This course is offered only for SFCC students registered in the corresponding summer Study Abroad program. Prerequisite: Concurrent participation in summer Study Abroad program. (SFCC)

# BUS 130 - International Finance (3 cr)

Students study the confusing world of international finance. Methods of payment for imports and receiving payment for exports are presented. National and international monetary systems, the role of foreign currency and foreign exchange, and international capital markets are emphasized. Basic concepts and practical applications and examples of international finance transactions are addressed. (SCC, SFCC)

# BUS 140 - International Marketing (3 cr)

The problems of marketing in the international arena and how marketers approach and solve them are addressed in this course. Theory and practice of international marketing through the use of practical examples and actual case studies of international marketing organizations are emphasized. (SCC, SFCC)

#### BUS 150 — International Economics (2 cr)

Student's survey selected international economic institutions and problems. Trade, balance of payments, monetary relations, economic development and multinational corporations are discussed. The importance for students to have a better grasp of international economics institutions as the U.S. economy becomes more dependent on the world economy is stressed. (SCC, SFCC)

## BUS 160 – International Management (3 cr)

This course is an overview of the complex, dynamic field of international management. Typical management functions (planning, organizing, staffing and controlling) focusing on cross-cultural and cross-national implications for business are emphasized. Recruitment, training, compensating and retention of a multinational workforce with an emphasis on increasing the effectiveness and efficiency of employees are covered. (SCC, SFCC)

# BUS 170 - Export/Import Techniques (2 cr)

An overview of the steps involved in exporting or importing a product or service. Course covers the different aspects of export/import and assists in developing a working knowledge of various terms and techniques essential to success. Topics include pros and cons of export/import, sources of private and public advice and assistance, methods, channels of distribution, terms of payment, appropriate documentation, and sources of financing. (SFCC)

#### BUS 180 – Travel and Tourism (3 cr)

This course is an overview of the dynamic" world of travel" with an introduction to tourism and its international impact. Topics will include the who, why, what, when, where and how of travel. Emphasis is on organizing professional and personal travel as a life-enriching experience and exploring careers in the travel industry. (SFCC)

#### BUS 182 - Selling Travel (3 cr)

Focusing on the skills and techniques necessary for successful sales, this course concentrates on principles of selling and promoting travel. Students learn to reach a target market, discover client travel needs, present features and benefits, create positive client rapport, and close the sales. (SFCC)

# BUS 185 — Travelography: Destinations for Business and Tourism (3 cr)

This course provides an introduction to the destinations and geographic background which are important for business and tourism. Topics include discussions of domestic and international sites (countries, continents, regions and cities), with an emphasis on locations, facilities, physical features, time, climate, weather, language, money, and other business and cultural implications for people traveling, or doing business at, different sites around the world. (SFCC)

#### BUS 186 – Customer Service for Travel (2 cr)

This class reviews marketing principles and selling skills for successful travel sales, including effective customer service techniques and strategies to build a loyal customer base. (SFCC)

# BUS 187 – Making Travel Arrangements (2 cr)

This class assists people in making reservations and travel arrangements for hotel/motel accommodations, airline flights, rental cars, airport transfers and so on. Topics cover both personal travel and making arrangements for professional travel for others. (SFCC)

# BUS 188 – Organizing and Leading Tours (2 cr)

This class is a practical guideline introducing the tools and techniques used in planning, organizing and leading tours. Topics range from arranging simple museum visits to the complex itinerary of an international trip. The course assists students in preparing for careers as tour guides, directors or planners. (SFCC)

# BUS 190 – Call Center Job Preparation Skills (3 cr)

This course is designed to prepare students for the job search process. Topics included in the course are self-analysis, personal appearance and grooming, communicating ideas through written assignments and oral presentations, resume writing, employment letters, applications, interviewing practice, job search techniques, and call center functions. (SFCC)

# BUS 191 - Job Success (1-3 cr)

A course or courses to include selected material from the following areas: self-analysis, goal setting, career exploration, personal appearance and grooming, resume writing, application letter writing, the employment interview, communication of ideas, interviewing practice, and other techniques of the job search. (SFCC)

# BUS 192 – Special Business Topics (1-5 cr)

Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

# BUS 193 – Special Business Topics (1-5 cr)

Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

# BUS 194 – Special Business Topics (1-5 cr)

Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

# BUS& 201 – Business Law (5 cr)

Students learn fundamental principles of law and the legal system and their application and operation in society. Analysis of business fact situations, isolating issues and recognizing the need for appropriate legal counsel, and the exercise of preciseness of language and action in matters with legal significance are emphasized. (SCC, SFCC)

# BUS 204 - Introduction to Law (5 cr)

Students study today's legal environment including the various types of law, analysis of the different courts and judicial systems. Tort law, consumer law, domestic relations and estate planning are emphasized. How judges make decisions and what type of relief they may grant are presented. (SCC)

# BUS 209 - Internet Project (3 cr)

This is the final project and the capstone course for the Internet certificate program. Students are required to develop a complete marketing plan on the Internet/World Wide Web, which culminates in the creation of a home page for a real business. Prerequisite: GRDSN 126. (SFCC)

# BUS 217 – Business Statistics (5 cr)

The application and interpretation of statistics are presented in this course. Descriptive and inferential statistical methods that are most useful in marketing and business research studies are emphasized. Prerequisite: MATH 099 with a 2.0 or better or appropriate placement scores. (SCC, SFCC)

# BUS 280 - Human Relations in Business (5 cr)

The needs of the business or other formal work institutions and how they interact with individual needs are covered in this course. Leadership styles, formal organizational policies and procedures, and general cultural patterns to determine how humans act in a work environment are emphasized. The manager's role in creating an acceptable and satisfying organizational climate is covered. (SCC, SFCC)

# BUS 284 – Special Business Topics (1-5 cr)

Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

# BUS 285 – Special Business Topics (1-5 cr)

Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

# BUS 286 – Special Business Topics (1-5 cr)

Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

# BUS 295 – Special Topics in Business (0.5-3 cr)

This course focuses on unique current issues affecting business and business people. The topics and content vary each quarter. Emphasis is on jurisdiction of local, state and federal agencies; professional career opportunities and qualifications for recruitment within these agencies; an overview of police problems and the scope of the law enforcement officer's role. (SFCC)

# **BUSINESS TECHNOLOGY**

# BT 100 – Beginning Keyboarding (1 cr)

Students learn computer word processing skills using the keyboard and 10-key pad. Developing speed and accuracy is emphasized; no production work. SCC only: Grading option: Pass/fail. (SCC, SFCC)

# BT 101 – Keyboarding (5 cr)

Students learn beginning computer keyboarding that includes the mastery of the alphabetic keyboard using the "key-by-touch" method. Word processing software is presented in conjunction with formatting theory for personal and business letters, memoranda, reports, centering and simple tabulation techniques. Students develop proofreading and editing skills. (SCC, SFCC)

# BT 102 – Document Processing (5 cr)

This course covers formatting theory and application instruction for personal and business letters, tables, memoranda, and reports using word processing software. Commonly used word processing software features are presented. Instruction includes the development of proofreading, editing, formatting and mechanics of written expressions. Speed and accuracy are emphasized. This course is a continuation of BT 101 or utilized as a refresher course for those who have been away from a keyboard. Prerequisite: BT 101 and 30 wpm. (SCC, SFCC)

# BT 103 – Formatting (5 cr)

Word processing software features, letters, memoranda, tables, reports and special business forms formats are taught. Techniques for speed and accuracy development are presented, and instruction includes the development of proofreading, editing, formatting and mechanics of written expression. Prerequisite: BT 102 or permission of instructor. (SFCC)

# BT 104 – Basic Grammar for Business I (5 cr)

Students review the fundamentals of grammar including basic parts of speech, writing simple sentences, and subject/verb identification and agreement. Prerequisite: Reading assessment score of 20-39 percentile. (SCC)

# BT 105 – Basic Grammar for Business II (5 cr)

Students review fundamental writing skills with major emphasis on improving sentence structure and grammar. Accuracy in spelling, punctuation, vocabulary and proofreading is stressed. Prerequisite: BT 104. A reading score of at least 33 on the ASSET or 59 on the COMPASS is acceptable in lieu of BT 104. (SCC)

# BT 107 – Business Communications (3 cr)

This class offers a comprehensive review of correct grammar usage and spelling. (SFCC)

# BT 108 – Business Communications (3 cr)

This class concentrates on the mechanics of punctuation and continued review of spelling. Prerequisite: BT 107. (SFCC)

# BT 109 – Business Communications (5 cr)

Business students learn basic writing skills including grammar, punctuation, spelling and vocabulary. Business terminology and usage are emphasized. Prerequisite: Must meet minimum standard on assessment test or 2.0 grade or better in BT 105. (SCC)

# BT 121 – Office Procedures Update (1-3 cr)

A course or courses to include selected material from the following procedural areas: receptionist duties, telephone skills, mail handling, reprographics, ordering and storage of supplies, office careers, travel arrangements, meeting planning and taking of minutes, filing and records management, financial transactions, time management, and office management. (SCC, SFCC)

# BT 122 – Office Skills Update (1-3 cr)

This course includes selected material from the following skill areas: keyboarding, formatting, notetaking, shorthand review, shorthand transcription, dictation, machine transcription and text editing/word processing. (SCC, SFCC)

# BT 123 – Written Communication Skills Update (1-3 cr)

This course includes selected materials from the following skill areas: basic business grammar, grammar and punctuation review, proofreading, editing, business letter composition, and report preparation. (SCC, SFCC)

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# BT 124 – Office Automation Update (1-3 cr)

This course includes selected material from the following areas: technology used in today's offices; application and evaluation of technological information; integration of applications; information management; organization and control; future technological developments and expectations; and technology as applied to calendaring, electronic mail, spreadsheets, records management and networking. (SCC, SFCC)

## BT 125 - Office Politics (1-3 cr)

Students learn the definition of office politics using selected material in today's office environment. Self-analysis in a political setting; tools of political analysis; victims of office politics; when to change jobs; how politics affect women; minorities, older and younger workers; extraordinary politics; and politics in profit and nonprofit organizations are emphasized. Setting objectives and goals, and planning strategies are discussed. (SCC)

# BT 126 – Spelling and Vocabulary (1-3 cr)

This course includes selected material from the following areas: spelling, prefixes, homonyms, synonyms, confusables, compound nouns, compound adjectives, capitalization, bias-free terms and other spelling demons; computer-related vocabularies, business-related vocabulary, important abbreviations and symbols; and use of the dictionary and thesaurus. (SCC, SFCC)

#### BT 127 - Human Relations and Professional Development (1-3 cr)

This course includes selected material from the following areas: how to get along with people on the job and in your life; the importance of communication; the qualities of business success; your professional and personal image; and the elements of personal development covering grooming, business dress, nutrition and exercise. (SCC, SFCC)

# BT 128 - Office Math Applications (1-5 cr)

Students learn mathematical concepts for the office employee including review of addition, subtraction, multiplication and division, and the use of fractions, percentages and decimals as they pertain to business office applications. Students work with numbers and solve business problems using a 10-key pad including special features found on most modern business desk calculators and apply basic business math formulas. (SCC)

### BT 135 - Introduction to Machine Transcription (3 cr)

This is an introductory course using transcription machines with emphasis on developing listening skills and basic machine transcription techniques for document processing. Transcription is done applying correct grammar, punctuation, formatting, capitalization, number expression and abbreviations. (SFCC)

# BT 140 - Notetaking (5 cr)

Students learn alphabetic shorthand, an abbreviated writing system based on longhand and phonics. Students, secretaries, managers and others who take dictation, classroom notes, telephone messages and meeting minutes are presented with techniques in writing notes quickly and legibly with a minimum of learning time. Prerequisite: Basic keyboarding skills. (SFCC)

# BT 142 – Transcription Skills (3 cr)

This course includes introduction and development of basic transcription skills using notes taken from dictation. The dictation includes letters, memos, minutes of meetings and reports. Other important components of the course are spelling and punctuation review. (SFCC)

#### BT 151 – Business Student Preparation (5 cr)

Students increase the ability to succeed in college business courses. Skills necessary to reach educational objectives are presented including planning, test taking, communication skills, study techniques, question and answering skills, library use, and personal issues that face many students as they complete their business course requirements. (SCC)

# BT 155 - Records Information Management (3 cr)

Records management emphasizes the principles and practices of effective management of information for both manual indexing and automated records systems. The basic manual indexing systems concept covers all standard indexing rules published by the Association of Records Managers and Administrators (ARMA). The automated records systems provide the opportunity to work with the kinds of computer databases encountered in business. The process of coordinating both the manual indexing rules and computer indexing rules are stressed. The course emphasizes the need to understand the record's life cycle-from creation to disposition-within the structure of any given organization. The course stresses the federal legislation designed to protect information and the privacy of the individual or organization. The course prepares the student for several career options within the records/information management field. Prerequisite: 1 credit of CAPPS 114. (SFCC)

#### BT 160 – Job Preparation Techniques (3 cr)

Students prepare for the job search process. Self-analysis, goal setting, personal appearance and grooming, communicating ideas through individual and group presentations, resume writing, application cover letter writing, interviewing practice, and other techniques are emphasized. Prerequisite: Second-year student or permission of instructor. (SCC, SFCC)

# BT 165 - Word Processing (5 cr)

Students learn word processing functions such as formatting, maintaining and printing documents including tables and long manuscripts. Using writing tools, manipulating text among and within documents, creating and formatting tables, adding visual appeal, creating charts, and importing data are emphasized. Formatting with macros and styles, and sorting and selecting text and data are presented using Microsoft Word. Critical thinking skills, the mechanics of written expression, proofreading, editing and formatting are included. Prerequisite: BT 102 with a minimum of 2.0 grade or permission of instructor. (SCC)

#### BT 170 - WordPerfect 1 (2 cr)

This course is the introductory course in a series of courses designed to develop proficiency in the use of WordPerfect. The focus of this course is basic formatting and editing applications. Prerequisites: Basic keyboarding skill. (SFCC)

# BT 172 – Publisher (2 cr)

This class offers beginning and advanced instruction in Microsoft Publisher. (SFCC)

#### BT 175 - Voice Processing (2 cr)

Students learn skills necessary to create documents using Microsoft Office Speech Recognition to improve writing, increase productivity, avoid injury and overcome handicaps. Students also learn to create a voice profile, use voice training to improve speech recognition, dictate text and voice commands. This course is offered online only. Grading option: Pass/fail. (SCC)

# BT 180 – E-Commerce for the Office (3-5 cr)

Students search and evaluate product sites on the Internet. Learning to secure transactions, discuss privacy issues and perform career searches is emphasized. (SCC)

# BT 186 — Customer Service for Travel (2 cr)

This class reviews marketing principles and selling skills for successful travel sales, including effective customer service techniques and strategies to build a loyal customer base. (SFCC)

# BT 196 - Skillbuilding (1 cr)

This individualized program builds keyboarding speed and improves accuracy. It may be taken a maximum of three times. Grading option: Pass/ fail. Prerequisite: Ability to keyboard by touch. (For SCC: BT 196. For SFCC: BT 196, 197, 199). (SCC, SFCC)

#### BT 197 – Skillbuilding (1 cr)

This individualized program builds keyboarding speed and improves accuracy. It may be taken a maximum of three times. Grading option: Pass/ fail. Prerequisite: Ability to keyboard by touch. (For SCC: BT 196. For SFCC: BT 196, 197, 199). (SFCC)

#### BT 199 – Skillbuilding (1 cr)

This individualized program builds keyboarding speed and improves accuracy. It may be taken a maximum of three times. Grading option: Pass/ fail. Prerequisite: Ability to keyboard by touch. (For SCC: BT 196. For SFCC: BT 196, 197, 199). (SFCC)

#### BT 201 – Information Processing (5 cr)

Information processing techniques using word processing, database, spreadsheet and presentation software are taught in this course. Students complete office projects requiring critical thinking and problem-solving skills. Assignments include producing reports using information from databases and spreadsheets, formatting intricate tables and graphs, and correspondence with special features. Prerequisite: For SCC: BT 165 with a 2.0 or better. For SFCC: Permission of instructor. (SCC, SFCC)

# BT 202 – Advanced Information Processing (5 cr)

Students utilize advanced features of spreadsheet, database and presentation software and integrate these software programs with word processing. Critical thinking and problem-solving skills are emphasized by focusing on proofreading, editing and the mechanics of written expression. Prerequisite: BT 201. (SCC)

# BT 231 - Office Procedures (5 cr)

This course presents the basic office duties of a receptionist. Answering the telephone, mail handling, reprographics, ordering and storage of supplies. Professionalism and human relations concepts also are presented. Guest speakers and tours may be scheduled. Prerequisite: BT 102. (SCC, SFCC)

# 162 BT 232 – Office Procedures II (5 cr)

This course prepares students to handle advanced office tasks required of an administrative assistant. Projects require using technology and organizational skills in handling office communications and managing meetings. Critical-thinking and decision-making abilities are emphasized. Prerequisite: Permission of instructor. (SFCC)

# BT 233 - Directed Office Practice (3-6 cr)

Students perform at beginning, intermediate and/or advanced levels of office work in a professional environment. A minimum of one or two hours of lab daily is required. Prerequisite: Permission of instructor. (SCC)

# BT 234 - Administrative Professional Practicum (5 cr)

Students gain hands-on experience using current integrated office software while working at their own office work stations using electronic mail, calendaring, scheduling and graphics. Students complete simulated office projects requiring application of information, work organization, perception, human relations skills, prioritizing and decision-making skills. Prerequisite: BT 262 and permission of instructor. (SFCC)

# BT 235 – Machine Transcription (5 cr)

Machine transcription techniques are presented in this course and demonstrated with emphasis on language mechanics, including spelling, punctuation, grammar, style, capitalization, abbreviation, word division and expression of numbers. Word processing software is used to achieve these goals. Prerequisite: For SCC: BT 109 with a 2.0 and 50 wpm. For SFCC: BT 102, 107, 108 or permission of instructor. (SCC, SFCC)

#### BT 240 - Administrative Office Procedures (8 cr)

This course provides office-related situations including decision-making and critical thinking activities. Planning international travel, developing and conducting a seminar, choosing resources, and selecting guest presenters are included. Tours of local businesses are scheduled. Prerequisite: BT 235 with a 2.0 grade or better and keyboarding speed of at least 50 wpm. (SCC)

#### BT 241 – Office Politics (3 cr)

This course provides insight into the political and working relationships encountered in the business world. Emphasis is given to the importance of self-understanding and the bearing this has on working successfully in a business environment. (SCC)

# BT 250 – Information Technology (5 cr)

This course provides an overview of office information systems for students entering administrative office careers. Students explore office technology. Microcomputer operation and hardware, the Internet, multimedia, electronic record systems are addressed. Students learn to evaluate and purchase office technology, set up a microcomputer, install software, and identify and troubleshoot problems commonly faced by administrative office professionals. (SCC)

# BT 255 - Business Productivity Tools (3 cr)

This course is designed to prepare students to use computerized business productivity tools to support the functions of management: planning, organizing, leading and controlling. Students will design, customize and implement a variety of business applications. Prerequisite: 1 credit of CAPPS 112. (SFCC)

#### BT 257 – Presentation Graphics/Publishing (5 cr)

This course is designed to prepare students to create desktop publishing documents for a typical office. Students will be able to design a variety of publications used in an office such as newsletters, letterheads, flyers, and brochures using the latest software. Students will apply design concepts and use appropriate media to present material. Prerequisite: Permission of instructor. (SCC, SFCC)

#### BT 258 - Desktop Publishing (5 cr)

This course is designed to prepare students to create desktop publishing documents for a typical office. Students will be able to design a variety of publications used in an office such as newsletters, letterheads, flyers, and brochures using the latest software. Students will apply design concepts and use appropriate media to present material. Prerequisite: Permission of instructor. (SFCC)

#### BT 260 - Administrative Office Management (5 cr)

Students are presented with the fundamental principles of office organization and management as applied to business enterprises. Flow of work, routines, equipment and systems are studied. Prerequisite: Second year standing. (SCC, SFCC)

# BT 262 – Word Processing (5 cr)

Students accomplish entry-level competence on word processors and knowledge of procedures in word processing centers. Assignments are given to develop proofreading, editing, formatting, mechanics of written expression and critical thinking skills. This course consists of three hours of lecture and four hours of skill development, two of which are to be arranged. Prerequisite: BT 102. (SFCC)

#### BT 263 - Integrated Office Applications (5 cr)

Students use advanced software and learn to process handwritten, dictated and stored office documents. Developing, formatting, proofreading and editing documents also are included. The mechanics of written expression, critical thinking skills, technical problem solving and software related troubleshooting skills are emphasized. Prerequisite: For SCC: BT 201 and BT 235 with a 2.0 or better and keyboarding at 50 wpm. For SFCC: BT 262. (SCC, SFCC)

#### BT 265 – Information Processing Practicum (3-6 cr)

Students input, edit, revise, merge and/or print documents on word processing equipment in an office environment to produce manuals, tests, course outlines, mailing lists, correspondence and other documents. Labeling and filing rules for electronic media are presented following the directions of users. Prerequisite: Permission of instructor. (SCC)

#### BT 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

BT 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC, SFCC)

# BT 270 – Office Computer Support (3 cr)

Students learn how an employee in an office can troubleshoot, maintain office computers, networks, and peripherals. Practical hands-on experience emphasizes the analysis of problems. Prerequisite: IS 120, 160 or permission of instructor. Recommended second year course. (SFCC)

#### BT 272 – Business Correspondence (5 cr)

Students learn to compose common types of business correspondence including the various types of letters, memos and reports. Prerequisites: SCC: Typing proficiency and BT 109 with a 2.0 or better and SFCC: BT 107, 108 or ENGL& 101. (SCC, SFCC)

#### BT 280 – Project Management for the Office (3-5 cr)

Students learn the key elements of project management. Students also conduct problem analysis, and develop action plans and cost/benefit analysis using project management software to assist in developing and managing their plans. Prerequisite: Second-year student. (SCC)

# BT 285 – Administrative Professional Internship (2-3 cr)

Students apply their office and human relation skills during this two-week assignment at an area business. Internship sites are tailored to meet individual student needs to complement the student's program. SFCC Grading option: Pass/Fail. Prerequisite: For SFCC: BT 160 or concurrent enrollment in BT 160 and permission of instructor. (SCC, SFCC)

#### BT 288 — Cooperative Education Work Experience (No Seminar) 1-18 cr)

For course description, see Cooperative Education. (SCC)

# CAD COMPUTER AIDED DESIGN AND DRAFTING

# CAD 105 - Basic Blueprint Reading (3 cr)

This course introduces students to blueprint reading with emphasis on the interpretation of a variety of drafting styles. Students practice freehand sketching. (SCC)

#### CAD 114 – Engineering Graphics 1 (4 cr)

This course introduces students to fundamental drafting practices with emphasis on drawing methods used in architecture, mechanical engineering, civil/structural engineering and electronics. Drafting media, drawing reproduction and storage, the format of drawing arrangement, and the drafting tools used in manual drafting also are emphasized. (SCC)

#### CAD 124 – Engineering Graphics 2 (5 cr)

This course is an extension of CAD 114 with emphasis on drawing methods used in engineering. Dimensioning techniques, auxiliary views and sectioning methods also are emphasized. Prerequisite: CAD 114 and MET 125 or CAD 129. (SCC)

#### CAD 129 – Computer Aided Drafting (5 cr)

Students are introduced to the fundamentals of computer aided design (CAD) drafting. AutoCAD software using the principles of mechanical, architectural, civil and electrical/electronics is emphasized. This course is for students focused specifically in CAD, MET and engineering technology programs. Prerequisite: MET 101; CAD 114 or approved equivalent. (SCC)

#### CAD 131 – Dimensioning and Tolerancing (3 cr)

This course introduces the use of geometric calculations and measuring instruments to determine true tolerances on detail drawings. Both linear tolerances and "Geometric Dimensioning and Tolerancing" formats are covered. Prerequisite: CAD 124, 129. (SCC)

See program/course abbreviation key on page 143.

#### CAD 132 - Engineering Graphics 3 (5 cr)

This course introduces the development of production-type working drawings. Drafting and CAD techniques used to create assembly and detail drawings in orthographic and pictorial formats are emphasized. Raw materials and general machine components also are introduced as well as the selection processes used in industry. Prerequisite: CAD 124 and MET 125 or CAD 129. (SCC)

# CAD 135 - Schematics (3 cr)

This course introduces the basic electrical theory and the development and preparation of drawings for the manufacturing of electronic products. The combination of electronics, industrial electricity and hydraulic and pneumatic power components for machine control is emphasized. Types of drawings include schematic, logic, system, interconnection and wiring diagrams. An introduction and practice in programmable logic controls also is included. Prerequisite: MET 122. (SCC)

# CAD 241 - CAD Solid Modeling (2-5 cr)

This course offers advanced computer aided drafting techniques in threedimensional solid modeling. Individual part files, and application files in weldments and sheet metal are emphasized. Solid model prototype printing and CNC applications are also included. This course may be repeated up to a maximum of 5 credits. (SCC)

#### CAD 248 – Mechanical CAD Applications (4 cr)

This course introduces advanced concepts and applies CAD skills in mechanical engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

# CAD 252 – Advanced CAD (5 cr)

This course presents advanced concepts and applications for computer assisted drafting systems in an engineering environment. Advanced drafting techniques are included with emphasis on three-dimensional solid modeling. Software/hardware customization techniques including menus, start-up, CAD programming fundamentals and management skills are also emphasized. Prerequisite: CAD 241. (SCC)

# CAD 258 – Schematic CAD Applications (4 cr)

This course introduces advanced concepts and applies CAD drafting skills in schematic engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

#### CAD 259 - Architectural CAD Applications (4 cr)

This course introduces advanced concepts and applies CAD skills in architectural drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

#### CAD 260 - Fabrication and Piping CAD Applications (4 cr)

This course introduces advanced concepts and applies CAD drafting skills in sheet metal/HVAC fabrication drafting and piping drafting projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and then demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

#### CAD 261 - Project Design (4 cr)

This advanced course is structured to correlate all technical disciplines covered in physics, statics, strength of materials and mathematics. Power transmission systems and power requirements, design techniques for specific mechanical advantage, efficiency and friction loss in mechanical systems, linear and angular time-motion concepts, stress determination and analysis, and structural member sizing are emphasized. Results of projects are presented in a formal engineering report format. Prerequisite: MET 250. (SCC)

#### CAD 268 – Structural CAD Applications (4 cr)

This course introduces advanced concepts and applies CAD skills in structural engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

# CAD 269 – Civil CAD Applications (4 cr)

This course introduces advanced concepts and applies CAD drafting skills in civil engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and then demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

# CARPENTRY AND CABINETRY

# CARP 113 – Carpentry Math (5 cr)

This course is an overview of basic math concepts and their applications to the carpentry field. (SCC)

#### CARP 114 – Transit Layout and Design (4 cr)

This course introduces students to the fundamentals of transit setup and use as it pertains to residential construction. Practical experience, including house layout, excavation, and foundation layout and design is emphasized. (SCC)

#### CARP 115 – Basic Construction Systems (7 cr)

This course is an introduction to residential construction methods and materials. Practical shop experience includes layout and design of footings and foundations; floor, wall, ceiling and roof framing; and materials estimation for all building aspects. (SCC)

# CARP 123 - Cabinetry Math (3 cr)

This course continues with the concepts introduced in CARP 113. Linear, board, and square foot measurements, and using formulas to calculate material requirements and costs are emphasized. Prerequisite: CARP 113, 114, 115 or permission of instructor. (SCC)

# CARP 124 – Cabinet Layout and Design (5 cr)

This course introduces the fundamentals of cabinet making. Design requirements, layout methods and installation practices are emphasized. An in-depth study of the types and uses of building materials and their application to cabinetry also is covered. Prerequisite: CARP 113, 114, 115 or permission of instructor. (SCC)

## CARP 125 – Cabinet Construction (5 cr)

This course offers practical shop experience in layout, machining, and assembly of residential cabinetry. The use of tools such as table saws, jointers, radial arm saws, planers and shapers, and their use in the sizing, shaping, and preassembly process is emphasized. The application of hardware and plastic laminate countertops also is covered. (SCC)

# CARP 126 – Cabinet Finishing (3 cr)

This course offers practical shop experience and techniques in finishing methods commonly used in the cabinetry field. Application of stains, sealers, and lacquers, and the proper use of a HVLP (high volume, low pressure spray system) is emphasized. Prerequisite: CARP 113, 114, 115 or permission of instructor. (SCC)

## CARP 133 - Introduction to Estimating (3 cr)

This course offers practical applications and theory in estimation of materials for all phases of a building project. The use of construction plans and local building codes in determining the cost of materials is emphasized. Prerequisite: CARP 123, 124, 125, 126 or permission of instructor. (SCC)

#### CARP 134 – Introduction to Trim and Exterior Finish (3 cr)

This course introduces the materials and methods used in exterior finish work including door and window terminology, roofing and exterior siding materials, and soffit and gable end components. Prerequisite: CARP 113, 114, 115. (SCC)

#### CARP 135 – Practical Construction Applications (8 cr)

This course offers practical applications and on-the-job experience on an actual construction project utilizing all training experience and carpentry techniques learned in the previous quarters. An on-site project includes building layout, forming and pouring footings and walls, framing, roof construction, door and window installation, and exterior siding and trim work. Prerequisite: CARP 123, 124, 125, 126. (SCC)

# CARP 136 - Residential Blueprint Reading (2 cr)

This course introduces the interpretation of residential blueprint reading emphasizing plan types, dimension lines, scaling prints, and the symbols and abbreviations common to a variety of construction plans. Prerequisite: CARP 123, 124, 125, 126 or permission of instructor. (SCC)

# CARP 223 – Advanced Cabinetry Math (3 cr)

This course provides students with advanced skills in using formulas for calculation of a variety of projects. Prerequisite: CARP 123. (SCC)

### CARP 224 – Advanced Cabinet Layout and Design (5 cr)

This course provides students with 77 hours of practical applications in the layout and design of custom cabinets. Prerequisite: CARP 124. (SCC)

#### CARP 225 – Advanced Cabinet Construction (5 cr)

This course provides practical shop experience in the cutting, marking and assembly of a variety of kitchen and bathroom cabinets. Students gain 110 hours of practice in advanced cabinet construction methods. Prerequisite: CARP 113, 114, 115. (SCC)

#### CARP 226 – Advanced Cabinet Finishing (3 cr)

This course provides a combination of lecture and advanced lab applications in the areas of staining, sealing and other finishing methods used on kitchen and bathroom cabinets. Prerequisite: CARP 126. (SCC)

# CARP 243 – Plan Reading and Material Estimation (7 cr)

This course offers theory and practical applications in materials estimation for a building project. Interpretation of architectural drawings, plans and materials estimation from these drawings is emphasized. Prerequisite: CARP 133, 134, 135, 136 or permission of instructor. (SCC)

## CARP 244 – Practical Framing Applications (9 cr)

This course offers practical applications in aspects of residential framing methods. Building layout procedures; floor, wall and roof framing methods are emphasized. Prerequisite: CARP 133, 134, 135, 136 or permission of instructor. (SCC)

# CARP 251 - Introduction to Construction Trades (2 cr)

This course provides students with a broad overview of trades other than carpentry involved in a typical residential construction site. Topics include scheduling, basic concepts and terminology, and installation costs associated with each trade emphasizing, electrical, plumbing, and HVAC (heating, ventilation, air conditioning and refrigeration). (SCC)

#### CARP 253 — Exterior Estimating (7 cr)

This course offers practical applications in estimating that simulate on-thejob experience. Methods of calculating the quantity of materials needed for stairs, windows and doors, and insulating wall finishes are emphasized. Prerequisite: CARP 243, 244 or permission of instructor. (SCC)

#### CARP 254 – Exterior Application Methods (9 cr)

This course offers practical applications in exterior construction that simulate on-the-job experience. Exterior stair and wall treatments are emphasized. Prerequisite: CARP 243, 244 or permission of instructor. (SCC)

# CARP 263 — Interior Estimating (7 cr)

This course offers practical applications in interior estimating that simulates on-the-job experience. Methods of calculating the quantity of materials needed for cabinetry, interior trim and finish work are emphasized. Prerequisite: CARP 253, 254 or permission of instructor. (SCC)

#### CARP 264 - Interior Application Methods (9 cr)

This course offers practical applications in residential construction emphasizing installation methods of interior trim and finish work. Cabinet construction and installation are covered in detail. Prerequisite: CARP 253, 254 or permission of instructor. (SCC)

#### CARP 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

CARP 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### CARP 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### CARP 290 - Service Learning (1-2 cr)

This course is a teaching strategy combined with learning that integrates meaningful voluntary community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. Grading option: Pass/fail. (SCC)

# CHEMICAL DEPENDENCY PROFESSIONAL STUDIES

# HSSUB 131 – Survey of Chemical Dependency (3 cr)

Students are introduced to the many and varied drug-use behaviors that permeate our society, including psychosocial, physiological affects on personality, lifestyle and behavior. This is a foundational course for those who want to understand drugs and drug-use behavior. (SFCC)

# HSSUB 141 - Law and Chemical Dependency Professionals (2 cr)

This course is designed for the student seeking information regarding legal issues in the field of chemical dependency counseling. Included are topics on the Washington Administrative Code (WAC) regarding completion of the necessary steps to become certified as a counselor, as well as current Driving Under the Influence of Intoxicants (DUI) laws. The course reviews the fundamental and technical aspects of laws and policies regarding alcohol and drug treatment, liability and malpractice. It also acquaints the students/professionals with their legal obligations to clients regarding confidentiality. (SFCC)

# HSSUB 142 – Ethics in Chemical Dependency (2 cr)

This course is designed for the student seeking information regarding ethical issues in the field of chemical dependency counseling. Included are specific case studies to enable the student to distinguish between "ethics" and "laws", a comparison of ethical guidelines for counselors and social workers, development of an individual code of ethics and self-evaluation procedures, and development of professional skills that support ethical and effective practice as a member of the health care community, particularly regarding client-counselor relationships. (SFCC)

#### HSSUB 172 - Chemical Dependency in the Family (3 cr)

This course examines family systems in drug-free and drug-affected family disease and recovery. It examines how to facilitate change in those persons who are affected by the problems of an alcoholic or chemically dependent individual. Prerequisite: HSSUB 131 (SFCC)

#### HSSUB 176 – Chemical Dependency Counseling Techniques (5 cr)

This is an experiential course on techniques used in counseling. The student is exposed to basic counseling skills, strategies employed in chemical dependency treatment, counseling techniques used in addressing treatment needs and techniques used for removing blocks to recovery. Specific techniques are demonstrated and practiced that are appropriate for a variety of populations. Prerequisite: HSSUB 131 or permission of instructor. (SFCC)

# HSSUB 179 – HIV/AIDS and Chemical Dependency (2 cr)

This course prepares chemical dependency professionals to respond to community, client and personal HIV-related needs that are effective and humane. Topics include risk assessment and intervention, legal and ethical issues, and vital information on other STDs and TB. (SFCC)

# HSSUB 182 – Cultural Diversity in Addiction Counseling (2 cr)

This course provides the foundation information about multicultural perspectives as well as culturally sensitive counseling dynamics. (SFCC)

# HSSUB 261 — Alcohol and Other Drug Information School: Instructor Training (3 cr)

This course is designed to teach chemical dependency counselors or trainees to conduct the 9-12 hour class that is required for nonchemically dependent persons convicted for driving under the influence. This course assists in developing curriculum planning and instruction skills. Prerequisite: HS-SUB 131, 275. (SFCC)

# HSSUB 275 – Physiological Actions of Alcohol and Drugs (5 cr)

This is a review of the pharmacology of psychoactive drugs. It is a researchbased study of all categories of mind-altering substances. Prerequisite: HSSUB 131, 172. (SFCC)

#### HSSUB 277 – Group Process in Chemical Dependency Treatment (5 cr)

Designed to clarify the role and function of the chemical dependency counselor as a group facilitator. The student learns to use group therapy as an effective tool in working with people with alcohol/drug-related problems. Prerequisite: HSSUB 131 or permission of instructor. (SFCC)

# HSSUB 279 - Case Management of Chemically Dependent Client (3 cr)

This course prepares students to function effectively as case managers. It includes detailed instruction in a systemized, uniform, problem-oriented recording system as well as methods and strategies employed in intervention, assessment, intake, treatment planning and case supervision in a variety of treatment settings. Prerequisite: HSSUB 131, 172. (SFCC)

# HSSUB 280 – Advanced Case Management (3 cr)

This course allows addiction studies students the time necessary to become more proficient in the records management competencies. Prerequisite: HSSUB 279. (SFCC)

#### HSSUB 290 – Current Issues in Chemical Dependency (5 cr)

This is an advanced course for those completing or adding to new certification requirements. This is a multi-topic course addressing abnormal psychology and chemical dependency counseling, adolescent assessment in chemical dependency, and relapse prevention. Prerequisite: HSSUB 131, 275, 279. (SFCC)

# **CHEMISTRY**

# CHEM 101 – General Chemistry (5 cr)

A survey of basic principles of general chemistry including the metric system theory and structure, periodic table, bonding, moles, stoichiometry, gases and enthalpy changes. Intended for nonscience majors. Prerequisite: A working knowledge of basic algebra. (SCC)

#### CHEM 104 – Fundamental Concepts of Chemistry (1-2 cr)

This is a short course of variable 1 to 2 credits, designed to introduce fundamental chemistry concepts by engaging students in hands-on learning activities. It provides students with basic knowledge of chemistry as support for further studies and personal enrichment. Content of the learning activities include atomic structure, periodic table, chemical bonding, types of reactions such as acid/base and redox, physical states of matter, molecular structure, polarity, measurements, mole concept and stoichiometry. Fulfills up to 2 credits of the laboratory science requirement for the A.A. degree. (SCC)

COURSE DESCRIPTIONS

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### CHEM& 110 - Chemical Concepts w/Lab (5 cr)

A survey course of basic concepts in chemistry with emphasis on the application of these topics in society. Topics covered may include philosophy and methods of science, arithmetic calculations, the metric system, unit conversions, atomic theory, chemical bonding, types of chemical reactions, gases, nuclear chemistry and current chemical issues such as ozone layer depletion, energy and society, acid rain, polymers, or foods and drugs among others. Recommended for non-science and liberal arts majors. Fulfills laboratory science requirement for AA degree. (SCC, SFCC)

# CHEM 114 - Introduction to Chemistry--Online (5 cr)

Introduction to chemistry is an entry-level chemistry class with a modest prerequisite of elementary algebra. This course is taught online via the Internet and is aimed at people who have no prior chemistry experience. This course does not qualify as a laboratory science. Prerequisite: Basic algebra. (SCC, SFCC)

#### CHEM 115 - Environmental Chemistry w/Lab (5 cr)

This introductory course explores a wide range of topics for nonscience majors. Topics include ozone and SMOG chemistry, airborne particulates and acid rain, the greenhouse effect and ozone layer, structure and chemistry of freshwater bodies, environmental impact of metals and organic pollutants, water soil contaminants and their persistence of contaminants, and soil degradation and chemical assessment of contaminants soils. Soil and water remediation, and energy utilization and conservation are emphasized. Fulfills laboratory science requirements for AA degree. (SCC)

# CHEM 120 – Organic and Biochemistry for the Health Sciences (5 cr)

This course covers selected topics in organic and biochemistry including organic functional groups; organic reactions; intermolecular forces; structure and function of carbohydrates; lipids and proteins; enzymes; common metabolic pathways; causes and effects of arteriosclerosis; classes of drugs; actions and metabolism of drugs; and interferences and side effects of drugs. Additional topics may include hormone action, membrane properties, molecular immunology, neurotransmitters, muscle contractions and blood clotting. Prerequisite: CHEM& 121 or one year of high school chemistry within the last five years with a 2.0 GPA or better and enrolled in the invasive or noninvasive cardiovascular technology program. (SCC)

#### CHEM& 121 - Intro to Chemistry: w/Lab (5 cr)

A survey of inorganic chemistry for nursing and allied health sciences. Includes atomic structure, bonding periodicity, stoichiometry, gases, equilibrium, solution chemistry and nuclear chemistry. Fulfills laboratory science requirement for AA degree. (SCC, SFCC)

#### CHEM& 122 - Intro to Organic Chem: w/Lab (5 cr)

A survey or organic chemistry including structure, function and chemistry of aliphatic and aromatic hydrocarbons, alcohols, ethers, carboxylic acids, amines and related compounds; mechanisms, and stereochemistry. Fulfills laboratory science requirement for AA degree. Prerequisite: CHEM& 121 or permission of instructor. (SCC, SFCC)

#### CHEM& 123 - Intro to Biochemistry: w/Lab (5 cr)

A brief survey of biochemical principles, including structures of biomolecules, enzymatic catalysis, thermodynamics, metabolic pathways, genetic expression and biotechnology. Fulfills laboratory science requirement for AA degree. Prerequisite: CHEM& 122 or permission of instructor. (SCC, SFCC)

#### CHEM& 140 - General Chem Prep with Lab (5 cr)

A survey course of basic topics in chemistry, which may include philosophy and methods of science, arithmetic calculations, the metric system, unit conversions, atomic theory, chemical bonding, types of reactions, stoichiometry, gases, solutions, acid-base chemistry, nuclear chemistry, kinetic molecular theory, equilibrium and redox. Recommended for students who plan to take CHEM& 161 but have not had High School chemistry or for students that want to fulfill laboratory science requirement for AA degree. (SCC, SFCC)

#### CHEM& 161 - General Chem: w/Lab I (5 cr)

This series offers rigorous instruction in general chemistry. Topics include measurements, atomic structure, ionic and molecular compounds, aqueous solutions and molarity, chemical reactions, stoichiometry, gases, quantum theory and electronic structure, periodicity, chemical bonding, molecular geometry, solid and liquid states, solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility equilibriums, thermo chemistry and chemical thermodynamics, and electrochemistry. Other topics selected at the discretion of the instructor include nuclear chemistry, coordination chemistry, etc. Lab involves both qualitative and quantitative aspects of chemistry with necessary accuracy for such work. Note: the topics in this three-quarter sequence may be presented in various orders depending on the institution and the text used. Students are strongly encouraged to complete all three courses at the same institution to help ensure coverage of the full range of

important topics in general chemistry. Prerequisite: Currently enrolled in or have taken: MATH& 141 or higher level math courses, or permission of instructor. Recommended: One year of high school chemistry with a 2.0 grade or better or CHEM& 110 or CHEM& 140. (SCC, SFCC)

#### CHEM& 162 – General Chem w/ Lab II (5 cr)

This series offers rigorous instruction in general chemistry. Topics include measurements, atomic structure, ionic and molecular compounds, aqueous solutions and molarity, chemical reactions, stoichiometry, gases, quantum theory and electronic structure, periodicity, chemical bonding, molecular geometry, solid and liquid states, solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility equilibriums, thermo chemistry and chemical thermodynamics, and electrochemistry. Other topics selected at the discretion of the instructor include nuclear chemistry, coordination chemistry, environmental chemistry, organic and biochemistry, modern materials, etc. Lab involves both qualitative and quantitative aspects of chemistry with necessary accuracy for such work. Note: the topics in this three-quarter sequence may be presented in various orders depending on the institution and the text used. Students are strongly encouraged to complete all three courses at the same institution to help ensure coverage of the full range of important topics in general chemistry. Prerequisite: CHEM& 161 or permission of instructor. (SCC, SFCC)

#### CHEM& 163 - General Chem w/ Lab III (5 cr)

This series offers rigorous instruction in general chemistry. Topics include measurements, atomic structure, ionic and molecular compounds, aqueous solutions and molarity, chemical reactions, stoichiometry, gases, quantum theory and electronic structure, periodicity, chemical bonding, molecular geometry, solid and liquid states, solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility equilibriums, thermo chemistry and chemical thermodynamics, and electrochemistry. Other topics selected at the discretion of the instructor include nuclear chemistry, coordination chemistry, environmental chemistry, organic and biochemistry, modern materials, etc. Lab involves both qualitative and quantitative aspects of chemistry with necessary accuracy for such work. Note: the topics in this three-quarter sequence may be presented in various orders depending on the institution and the text used. Students are strongly encouraged to complete all three courses at the same institution to help ensure coverage of the full range of important topics in general chemistry. Prerequisite: CHEM& 162 or permission of instructor. (SCC, SFCC)

#### CHEM& 241 – Organic Chem I (3 cr)

This course covers structure, bonding, molecular properties, an overview of organic reactions, and stereochemistry, with emphasis on the nomenclature, physical properties, chemical reactivity mechanisms and chemical reactions of the following organic families: alkanes, cycloalkanes, alkenes, alkynes and alkylhalides. Prerequisite: CHEM& 163 or equivalent and concurrent enrollment in CHEM& 241, CHEM& 251. (SCC, SFCC)

#### CHEM& 242 – Organic Chem II (3 cr)

This course is a continuation of CHEM& 241 in which the study of organic families continues with aromatic compounds (benzene), alcohols, thiols, ethers, epoxides, sulfides, aldehydes and ketones. Spectroscopy (IR, UV, NMR, MS) also are discussed. Prerequisite: CHEM& 241, CHEM& 251 and concurrent enrollment in CHEM& 252. (SCC, SFCC)

# CHEM& 243 – Organic Chem III (3 cr)

This course is a continuation of CHEM& 242 and focuses on the properties and chemical reactivity, mechanisms, nomenclature and spectroscopy of the rest of the organic families which include carboxylic acids and derivatives (acid halides, acid anhydrides, esters, amides, and nitriles), carbonyl alphasubstitution reactions, carbonyl condensation reactions, aliphatic amines, arylamines and phenols. Optional subjects are biomolecules (carbohydrates, amino acids, proteins, lipids, heterocycles and nucleic acids). Prerequisite: CHEM& 242, CHEM& 252 and concurrent enrollment in CHEM& 253. (SCC, SFCC)

#### CHEM& 251 – Organic Chem Lab I (2 cr)

This course involves experiments that demonstrate the techniques used in organic synthesis, isolation and purification of organic compounds. These techniques include recrystallization, extraction, chromatographic techniques, distillation techniques, sublimation, melting point determination and reflux. Prerequisite: Concurrent enrollment in CHEM& 241. (SCC, SFCC)

#### CHEM& 252 – Organic Chem Lab II (2 cr)

This course uses experiments to support lecture in the mechanistic approach of chemical synthesis and instrumentation. Prerequisite: CHEM& 241, CHEM& 251 and concurrent enrollment in CHEM& 242. (SCC, SFCC)

#### CHEM& 253 – Organic Chem Lab III (2 cr)

This course supports the concepts and mechanisms discussed in CHEM& 243 with organic synthesis experiments. Prerequisite: CHEM& 242, CHEM& 252 and concurrent enrollment in CHEM& 243. (SCC, SFCC)

# <sup>166</sup> CHINESE

# CHIN& 121 - Chinese I (5 cr)

Students are introduced to the Chinese language and the current use of simplified characters. Official Mandarin Chinese is used for beginners using Pinyin (Chinese sound system). This course maintains regional standards for competency and vocabulary. Language lab is required. (SCC, SFCC)

# CHIN& 122 – Chinese II (5 cr)

Students continue with the concepts introduced in CHIN& 121 to learn the Chinese language and current use of simplified characters. Official Mandarin Chinese is used for beginners using Pinyin (Chinese sound system). This course maintains regional standards for competency and vocabulary. Language lab is required. Prerequisite: CHIN& 121 or permission of instructor. (SCC, SFCC)

# CHIN& 123 - Chinese III (5 cr)

Students continue with the concepts introduced in CHIN& 122 to learn the Chinese language and current use of simplified characters. Official Mandarin Chinese is used for beginners using Pinyin (Chinese sound system). This course maintains regional standards for competency and vocabulary. Language lab is required. Prerequisite: CHIN& 122 or permission of instructor. (SCC, SFCC)

# CHIN 141 – Chinese Conversation and Culture (5 cr)

This course offers an option for students who are interested in Chinese language and culture. Concepts presented include Taoism, contemporary issues, Chinese cuisine and cooking skills, survival speaking skills and other select topics. (SCC)

# CHIN 224 – Modern China-Educational Tour (3-10 cr)

This course offers students a life-changing, direct cultural experience in China. Interaction with Chinese college students and using the Chinese language to build bridges of understanding between Chinese and American students are emphasized in this course. Prerequisite: CHIN& 121, 141 or permission of instructor. (SCC)

# CHIN 241 – Chinese Conversation and Culture (5 cr)

This course gives students an opportunity to apply new language and cultural skills in group settings and interpersonal conversations. (SCC)

# **CIVIL ENGINEERING TECHNOLOGY**

# CET 111 – Technical Math (8 cr)

This course introduces theory and practical applications of math concepts emphasizing the fundamentals of algebra. Prerequisite: Concurrent enrollment in CET 112 and 113. (SCC)

# CET 112 – Plan Reading (4 cr)

Students learn to read architectural and engineering plans. Practical applications in quantity take off are presented. Prerequisite: Concurrent enrollment in CET 111, 113. (SCC)

# CET 113 – Drafting (4 cr)

Students use hand drafting instruments in pencil and ink techniques in a lab setting. Prerequisite: Concurrent enrollment CET 111, 112. (SCC)

# CET 121 – Applied Technical Math (7 cr)

This course continues with the concepts introduced in CET 111 emphasizing geometry and trigonometry and their applications to surveying and civil engineering. Prerequisite: CET 111 and concurrent enrollment in CET 122, CET 123. (SCC)

# CET 122 - Surveying Theory (5 cr)

Students are introduced to the practices and methods of surveying using instruments. The application of mathematical skills necessary for surveying is emphasized. Prerequisite: Concurrent enrollment in CET 121, CET 123. (SCC)

# **CET 123 – Introduction to Civil Computer Aided Design (6 cr)**

This course introduces the principles of computer aided design and its application to the engineering profession. Prerequisite: CIS 105. (SCC)

# CET 125 – Plan Reading (5 cr)

This course continues with the concepts introduced in CET 112. Architectural, bridge and highway plans are emphasized. An extensive examination of construction methods and terms is presented. Prerequisite: CET 112 or permission of instructor. (SCC)

# CET 133 - Field Surveying (8 cr)

This course introduces practical applications in surveying methods emphasizing the use of surveying instruments and tools to complete level and traverse closures, circular curve layouts, and topographic surveying. Prerequisite: CET 121, 122, 123 and concurrent enrollment in CET 136, 161. (SCC)

# CET 136 – Statics (6 cr)

This course introduces the effect of forces acting on rigid bodies emphasizing the development if the ability to use mathematics to solve practical problems encountered in all engineering disciplines. Prerequisite: CET 121 and concurrent enrollment in CET 133, 161. (SCC)

# CET 137 - Engineering Problems (3 cr)

Students are introduced to computer applications utilized in the solution of engineering problems. Computer software such as spreadsheets and BASIC language for problem solving is emphasized. Graphing, logarithms and statistics are presented. Prerequisite: CET 111, 121, CIS 105. (SCC)

# CET 161 – Land Surveying (5 cr)

Students study the practices and methods of land surveying in depth. State laws, requirements, statues and codes are examined. Prerequisite: Concurrent enrollment in CET 133, 136. (SCC)

# CET 230 - Construction Process I (3 cr)

Students are introduced to the construction industry with discussion of the relationships between the owner, contractor and design professional. Prerequisite: CET 257 and concurrent enrollment in CET 256, 261. (SCC)

# CET 232 – Construction Process II (2 cr)

This course continues with the concepts introduced in CET 230 with emphasis on project scheduling using the critical path method and computer software. Prerequisite: CET 230 and concurrent enrollment in CET 258, 264. (SCC)

# CET 242 – Advanced Surveying (6 cr)

This course introduces advanced concepts in the theory and application of field and office practices required for route surveying and road design. Prerequisite: CET 123, 133 and concurrent enrollment in CET 243, 253. (SCC)

# CET 243 – Advanced Civil Computer Aided Design (6 cr)

This course presents an extensive study and practical application of Land Development Desktop software. Prerequisite: CET 123 and concurrent enrollment in CET 242. (SCC)

# CET 252 – Hydraulics I (6 cr)

This course is an introduction to the theory and practical application of water hydraulics and its relationship to the civil engineering profession. Areas of emphasis include fluid statics, buoyancy and general energy equation for pressure flow, and calculation of major and minor energy losses in pressure flow systems. Prerequisite: CET 253 and concurrent enrollment in CET 254, 257. (SCC)

# CET 253 — Strength of Materials (5 cr)

This course is an introduction to the study of the relationship between external forces acting on elastic bodies and the internal stresses and strains generated by these forces. Practical applications include compression, shear and tension tests on wood and steel samples. Prerequisite: CET 136 and concurrent enrollment in CET 242, 243. (SCC)

# CET 254 — Structures (5 cr)

Students study structural design of beams and columns in wood and steel with a review of building types. Lab applications such as bending tests on wood samples are included. Prerequisite: CET 253 and concurrent enrollment in CET 252, 257. (SCC)

# CET 256 – Hydraulics II (3 cr)

This course continues with the concepts introduced in CET 252 with emphasis on the hydraulics of open channel flow and Manning's equation. Hydrology and storm water management topics are presented. Prerequisite: CET 252 and concurrent enrollment in CET 230, 261. (SCC)

# CET 257 - Construction Materials I (6 cr)

Theory and practical application in the testing and use of construction materials including aggregates and soils is presented. Prerequisite: Concurrent enrollment in CET 252, 254. (SCC)

# CET 258 – Construction Materials II (3 cr)

This course is a continuation of the theory and lab applications presented in CET 257 with emphasis on the use and testing of asphalt and masonry. Prerequisite: CET 257 and concurrent enrollment in CET 232, 264. (SCC)

# CET 261 — Concrete (3 cr)

Students are introduced to the study of concrete as a construction material. Construction specifications and plan reading pertinent to the ICBO Special Inspector exam are presented. Prerequisite: CET 254, 257 and concurrent enrollment in CET 230, 256. (SCC)

# CET 263 – Strength of Materials (5 cr)

This course continues with the concepts introduced in CET 253 with emphasis on the analysis and design of elementary wood and steel structural parts used as beams and columns. Prerequisite: CET 253 or permission of instructor. (SCC)

# CET 264 – Design Project (3 cr)

This course offers a team design project for CET graduating students that includes all of the design and drawing necessary for a specified engineering or surveying project. Prerequisite: CET 243, 252, 254, 257 and concurrent enrollment in CET 232, 258. (SCC)

#### CET 265 – Special Problems (1-10 cr)

Faculty supervise this independent study on a subject agreed upon by the instructor and student. Students may write a technical paper, work out advanced engineering problems, or design and draft a survey or structural project. Prerequisite: Permission of instructor. (SCC)

#### CET 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

CET 267 – Cooperative Education Work Experience (1-18 cr)

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For course description, see Cooperative Education. (SCC)
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CET 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **COMMUNICATION STUDIES**

#### CMST& 101 – Introduction to Communication (5 cr)

This course surveys the field of communication. It teaches students the theories and skills associated with effective interpersonal, small group, and public communication. Emphasis is on in-class activities and on improving the student's confidence in a variety of communication settings. Students receive at least 11 (eleven) hours of instruction in topical research, speech organization and support, and writing expository and persuasive prose for the purpose of oral delivery in an academic setting. Prerequisite: SFCC only: recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# CMST 103 - Effective Listening (3 cr)

Most people assume they are effective listeners; however, according to listening expert Dr. Ralph Nichols, college students test at about 25 percent accuracy in their listening skills. This course is designed to help students assess their listening and learning styles and to develop those skills necessary for success in college and in the job market. (SCC)

#### CMST 104 - College Ambassadors (1-3 cr)

This unique course provides links for students from the U.S. and those who have English as a second language. Students work one-on-one with international students while learning about various cultures and building friendships. Students may not exceed 6 credits for the series. Prerequisite: CMST 227 or permission of instructor. (SCC)

#### CMST 105 - College Ambassadors (1-3 cr)

This unique course provides links for students from the U.S. and those who have English as a second language. Students work one-on-one with international students while learning about various cultures and building friendships. Students may not exceed 6 credits for the series. Prerequisite: CMST 227 or permission of instructor. (SCC)

#### CMST 106 – College Ambassadors (1-3 cr)

This unique course provides links for students from the U.S. and those who have English as a second language. Students work one-on-one with international students while learning about various cultures and building friendships. Students may not exceed 6 credits for the series. Prerequisite: CMST 227 or permission of instructor. (SCC)

#### CMST 107 – ESL Speech (5 cr)

This is an English communication course offered for students whose native language is not English. The emphasis of the course is to learn the sounds, rhythm, stress and intonation of English; to develop listening skills, articulation skills, pronunciation skills; and to practice idiomatic English. (SFCC)

#### CMST 110 - Voice and Articulation (3 cr)

This course teaches students to understand how speech is created with guidance on the improvement of their speech production. Specifically, students discuss and apply principles in breath support pitch, volume, vocal quality and articulation, and principles basic to speaking clearly. May be repeated up to a maximum of 6 credits. (SCC, SFCC)

#### CMST 111 - Voice and Articulation I (4 cr)

Students learn to speak and interact in small group settings. Class discussions on a variety of cultural, social and technical topics, and one-on-one assistance in pronunciation/articulation are emphasized. Presentational skills also are included. Prerequisite: Passing the SLEP test with a minimum score of 50 or permission of instructor. (SCC)

#### CMST 112 – Voice and Articulation II (4 cr)

Students continue the concepts learned in CMST 111 by speaking and interacting in small group settings. Class discussions on a variety of cultural, social and technical topics, and one-on-one assistance in pronunciation/ articulation are emphasized. Presentational skills also are included. Prerequisite: CMST 111, passing the SLEP test with a minimum score of 50 or permission of instructor. (SCC)

# CMST 113 - Voice and Articulation III (4 cr)

Students continue the concepts learned in CMST 111 by speaking and interacting in small group settings. Class discussions on a variety of cultural, social and technical topics, and one-on-one assistance in pronunciation/ articulation are emphasized. Presentational skills also are included. Prerequisite: CMST 112, passing the SLEP test with a minimum score of 50 or permission of instructor. (SCC)

# CMST 114 – Oral Interpretation of Literature (5 cr)

Students in this course develop and implement the fundamental techniques of analysis of literature. Students also will develop and demonstrate their skills in presenting readings from works of prose, poetry and drama. (SFCC)

#### CMST 120 – Practical Communication for Technicians (5 cr)

This course will assist vocational/technical students in improving their listening skills, understanding the importance of a positive attitude and motivation, and increasing basic verbal and non-verbal communication skills. Recommended for first or second quarter students. (SCC)

#### CMST 121 – Job Communication Skills (2-5 cr)

This course is designed to meet the needs of specific professional/technical students with emphasis on attitudes, work ethics, resumes and job interviewing skills. (SCC, SFCC)

#### CMST 127 – Leadership Development (3-5 cr)

Emphasizes integrity and professionalism in the workplace, team-building problem-solving, presentational skills, and selling techniques for success on the job Variable credits. (SCC)

# CMST 204 – College Ambassadors (1-3 cr)

This unique course provides links for students from the U.S. and those who have English as a second language. Students work one-on-one with international students while learning about various cultures and building friendships. Students may not exceed 6 credits for the series. Prerequisite: CMST 227 or permission of instructor. (SCC)

#### CMST 205 - College Ambassadors (1-3 cr)

This unique course provides links for students from the U.S. and those who have English as a second language. Students work one-on-one with international students while learning about various cultures and building friendships. Students may not exceed 6 credits for the series. Prerequisite: CMST 227 or permission of instructor. (SCC)

#### CMST 206 - College Ambassadors (1-3 cr)

This unique course provides links for students from the U.S. and those who have English as a second language. Students work one-on-one with international students while learning about various cultures and building friendships. Students may not exceed 6 credits for the series. Prerequisite: CMST 227 or permission of instructor. (SCC)

#### CMST& 210 – Interpersonal Communication (5 cr)

This course provides an opportunity to learn and apply the theory of interpersonal communication. Learning experiences include work with personal growth, verbal and nonverbal communication skills, active listening, stress management, and resolving communication conflicts to develop healthy personal relationships. (SCC, SFCC)

#### CMST& 220 - Public Speaking (5 cr)

This course teaches students fundamental principles of researching, writing and delivering an effective public address. Students learn audience adaptation and receive at least 11 hours of instruction in the development and composition of formal preparation outlines for expository, persuasive and motivational speeches. Students study and practice a variety of rhetorical techniques suitable for crafting clear, memorable and persuasive prose. They gain confidence as speakers through the study and practice of a wide variety of proven delivery techniques and styles. Prerequisite: SFCC only: recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

## CMST 223 - Intercollegiate Speech and Debate (1-5 cr)

Students prepare for and participate in competitive intercollegiate speech and/or debate. Activities include preparing for debates, presentational speeches, oral interpretation of literature and extemporaneous speaking. May be repeated up to 15 credits. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### CMST 224 – Intercollegiate Speech and Debate (1-5 cr)

Students prepare for and participate in competitive intercollegiate speech and/or debate. Activities include preparing for debates, presentational speeches, oral interpretation of literature and extemporaneous speaking. May be repeated up to 15 credits. Prerequisite: SFCC only: Recommends minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### CMST 225 - Intercollegiate Speech and Debate (1-5 cr)

Students prepare for and participate in competitive intercollegiate speech and/or debate. Activities include preparing for debates, presentational speeches, oral interpretation of literature and extemporaneous speaking. May be repeated up to 15 credits. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### CMST 226 - Gender Communication (5 cr)

This course provides the opportunity to learn and apply theories of gender communication. Learning experiences include work with both verbal and nonverbal communications as they apply to perception, stereotyping, brain and other biological differences, gender and socialization, processing information, differences in communication style, gender communication in friendships, and gender communication in the workplace. (SCC, SFCC)

# CMST 227 – Intercultural Communication (5 cr)

This course is a culture-general approach to intercultural communication. Emphasis is on experiential learning in order to understand and improve intercultural communication at both the domestic and international levels. Students have the opportunity to improve verbal and nonverbal communication skills with different cultures in the community, and to focus on international communication needs. Prerequisite: SFCC only: Recommends minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# CMST& 230 – Small Group Communication (5 cr)

Practical application of problem-solving skills, discussion techniques, task and social roles including leadership are explored. Focus will be on communication behavior in small task-oriented groups. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# CMST 250 - Managing Conflict Through Communication (5 cr)

Understanding conflict is a critical step in the process of managing it. This course emphasizes both theory and practical application to help students manage conflict by utilizing communication skills. Prerequisite: CMST& 210. (SCC)

CMST 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### CMST 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### CMST 280 - Public Relations (5 cr)

An introduction to the basic principles of public relations. Areas of interest will include research, ethics and theory, media, and campaign strategy. Prerequisite: College level reading and writing skills. CMST& 101. (SCC)

# CMST 287 - Business and Professional Communication (3-5 cr)

This course is designed to focus on how interaction skills affect the individual's and the organization's success. Students learn to maintain employment and to benefit the organization through effective communication skills with managers, co-workers and customers. Some topics covered include organizational communication theory and history, interviewing from the interviewer's point of view, culture, working in teams, presenting at work, conflict management and listening skills. Prerequisite: Second-year student or permission of instructor. (SCC)

#### CMST 294 – Special Topics in Speech Communication (3-5 cr)

A communication course with content and scope varying from quarter to quarter according to designation and credits filed in advance of each quarter. (SCC, SFCC)

# COMPUTER APPLICATION TECHNOLOGY TRAINING

#### CATT 102 - Introduction to Outlook (2.5 cr)

Using Outlook, students learn to communicate through e-mail, maintain electronic calendars, schedule meetings, use contacts, customize menus and taskbars, send/receive faxes, and import/export data among applications. (SCC)

# CATT 120 - Microsoft Word I (1-2.5 cr)

Students learn and apply basic functions of Microsoft Word to create, print and edit documents such as letters, tables, memos, reports, labels and envelopes; format characters and paragraphs; insert section and page breaks; add bullets and numbers to lists; and use Word's writing tools. The skills required for the core level of the Microsoft Word MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 120 and 121. (SCC)

#### CATT 121 – Microsoft Word II (1-2.5 cr)

This course is a continuation of CATT 120. Students learn and apply functions of Microsoft Word to add headers, footers, and page numbers to documents; create and modify column structure; use Wizard and templates to create new documents; create and modify tables by adding borders and changing table structure; enhance documents with pictures and charts; and manage files. The skills required for the Core level of the Microsoft Word MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 120 and 121. Prerequisite: CATT 120. (SCC)

#### CATT 122 – Microsoft Access I (1-3 cr)

This course presents theory and application in the basic concepts and terminology of relational database management. Students plan and design databases in addition to building and modifying tables and forms. The skills required for the Microsoft Access MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 122 and 123. (SCC)

#### CATT 123 - Microsoft Access II (1-2.5 cr)

Students learn and apply functions of Microsoft Access to view and organize information, define relationships, produce reports and integrate with other applications. The skills required on the Microsoft Access MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 122 and 123. Prerequisite: CATT 122. (SCC)

# CATT 124 – Advanced Word Processing (5 cr)

This course is a continuation of the concepts introduced in CATT 120 with emphasis on the study of advanced power features and software concepts. Prerequisite: CATT 120 or permission of instructor. (SCC)

# CATT 128 – Desktop Publishing (5 cr)

This introductory course is designed for students with little or no background in desktop publishing. Emphasis is placed on basic concepts and terminology common to popular desktop publishing software. Basic DOS functions used in desktop publishing are introduced. Prerequisite: CIS 110. (SCC)

#### CATT 130 – Introduction to WordPerfect (2 cr)

This course introduces students to basic WordPerfect features and how they are used to create and format a variety of documents. The course is designed for nonbusiness and business majors. Prerequisite: Keyboarding skills. (SCC)

#### CATT 131 - Advanced WordPerfect (2 cr)

The second in a series of courses designed to teach the student ways to enhance documents and productivity using advanced WordPerfect word processing functions. Prerequisite: CATT 130. (SCC)

# CATT 134 – Presentation Graphics (5 cr)

This course covers theory and practical applications in graphics applications software using such skills as shapes, text and charts. The proper use of clip-art, as well as the newest software that promotes video graphics is emphasized. Proofreading, editing, critical thinking and logic skills are utilized. Projects reflect the need in the local business community, so course materials are constantly revised with the latest ideas and technology. Prerequisite: CIS 110 and keyboarding skills and concurrent enrollment in CATT 144. (SCC)

# CATT 138 - Microsoft Excel I (1-2.5 cr)

This course presents the basic functions of Microsoft Excel required to create, modify, format and print spreadsheets. The skills required for the core level of the Microsoft Excel MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 138 and 139. (SCC)

# CATT 139 – Microsoft Excel II (2.5 cr)

This course is a continuation of CATT 138. Students learn to work with worksheets and workbooks, formulas and functions, and to use charts and objects. The skills required for the core level of the Microsoft Excel MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 138 and 139. Prerequisite: CATT 138. (SCC)

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# CATT 140 - Integrated Applications (5 cr)

This competency-based course is a capstone course for the computer user. Skills learned in previous courses are refined and incorporated into practical applications. Prerequisite: CIS 110, 205 and CATT 120, 121, 122, 134 and concurrent enrollment in CATT 150. (SCC)

# CATT 144 - Computer Lab III (2 cr)

This scheduled computer lab presents practical applications of materials presented in CATT 134. The course content includes graphic applications using clip-art and creation of video graphics. Prerequisite: Concurrent enrollment in CATT 134. (SCC)

# CATT 150 - Computer Lab IV (2 cr)

This scheduled computer lab presents practical applications of materials presented in CATT 140. The course content includes switching menus, cutting, copying, pasting, dragging, dropping, inserting and linking. Prerequisite: Concurrent enrollment in CATT 140. (SCC)

#### CATT 161 - Microsoft Word for Windows I (2 cr)

The course introduces Microsoft Windows operating systems. Use of Word application of Microsoft Office Professional software includes entering, formatting, revising, editing, replacing, automatically correcting, checking, changing style, reformatting and printing text. Most documents are prerecorded, so students spend little time keying copy; emphasis is on learning to use the software. Prerequisite: Ability to keyboard by touch at 25 wpm; some computer familiarity desirable. (SCC)

#### CATT 162 - Microsoft Word for Windows II (2 cr)

This is a continuation of CATT 161. The course includes using templates and Wizards, creating, formatting, reformatting varying columns, adding graphics and text emphasis, using outline views for rearranging text, promoting and demoting headings, working with multiple documents and files, using and creating online forms, and creating and printing of merged documents. Most documents are prerecorded, so students spend little time keying copy; emphasis is on learning to use the software. Prerequisite: CATT 161. (SCC)

# CATT 185 - Introduction to Vista and the Internet (2.5 cr)

Students develop the ability to use a Windows Vista operating system and acquire skills to navigate the Internet. Prerequisite: Keyboarding skills. (SCC)

#### CATT 190 - Introduction to PowerPoint (1-2.5 cr)

Students learn and apply the fundamentals of Microsoft PowerPoint to create and modify presentations; and use design templates, the Office Clipboard, Format Painter and Word Art in addition to the drawing tools. Skills required for the PowerPoint MOUS (Microsoft Office User Specialist) certification examination are presented. (SCC)

# CATT 191 – Advanced PowerPoint (2.5 cr)

Students learn and apply advanced features of Microsoft PowerPoint to modify and create presentations by customizing the color schemes, adding charts and graphs, building and modifying organization charts, importing Word and Excel documents, adding links to presentations, and adding animation. The skills required for MOUS (Microsoft Office User Specialist) certification examination are presented. Prerequisite: CATT 190. (SCC)

# CATT 220 - Advanced Microsoft Word I (2.5 cr)

This course is a continuation of CATT 121. Students learn and apply advanced functions of Microsoft Word to create and edit document styles, work with master documents and subdocuments, create and modify a table of contents or index, use tables with embedded worksheets, sort lists, and create and revise footnotes and endnotes. The skills required for the expert level of the Microsoft Word MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 220 and 221. Prerequisite: CATT 121. (SCC)

# CATT 221 – Advanced Microsoft Word II (2.5 cr)

This is the final course in a series covering Microsoft Word and is a continuation of CATT 220. Students learn and apply advanced functions of Microsoft Word to sort and create merged documents such as letters, envelopes and labels; to create, apply, copy, rename and edit macros; to create and modify forms; and to collaborate with work groups through comments, multiple versions and tracking of documents. The skills required for the expert level of the Microsoft Word MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 220 and 221. Prerequisite: CATT 220. (SCC)

# CATT 222 - Advanced Microsoft Access I (2.5 cr)

This course presents advanced Microsoft Access functions including building, modifying tables and forms, and refining queries. Prerequisite: CATT 123. (SCC)

#### CATT 223 – Advanced Microsoft Access II (2.5 cr)

This course is a continuation of CATT 222 and presents advanced Microsoft Access functions with an emphasis on utilizing web capabilities, producing reports, using Access tools and integrating data. Prerequisite: CATT 222. (SCC)

#### CATT 238 – Advanced Microsoft Excel I (2.5 cr)

This course covers advanced concepts for using Microsoft Excel. Students use templates and multiple workbooks; work with toolbars; and record, run and edit macros. The skills required for the expert level of the Microsoft Excel MOUS (Microsoft Office User Specialist) certification examination are presented. Prerequisite: CATT 139. (SCC)

# CATT 239 – Advanced Microsoft Excel II (2.5 cr)

This course is a continuation CATT 238. Students record, run and edit macros; extract data and apply data filters; use analysis tools; and learn to collaborate in workgroups. The skills required for the Expert level of the Microsoft Excel MOUS (Microsoft Office User Specialist) certification examination are presented. Prerequisite: CATT 238. (SCC)

# CATT 241 - Microsoft Project (2.5 cr)

Students develop skills using computer software to plan, execute, control and close a project in order to meet the project's goal. Students use MS Project as a central database to organize all project information. This course focuses on determining tasks and resources, creating project schedules, using Gantt charts and network diagrams to monitor projects, and generating project reports. Prerequisite: CIS 110 or equivalent experience is recommended. (SCC)

#### CATT 242 – Advanced Microsoft Project (2.5 cr)

Using MS Project, students will continue to develop and enhance the skills they learned in CATT 241. Students will use MS Project to track progress, develop reports, integrate Project information with other MS office software, create and use templates and use a master project. In addition, a major emphasis of this class is on the practical application of MS Project through the use of case studies or projects chosen by the students. Prerequisite: Previous or concurrent enrollment in CATT 241 is required. (SCC)

# **COMPUTER INFORMATION SYSTEMS**

# CIS 101 — Technical Introduction to Computer Information Systems (5 cr)

This course introduces technical computer information systems and acquaints students with concepts and knowledge of system software and design, and the hardware used to convert data into information in business world applications. (SCC)

# CIS 105 – Computer Fundamentals for Vocations I (1-5 cr)

This course introduces students to computer concepts in regard to the general elements of computer systems. Content may include DOS commands, computer terminology, data communication concepts, introductory Computer Assisted Drafting (CAD) principles, and the practical applications of relevant application software packages. Course content may vary depending on the individual vocational program needs. (SCC)

#### CIS 110 — Introduction to Computer Applications (5 cr)

The basic principles of computers and business application software including word processing, spreadsheets and database software are introduced in this course. The in-depth study of basic commands and concepts, and the applications of a variety of commercial software are emphasized. (SCC)

#### CIS 111 - XHTML Basics (5 cr)

This course introduces basic concepts of the eXtensible HyperText Markup Language (XHTML). Students learn the technology required to develop and maintain static web sites. Prerequisite: CIS 110 or permission of instructor. (SCC)

# CIS 112 – Graphic Design for the Web (5 cr)

This course provides an in-depth exploration of how to plan, design and execute visually appealing, web-sensitive images. JPEG, GIF, PNG and other formats are discussed. Graphic formats and layouts also are presented. (SCC)

#### CIS 114 – JavaScript (5 cr)

Students build on advanced theories in web development using current web development software. As technology advances in industry, the scripting skills taught in this class provide web developers the ability to create advanced and sophisticated web sites. Prerequisite: CIS 111, 146 or permission of instructor. (SCC)

#### 170 CIS 116 – Active Directories (5 cr)

This course is designed for students who are experienced with Microsoft Windows 2000 Server. Using previously acquired skills, students learn Windows 2000 Active Directories. Topics include planning, configuring and administering an Active Directory infrastructure; configuring Domain Name System (DNS); using group policies; remotely deploying the Windows 2000 operating system; using an Active Directory to centrally manage users, groups, shared folders and network resources; and monitoring and optimizing the Active Directory performance. Prerequisite: CIS 244 or permission of instructor. (SCC)

# CIS 126 - DBMS/SQL (5 cr)

This course introduces ANSI SQL. Students learn the uses of SQL scripting as it pertains to common database management systems such as Oracle, SQL Server or DB2. Students acquire the ability to create, modify and delete data and data structures. Students also learn to implement SQL using web technologies. Prerequisite: CIS 146 or permission of instructor. (SCC)

#### CIS 127 - SQL Server and Transact-SQL (5 cr)

Students learn to design and implement a SQL Server database. Once the relational database is developed, students program web applications using stored procedures created with Transact-SQL. Prerequisite: CIS 126 or permission of instructor. (SCC)

# CIS 130 – Website Design (5 cr)

Students are introduced to the techniques, processes and terminologies for designing a web site from the first concept to the finished, published web site. Planning aspects and basic elements necessary to publish a successful site are emphasized. Prerequisite: CIS 111 and 112 or permission of instructor. (SCC)

# CIS 138 - Home Networking (2.5 cr)

This course introduces the basic terminology, concepts and architecture of computer home networking. (SCC)

# CIS 139 - Small Office Home Office Computer Basics (2.5 cr)

This course prepares students for basic networking in a business setting. (SCC)

#### CIS 146 – Introduction to Programming (5 cr)

Students explore the different architectures of all computer programming languages and compare the similarities and differences. Structured programming theories and concepts, as well as object-oriented theories and concepts, are utilized by students to solve beginning-level computer application problems. The understanding and mastery of the terms, concepts and theories of today's information technology programmers/analysts are the main objectives of this course. Course content varies depending upon the number of credits and topics chosen. (SCC)

#### CIS 147 – Emerging Technologies 1 (1-5 cr)

Students research and evaluate emerging technologies. In addition, students make presentations about the features and uses of web technology to both the class and the entire web development program. This class hones writing, development and presentation skills both as an individual and in team settings. Course content varies depending upon the number of credits and topics chosen. Prerequisite: Permission of instructor. (SCC)

#### CIS 148 – Emerging Technologies 2 (1-5 cr)

Students research and evaluate emerging technologies. In addition, students make presentations about the features and uses of web technology to the class and the entire web development program. This class hones writing, development and presentation skills both as an individual and in team settings. Course content varies depending upon the number of credits and topics chosen. Prerequisite: Permission of instructor. (SCC)

#### CIS 154 - Beginning Flash Development (5 cr)

This course introduces students to the methods and techniques used in the development of multimedia materials and presentations using Macromedia Flash and Freehand, Adobe Photoshop, and other software. Specific emphasis is placed on creating graphic elements as a means of visual communication. Focus is placed on conceptualization and sequencing, analysis of animated graphics, the technology of computer-aided animation, application of visual theory, and organization to principles of animation. Prerequisite: CIS 112 or permission of instructor. (SCC)

#### CIS 205 – Advanced Operating Systems (5 cr)

This course prepares students for entry-level IT support technician positions using computer operating systems. Students learn skills to install, configure and upgrade, diagnose and repair systems. Major features of the Windows operating system and its components, troubleshooting techniques and maintaining systems are emphasized. (SCC)

#### CIS 206 – Introduction to UNIX (5 cr)

This course introduces the UNIX operating system. Students learn to configure the latest version and set up the graphical interface with the X Window System. Many tips and techniques for specific uses of UNIX, such as installing and configuring applications are presented. (SCC)

# CIS 212 – Advanced Report Program Generator Language (RPG) for Business (5 cr)

Students, through hands-on experience, learn and apply advanced concepts of the Report Program Generator (RPG) language in business applications. Processing techniques, utilizing random file processing and multiple file handling are presented, enabling students to prepare structured programs for business-oriented applications. (SCC)

#### CIS 213 – Advanced UNIX (5 cr)

Students with experience in UNIX servers use skills to administer UNIX systems in a network environment. They maintain UNIX systems, configure and troubleshoot the Network File System (NFS), and configure a Network Information Service (NIS) environment. Prerequisite: CIS 206, 240. (SCC)

#### CIS 214 – Beginning Network Security (5 cr)

Students address current issues concerning network security. Topics include introduction to the essentials of network security, why it is necessary, introduction to hacking on a network, security measures to defeat crackers, response to attacks and how to use information gained from an attack. (SCC)

#### CIS 215 – Advanced Active Server Pages (5 cr)

Students learn to develop web applications for Internet/Intranet environments using server-side scripting. Techniques for building pages dynamically, accessing databases easily and creating secure commercial applications are presented. Prerequisite: Permission of instructor. (SCC)

# CIS 216 – Advanced Network Security (5 cr)

This course introduces students to the vulnerabilities of a network through hacking. Hacking of major operating systems such as Microsoft, Novell, Linux and Unix are emphasized in addition to the hacking of network components and services. Different ways and types of attacks that are used by hackers are presented. Prerequisite: CIS 214. (SCC)

### CIS 220 - Securing the Operating System (5 cr)

Students discover the possible vulnerabilities of the network and major operating systems. Methods of locating and repairing damages that occur are emphasized. Prerequisite: CIS 216. (SCC)

#### CIS 230 – PHP Programming (5 cr)

Students learn to create powerful, interactive, database-driven web sites. How PHP scripting language interacts with forms is discussed. Students also learn to generate dynamic pages and data representation is introduced. Prerequisite: CIS 126, 146 or permission of instructor. (SCC)

# CIS 234 – Network Scripting (3 cr)

Students write scripts utilizing Microsoft Visual Basic Scripting Edition (VBScript), Windows Script Host (WSH) and UNIX/LINUX shell scripting languages to manage Windows and Unix/LINUX based systems. Prerequisite: CIS 206, 244. (SCC)

#### CIS 236 – Windows 2003 Network Infrastructure (5 cr)

This course introduces remote access in a Windows 2003 network infrastructure. Students learn to implement, manage, maintain and troubleshoot TCP/IP while addressing, DNS, security and routing. Prerequisite: CIS 244. (SCC)

#### CIS 237 – Internet Information Server Administration (3 cr)

Using Internet Information Server, this course encompasses configuration, management tools, architecture, WWW/FTP/SMTP/NNTP services, security, encryption, digital signatures and indexing. Prerequisite: CIS 236 or permission of instructor. (SCC)

#### CIS 240 - Introduction to Networks (5 cr)

This course introduces the basic terminology, concepts and architecture of computer networking. History, standards, componentry, topologies, benefits, Local Area Networks (LAN), and national and international networks are explained and studied in depth. (SCC)

#### CIS 241 – Novell Administration (5 cr)

This is the first of two courses introducing the basic administration principles of networking. Topics include operating systems overview, file systems management, login and file security, login scripts, directory services management, network printing and installation of applications. Prerequisite: CIS 205 or permission of instructor. (SCC)

#### CIS 242 – Novell Advanced Administration (5 cr)

This is the second of two courses designed as an advanced introduction to the network administration principles of a widespread network operating system. Topics include procedures in network administration, server configuration, management, protocol support, optimization and troubleshooting. NetWare software from Novell is presented. Prerequisite: CIS 241. (SCC)

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#### CIS 243 - Windows XP Professional (5 cr)

This is the first of courses introducing students to the basic administration principles of networking in a Microsoft environment. Topics include operating systems overview, file systems management, login and file systems security, network printing and installation of network applications. Prerequisite: CIS 205 or permission of instructor. (SCC)

#### CIS 244 – Windows 2003 Server (5 cr)

This course introduces managing, maintaining and troubleshooting devices, users, groups, computers, resource access and disaster recovery in a Windows 2003 Server environment. Prerequisite: CIS 205. (SCC)

# CIS 247 – Systems Management (5 cr)

The course gives students hands-on experience maintaining a network using system management software. Students learn to install and configure software; distribute applications on the network; set up policies for workstations and users; control and repair remote workstations; troubleshoot desktops, applications and policies; and maintain a network through a single point of administration. Prerequisite: CIS 244. (SCC)

# CIS 250 – Cisco Networking (5 cr)

Students address issues concerning repeaters, hubs, bridges, switches and routers as well as their functions within the first three layers of the OSI reference model. Concepts of collision domains, addressing media access and the TCP/IP protocol are emphasized. Current networking standards set forth by the Underwriter's Laboratory and how they apply to wiring and networking equipment rooms are discussed. Network address classes, subnetting and network registration are covered in depth. Prerequisite: CIS 240 or permission of instructor. (SCC)

#### CIS 251 – Cisco Network Routing (5 cr)

Students are provided with hands-on experience required to set up small wide area network (WAN) and local area network (LAN) routers. Topics include physical and logical LAN and WAN topologies, network cabling, router commands, Trivial File Transfer Protocol (TFTP) servers, router troubleshooting and minor repairs. Prerequisite: CIS 250 or permission of instructor. (SCC)

#### CIS 252 - Cisco LAN Design (5 cr)

Students learn to design and implement Local Area Networks (LAN) utilizing high-speed switching equipment, Virtual Area Networks (VLAN), workgroup servers and network routing. Prerequisite: CIS 251 or permission of instructor. (SCC)

# CIS 253 - Cisco WAN Design (5 cr)

Students learn to design and implement Wide-Area Networks (WAN) utilizing routers, frame relay, Integrated Switch Digital Networks (ISDN) and Point-to-Point Protocol (PPP). Prerequisite: CIS 252 or permission of instructor. (SCC)

#### CIS 254 – Advanced Flash Development (5 cr)

Students examine major aspects of New Media production. Topics include New Media and interactivity, emerging technologies and digital delivery systems, New Media authoring, 2D and 3D graphics, digital audio and nonlinear digital video editing. The course also emphasizes the use of ActionScript programming to enable advanced interactivity functions in Flash. Prerequisite: ČIS 154 or permission of instructor. (SCC)

#### CIS 255 – BASIC Language for Business (5 cr)

Students utilize and understand the syntax required of BASIC for use in business applications through hands-on experience. Programming utilizing structured methodologies is required. Processing techniques utilizing table concepts, sequential file processing, random file processing, and batch and interactive programming concepts are utilized by students to complete business- oriented application programs. Prerequisite: CIS 101. (SCC)

# CIS 256 — .Net Application Development (5 cr)

Students use the object-oriented, event-driven .NET platform to learn programming concepts in this course. Students plan and create interactive Windows applications. Students also learn to write selection and repetition statements as well as create and manipulate sequential access files, random access files and arrays. Graphical User Interface (GUI) design skills are emphasized throughout this course. Prerequisite: CIS 146 or permission of instructor. (SCC)

#### CIS 257 – Advanced Visual Basic (5 cr)

Students learn to build scaleable applications using distributed COM objects in Visual Basic. Students learn n-tier architecture, object-oriented programming and the development of database driven applications using the ActiveX Data Objects, while covering the advanced features of the Visual Basic programming language. Prerequisite: CIS 256. (SCC)

# CIS 258 — ASP.NET (5 cr)

Students learn to create web-based applications using n-tier architecture to distribute their presentation services, business logic and data services. Students also learn .NET methodologies and object-oriented programming techniques using Visual Basic.NET and Visual C#.NET. Prerequisite: CIS 256, 282 or permission of instructor. (SCC)

# CIS 261 – SQL Database Administration (5 cr)

Using SQL Server, this course encompasses SQL architecture, installation, configuration, login security, permissions, transfer/migration, SQL Server Agent and data replication. Prior understanding of query statements is required. Prerequisite: CIS 126, 244 or permission of instructor. (SCC)

# CIS 262 – SQL Database Design (5 cr)

Using SQL Server, this course encompasses storage architecture, creating/ maintaining indexes, enforcing data integrity, managing locks, creating views, and designing store procedures and triggers. Prerequisite: CIS 261 or permission of instructor. (SCC)

#### CIS 263 – Exchange Server Administration (5 cr)

Using Exchange Server, this course encompasses recipient objects, architecture, configuration, public folders, monitor tools, form administration and client deployment. Prerequisite: CIS 236. (SCC)

#### CIS 264 – Enterprise Mail Design (5 cr)

Using Exchange Server, this course encompasses installation, X.400/X.500 concepts, intra/intersite communications, site connectors and X.400 connectors, directory and public folder replication, and Internet integration. Prerequisite: CIS 263 or permission of instructor. (SCC)

# CIS 265 - Database Programming I (5 cr)

Students learn to expand the concepts used to design and implement a relational database. Once the database is developed, students learn to program n-tier applications using views, user-defined functions, stored procedures and triggers. Prerequisite: CIS 126 or permission of instructor. (SCC)

# CIS 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# CIS 267 — Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# CIS 270 – Principles of Network Security (5 cr)

This course is an introduction to network security. Topics covered relate to general network security, common network attacks and how to safeguard against them, authentication methods, e-mail, directory and file transfers. Prerequisite: CIS 251. (SCC)

#### CIS 271 - Server and Introduction to Wireless Technologies (5 cr)

This course introduces students to advanced-level technical competency of server and introductory wireless issues including planning, installation, configuration, upgrading, maintenance, troubleshooting and disaster recovery. Prerequisite: CIS 205. (SCC)

#### CIS 272 – Agile Software Development (5 cr)

Students will learn about iterative and incremental development techniques found in agile programming methodologies. Students will have hands on experience working in teams and using tools to do source code versioning, testing, refactoring, and continuous integration. Prerequisite: CIS 256, 284 or permission of instructor and concurrent enrollment in CIS 258. (SCC)

# CIS 275 - Networking Capstone (5 cr)

This course is a culmination of the network engineering program in which student's research and evaluate emerging technologies and utilize the knowledge gained through the program. Students complete a research paper on technologies currently used in the networking field. Students also set up a network using current and legacy operating systems/hardware. Prerequisite: Permission of instructor only. (SCC)

#### CIS 276 – Software Development Capstone (5 cr)

Students apply the concepts of structured and object-oriented development to a team project-oriented environment to produce working software. Students choose the appropriate development platform for implementation. Students will work with non-profit organizations, businesses, or college departments in an effort to serve the community. Prerequisite: Permission of instructor. (SCC)

#### CIS 281 - "C" Language for Business (5 cr)

Students utilize the syntax required of "C" for use in business applications. Programming utilizing structured methodologies is required. Processing techniques utilizing table concepts, sequential files processing, random file processing, and batch and interactive programming concepts are introduced. Students create business-oriented application programs. Prerequisite: CIS 101, 255. (SCC)

# 172 CIS 282 – Programming Principles I (5 cr)

Students learn programming fundamentals using the Java platform. Students implement Java with programming concepts using object-oriented terminology. Prerequisite: CIS 146 or permission of instructor. (SCC)

# CIS 283 – Programming Principles II (5 cr)

This course is an extension of CIS 282 and introduces the power of objectoriented programming. Students are challenged to solve problems in an object-oriented fashion. Students learn to extend a class, inheritance and use exceptions, streams and files. Prerequisite: CIS 282 or permission of instructor. (SCC)

# CIS 284 - Ruby on Rails (5 cr)

Students use the Ruby language and Rails web framework to create scaleable and robust web applications. Students learn to develop server-side applications to interface with web pages, making web sites more dynamic and powerful. Prerequisite: CIS 283 or permission of instructor. (SCC)

#### CIS 286 – Voice Over IP (5 cr)

Students acquire an understanding of PSTN basic components and key technologies behind VOIP including speech coding, packet transport and VOIP signaling protocols. Prerequisite: CIS 252. (SCC)

# CIS 288 – Cooperative Education Work Experience (No Seminar)

(1-18 cr) For course description, see Cooperative Education. (SCC)

# CIS 290 — E-Commerce Application Database (5 cr)

Students apply their systems analysis, design and database skills to a team project-oriented setting to produce required deliverable documents used by a DBA. A fully functional database for an E-commerce environment is implemented. Prerequisite: CIS 272, or permission of instructor. (SCC)

# CIS 296 - Final Quarter Project (5 cr)

Students are assigned a web technologies project to include the concepts learned up to the sixth quarter of the A.A.S. degree. Students learn to work with a variety of people in a team environment to fully implement and design a dynamic and interactive web site. Students and the instructor work together while completing the project. Prerequisite: Permission of instructor. (SCC)

# **COMPUTING-COMPUTER APPLICATIONS**

# CAPPS 102 - Introduction to Office (1 cr)

This beginning course is designed for students with no previous computer experience. Students learn the basics of Word, Excel, Access, and PowerPoint software. Students apply learning to various business activities and personal applications. (SFCC)

# CAPPS 104 - Beginning Windows Operating System (1 cr)

This beginning course introduces students to the latest Microsoft PC Operating System. Students learn how to customize, navigate, manage files and folders, and browse the Internet. Students also learn various control features and settings on the computer. (SFCC)

# CAPPS 110 - Word (1-8 cr)

Students may learn beginning, intermediate, and/or advanced concepts and skills using Microsoft Word depending on number of credits. Students apply classroom learning to a variety of activities and scenarios based on real-world business applications. (Repeatable up to 8 credits.) Prerequisite: Minimum Reading Compass Score of 80 OR Reading Asset Score of 40. (SFCC)

# CAPPS 112 - Excel (1-8 cr)

Students may learn beginning, intermediate, and/or advanced concepts and skills using Microsoft Excel depending on number of credits. Students apply classroom learning to a variety of activities and scenarios based on real-world business applications. (Repeatable up to 8 credits). Prerequisite: Minimum Reading Compass Score of 80 OR Reading Asset Score of 40. (SFCC)

# CAPPS 114 - Access (1-8 cr)

Students may learn beginning, intermediate, and/or advanced concepts and skills using Microsoft Access depending on number of credits. Students apply classroom learning to a variety of activities and scenarios based on real-world business applications. (Repeatable up to 8 credits). Prerequisite: Minimum Reading Compass Score of 80 OR Reading Asset Score of 40. (SFCC)

# CAPPS 116 - PowerPoint (1-5 cr)

Students may learn beginning, intermediate, and/or advanced concepts and skills using Microsoft PowerPoint depending on number of credits. Students apply classroom learning to a variety of activities and scenarios based on real-world business applications. (Repeatable up to 5 credits). Prerequisite: Minimum Reading Compass Score of 80 OR Reading Asset Score of 40. (SFCC)

# CAPPS 120 – Outlook (2 cr)

The purpose of this course is to introduce students to the tools needed to send and receive e-mail, organize schedules, maintain contact lists and notes. Students also may learn other tools to manage messaging and business information. (SFCC)

#### CAPPS 130 - Introduction to Web Publishing (1 cr)

This course introduces the student to the use of HTML in creating basic web pages. It is the foundation for continuing studies in web development. Prerequisite: CS 101 or IS 120. (SFCC)

# CAPPS 132 - Frontpage (1 cr)

This self-paced course introduces the student to the use of Frontpage in creating and managing web sites. The course includes features of Frontpage which allow for the development of interactive pages. Prerequisite: CS 101 or IS 120 or permission of instructor. (SFCC)

# CAPPS 222 – Software Update (1-4 cr)

This course is for intermediate to advanced users of Word, Excel, Access, and PowerPoint. Students will learn the most up-to-date features and commonly used tools of the application software and be able to apply new methods to a variety of problem solving activities. (Repeatable up to 4 credits.) Pre-requisite: Permission of instructor. (SFCC)

# **COMPUTING-COMPUTER SCIENCE**

# CS 101 – Computer Literacy (5 cr)

This is an introductory course in computer technology, concepts, operations and applications. Computer terminology is emphasized. It examines the complete system, including hardware, software, data, people and procedures. Students have extensive laboratory exercises in computer operating systems such as exposure to UNIX, DOS and Macintosh; various word processors, spreadsheets, databases and graphics. An exposure to the programming process is provided. Internet and general networking principles are included. Prerequisite: MATH 091, approval of instructor or test placement in MATH 099. (SFCC)

# CS 121 – UNIX/Linux (3 cr)

This course is designed for students with some prior computing experience, especially with some operating system experience. The UNIX/Linux operating system will be installed and explored. Students learn how to navigate and administer Linux / Unix from both the command line and through a graphical user interface. Additional topics include software installation, using Linux applications, security and servers. Prerequisite: Knowledge of another operating system: DOS, VMS, etc. (SFCC)

# CS& 141 – Computer Science I Java (5 cr)

This course is an introduction to the concepts and practices of information representation, computer algorithms, hardware fundamentals, and computer program design and implementation. This course allows students to write, compile, debug, run, analyze and evaluate computer programs written in a current object-oriented language. Prerequisite: MATH& 141 (can be concurrent) or permission of instructor. (SFCC)

# CS 142 – Introduction to Computer Science II (5 cr)

This course continues where Introduction to Computer Science I left off, introducing the student to concepts and practices of information representation, computer algorithms, hardware fundamentals, and computer program design and implementation. This course introduces data structures and algorithms basic to the study of computer science, and object-oriented design and implementation. CS& 141 or permission of instructor. (SFCC)

# CS 211 – C for Programmers (5 cr)

This course is designed to cover the syntax of the "C" programming language in the context of structured programming and with the Linux Operating System. It is intended for students with prior experience in computer programming. This course allows students to apply the "C" language and structured programming concepts to a series of programming problems concerning Makefiles, Graphics API's, System API's, Libraries, and Optimization Tools. Prerequisite: CS & 141 or permission of instructor. (SFCC)

# CS 223 – Programming for IT (5 cr)

This course focuses on fundamental principles of programming and scripting, and presenting unique visual and object-oriented features. The course allows students to become proficient in scripting and programming, and the principles of good program design. Students write and demonstrate simple structured programs, but with well-developed user interfaces. Programming assignments include procedural techniques and event-driven processing. Prerequisite: IS 144, 210. (SFCC)

# COURSE DESCRIPTIONS

# CS 253 – Object-Oriented Programming with C++ (5 cr)

This course is designed to cover the main topics of the "C++" programming language and object-oriented programming. It is intended for students with prior experience in computer programming, in general, and the "C"language in particular. This course allows students to apply the "C++" language and object-oriented concepts to a series of programming problems. Prerequisite: CS 142 and CS 211 or permission of instructor. (SFCC)

# CS 255 – C for Engineers (5 cr)

This course introduces structured computer programming and problem solving, specifically for pre-engineering students, using the C language. Problem examples emphasize numerical solutions common to engineering. Emphasis is placed on programming principles, programming techniques and the process of solving problems using computers. Prerequisite: MATH& 141 (Can be concurrent). (SFCC)

# CS 280 - Data Structures (5 cr)

This course explores data types, abstract data types, and data structures. Efficiency of algorithms is discussed extensively. Sequential and linked lists will be implemented. Students will be able to create, represent, and traverse binary trees. Searching is extensively covered, including dictionaries, priority queues, and hashing. Directed graphs and depth-first algorithms will be introduced. Additional topics include: garbage collection, dynamic storage allocation and sorting. Prerequisite: CS 142. (SFCC)

# **COMPUTING-INFORMATION SYSTEMS**

#### IS 101 – Planning For Information Technology Students (1 cr)

Three main objectives comprise this course. First, inform students of options, outcomes and consequences of information technology education and training programs. Second, lead students in determining their education/ training objectives and developing goals. Finally, prepare specific plans for subsequent education/training. Although concentration on information technology programs at SFCC, other programs are evaluated to determine which are most effective for each student. Students participate in group projects, documenting their research in written and oral reports. Upon completion of the course, students possess a detailed training/education plan. (SFCC)

#### IS 103 – Information Technology Fundamentals (5 cr)

Students learn computing hardware, operating systems and software applications. They learn to perform daily computer operations, including setting up a computer and installing new software. Skills are developed to evaluate and select business computer software and hardware and discuss and compare common operating systems. Hardware management and network terminology are introduced and selected operating systems are available for the students to experience. Prerequisite: IS 120 or permission of instructor. (SFCC)

### IS 105 – Applications for IT I (3 cr)

This course has three objectives. First, inform students about information technology-related applications available and currently used in the industry. Second, teach the use of these applications through projects based creation and completion. Although concentrating on information technology programs, students are assisted in evaluating other applications to determine which are most effective. Students participate in group projects, documenting their research in written and oral reports. Upon completion of the course, students possess detailed, practical experience with some information technology standard applications. (SFCC)

# IS 107 – Applications for IT II (3 cr)

Students build on the skills obtained in IS 105. They expand their knowledge on applications, including word processing, spreadsheets, databases design and management, collaboration applications, and other information technology related applications. Prerequisite: IS 105 or permission of instructor. (SFCC)

#### IS 120 - Business Computer Use (3 cr)

This is an introductory course for those unfamiliar with computers. The course provides an overview of common software applications. The topics include computer operation, computer terminology, word processing, electronic spreadsheets, graphics, database management and telecommunications. (SFCC)

#### IS 132 – Computer Ethics & Law (5 cr)

This class will address basic cyberspace legal issues and policy problems. Specific problems in applying law to cyberspace in areas such as intellectual property, privacy, computer crime, and the bounds of jurisdiction will be explored. (SFCC)

#### IS 140 – Computer and Network Support (5 cr)

This course is a comprehensive, lecture and hands-on course for people who must install and maintain computer systems in a business environment. Hardware technology, operating systems and integration of computers in a network are included in this course. Troubleshooting techniques are studied. **173** Prerequisite: IS 103 or permission of instructor. (SFCC)

#### IS 144 – Programming Fundamentals (3 cr)

Students learn the system design process and the basics of programming logic. They apply that knowledge with the use of current programming tools. Emphasis is based on process rather than on extensive coding exercises. Prerequisite: IS 120 or permission of instructor. (SFCC)

# IS 160 — Internet Fundamentals (1 cr)

This class introduces students to the use of computers for data communications. Students use local area networks (LANs) and telecommunications hardware and software to experience Internet, electronic mail and information services. (SFCC)

# IS 162 – Data Communications and Networks (3 cr)

This is an intensive course covering a broad spectrum of telecommunications topics. Telecommunications processes, principles, protocols and media are discussed in depth. Students use telecommunications and network software, study the pros and cons of various systems. The OSI model is studied. Prerequisite: IS 160 or permission of instructor. (SFCC)

# IS 210 — Internet Programming I (1-5 cr)

Students create web pages using XHTML and other scripting languages. Experience is gained in designing and structuring effective and accessible web pages, including pages with tables, forms and frames. Students format pages using cascading style sheets and advanced concepts, including Applets, Flash, XML and JavaScript for XHTML documents. Credits are determined by the successful completion of modules as required by the program or personal learning goals. This course may be repeated up to a maximum of 5 credits. (SFCC)

#### IS 212 — Internet Programming II (5 cr)

This course applies client-side Internet programming technologies to create dynamic web pages. Students are introduced to basic programming techniques using JavaScript and other scripting languages. Prior training in HTML is required. Prerequisite: IS 210. (SFCC)

# IS 214 — Internet Programming III (5 cr)

This course applies server-side Internet programming technologies to create database-driven web pages. Server-side technologies covered include Active Server Pages (ASP), CGI-PERL, and PHP. Web server environments include Internet Information Server (IIS) and Apache. Prior training in HTML and client-side programming is required. Prerequisite: IS 212. (SFCC)

# IS 216 - Applied XML (3 cr)

This course teaches how data can be shaped using Extensible Markup Language (XML). Students learn to structure valid XML documents, format XML via Cascading Style Sheets, transform XML using XSLT, and apply a highly-developed XML language such as MathML. Special emphasis on current industry uses for XML is provided. Previous knowledge of HTML is required. (SFCC)

#### IS 228 - Internet Servers (5 cr)

This course provides an overview of services installed on an Internet server. Email servers, web servers, database servers will be installed, configured, secured and managed on multiple platforms. Prerequisite: IS 262. (SFCC)

# IS 234 – Computer Forensics I (5 cr)

Students learn to provide a secure computer environment and learn techniques for collecting and analyzing computer-related evidence. This class is designed to train computer technicians in the elements of computer forensics investigation. Prerequisite: IS 132 or permission of instructor. (SFCC)

#### IS 236 - Computer Forensics II (5 cr)

Students learn to provide a secure computer environment and learn techniques for collecting and analyzing computer-related evidence. This class is designed to train computer technicians in the elements of computer forensics investigation. Prerequisite: IS 234 or permission of instructor. (SFCC)

#### IS 244 – Network Security I (5 cr)

Network Security focuses on the fundamental principles of computer and network security. It is a survey of security fundamentals, networks threats, network operating systems security features, firewalls, virtual private networks, encryption and intrusion detection. Prerequisite: Permission of instructor. (SFCC)

#### IS 245 – Network Security II (5 cr)

This course is an introduction to the development of Network Systems defense and countermeasures. Students learn the steps utilized to respond to techniques used to compromise networks. It specifically leads students through the process of learning the foundations of network security, firewall implementation and intrusion detection. Prerequisite: IS 244 or permission of instructor. (SFCC)

# IS 260 — Database Theory (5 cr)

This course serves as a foundation for working with all types of databases. It reviews what a database is and moves into the various database models such as hierarchical, network, relational, entity and object oriented. It also covers design concepts, SQL, normalization and database administration. Prerequisite: CAPPS 114 or permission of instructor. (SFCC)

## IS 262 - Network Management (5 cr)

This is an intensive course in the technical management of computer networks including servers and workstations. Students, who are expected to understand the principles of telecommunications, will learn to install, manage and maintain a network. Microsoft and Linux are the primary software used. However, other Network Operating Systems (NOS) are installed. This course stresses concepts and practical usage of many types of NOS. Prerequisite: IS 162. (SFCC)

#### IS 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

IS 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SFCC)

# **COOPERATIVE EDUCATION**

#### COOP 266 - Cooperative Education Seminar (1-2 cr)

Students study areas such as self-awareness and assessment, career awareness and exploration, career decision making, career planning and placement, success factors and attitudes on the job, motivation and initiative, human behavior and relations, and employability skills. A maximum of six credits are allowed toward any degree. Prerequisite: Permission of instructor/Coordinator. (SCC, SFCC)

#### COOP 267 – Cooperative Education Work Experience (1-18 cr)

This course offers coordinated on-the-job, supervised work experience related to the student's field of study. Students may receive variable credits for hours of structured work experience during a quarter. The credit award is based on a maximum of one credit for every three weekly cooperative education hours during a quarter. See specific program requirements for number of credits allowed. Prerequisite: Permission of instructor/Coordinator. (SCC, SFCC)

# COOP 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

This course offers coordinated on-the-job, supervised work experience related to the student's field of study. Students may receive variable credits for hours of structured work experience during a quarter. The credit award is based on a maximum of one credit for every five weekly cooperative education hours during a quarter. See specific program requirements for number of credits allowed. This course differs from COOP 267 in that it has no seminar requirement. Prerequisite: Permission of instructor/Coordinator. (SCC, SFCC)

# **COSMETOLOGY**

# COS 101 - Introduction to Cosmetology (2 cr)

This course provides introductory concepts in cosmetology. Students learn licensing requirements and state laws, the importance of rest and relaxation, effective communication, and human relationship skills. (SCC)

# COS 111 – Cosmetology, Esthetics and Manicuring Concepts I (5 cr)

Students are introduced to the basic concepts of cosmetology. Theories introduced include manicuring, pedicuring, haircutting, permanent waving, hair styling, coloring, shampooing, rinsing, draping and thermal styling. Bacteriology, sterilization and sanitation also are presented. Prerequisite: Concurrent enrollment in COS 112, APLED 121 or permission of department. (SCC)

# COS 112 – Cosmetology, Esthetics and Manicuring Applications I (12 cr)

Students are introduced to the basic application techniques and clinical practice on models and mannequins in the areas of thermal styling, hair shaping and styling, shampooing, rinsing and conditioning, permanent waving, manicuring and pedicuring. Safety and sanitary measures are emphasized. No more than 25 percent of the services are performed on mannequins. Prerequisite: Concurrent enrollment in COS 111, APLED 121 or permission of department. (SCC)

#### COS 113 – Manicuring Concepts I (4 cr)

Students are introduced to the basic concepts of manicuring. Theories presented include the proper use of implements, cosmetics and materials used in manicures, pedicures, and artificial nail applications. Principles of bacteriology and sanitation methods are emphasized. (SCC)

#### COS 114 – Manicuring Applications I (10 cr)

Students learn basic application techniques and clinical practice on models and mannequins in the following areas: Manicuring, pedicuring, nail preparation, acrylic sculpture, tip application, overlays and nail removal. Sanitation methods utilized in a salon setting are emphasized. No more than 25 percent of all services are performed on models. (SCC)

# COS 115 – Manicuring Concepts II (4 cr)

This course continues with the concepts of manicuring introduced in COS 113. Nail structure, nail diseases and disorders, bacteriology, and sanitation methods are emphasized. (SCC)

#### COS 116 - Manicuring Applications II (10 cr)

Students learn advanced application techniques and clinical practice on models and mannequins in the following areas: Manicuring, pedicuring, nail preparation, acrylic sculpture, tip application, various nail overlays and nail removal. Safety and sanitary methods are emphasized. No more than 25 percent of all services are performed on models. Prerequisite: COS 113, 114. (SCC)

#### COS 119 – Advanced Manicuring Concepts (1 cr)

This course continues the concepts introduced in COS 115 with an emphasis on the safe use of drills, advanced artificial nail applications, nail art and nail enhancements. Prerequisite: COS 113, 115. (SCC)

#### COS 121 – Cosmetology, Esthetics and Manicuring Concepts II (5 cr)

Students are introduced to the basic concepts of skin and nail care, and their disorders and diseases. Chemistry for esthetics, electricity and light therapy also are introduced. Bacteriology, decontamination and infection control are emphasized. Prerequisite: COS 111, 112 and concurrent enrollment in CIS 105, COS 122, ISFTY 111 or permission of department. (SCC)

**COS 122** – **Cosmetology, Esthetics and Manicuring Applications II (11 cr)** Students are introduced to the basic application techniques and clinical practice on patrons for facials, packs, masks, machine facials, massage, temporary superfluous hair removal, eyebrow arching, lash and brow tintings, and artificial lashes. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 111, 112 and concurrent enrollment in CIS 105, COS 121, ISFTY 111 or permission of department. (SCC)

# COS 123 – Esthetics Concepts I (4 cr)

This course introduces students to the basic concepts of skin care, skin disorders and diseases of the skin. Chemistry for esthetics, bacteriology, sanitation and sterilization, and electricity and light therapy are emphasized. (SCC)

#### COS 124 – Esthetics Applications I (10 cr)

Students learn basic application techniques and obtain clinical practice on clients in facials, packs, masks, machine facials, massage, temporary superfluous hair removal, eyebrow arching, lash and brow tinting and artificial eyelashes. No more than 25 percent of all services are performed on models. (SCC)

#### COS 125 – Esthetics Concepts II (4 cr)

This course introduces students to advanced concepts of skin care, skin structure, color theory, makeup techniques and facials with the aid of machines. (SCC)

# COS 126 – Esthetics Applications II (10 cr)

This course introduces students to intermediate application techniques and clinical practice on clients in facials, packs, masks, machine facials, massage techniques, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, artificial eyelash application, make-up application and skin analysis. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 123, 124. (SCC)

#### COS 127 – Advanced Esthetics Concepts (1 cr)

This course provides students with advanced concepts required for success in a cosmetology setting. Advanced topics include body treatments and tinting of facial and body hair. Prerequisite: COS 123, 124. (SCC)

#### COS 129 – Advanced Manicuring Applications (2 cr)

Students are introduced to the advanced concepts of manicuring. Theories presented include the proper use of implements, cosmetics and materials used in manicures, pedicures, nail art and the application of artificial nails. Principles of bacteriology and sanitation methods are emphasized. Prerequisite: COS 113. (SCC)

#### COS 131 – Intermediate Cosmetology I (5 cr)

This comprehensive course introduces intermediate concepts of hair and scalp structures, disorders, and diseases. Haircutting, permanent waving, hair coloring and curl reformation are emphasized. Prerequisite: COS 121, 122 and concurrent enrollment in COS 132 or permission of department. (SCC)

Students are introduced to intermediate application and clinical practice in all aspects of cosmetology with emphasis on permanent waving, hair coloring and cutting techniques, and curl reformation. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 121, 122 and concurrent enrollment in COS 131 or permission of department. (SCC)

# COS 227 – Advanced Esthetics Applications (2 cr)

This course provides students with advanced practice required for success in a cosmetology setting. Students gain practice in advanced topics including body treatments and tinting of facial and body hair. Since this is an advanced application course, students are expected to complete the assigned projects in a given time with pre-established accuracy rates. Prerequisite: COS 123, 124, 125, 126, 127. (SCC)

#### COS 232 - Management and Laboratory Supervision (16 cr)

This course provides training in management and laboratory supervision for cosmetology students. (SCC)

# COS 241 – Intermediate Cosmetology II (5 cr)

This comprehensive course introduces intermediate concepts of hair styling, permanent waving chemistry, and the care and styling of artificial hair. An in-depth review of skin disorders, as well as hair and scalp disorders, is discussed. Prerequisite: COS 131, 132 and concurrent enrollment in APLED 112, COS 242 or permission of department. (SCC)

#### COS 242 – Intermediate Cosmetology Applications II (10 cr)

Students are introduced to permanent waving chemistry, intermediate concepts of hair styling, and the care and styling of artificial hair. An indepth review of skin, hair and scalp disorders is presented. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 131, 132 and concurrent enrollment in APLED 112, COS 241 or permission of department. (SCC)

# COS 251 – Advanced Cosmetology I (5 cr)

This course presents advanced concepts of hair color chemistry and a comprehensive review of haircutting, styling and skin disorders in preparation for the state board exam. Prerequisite: COS 241, 242 and concurrent enrollment in APLED 125, COS 252 or permission of department. (SCC)

#### COS 252 – Advanced Cosmetology Applications I (10 cr)

This course introduces advanced applications and clinical practice in all aspects of cosmetology with emphasis on permanent waving, haircutting, coloring and styling. No more than 25 percent the services are performed on mannequins. Prerequisite: COS 241, 242 and concurrent enrollment in APLED 125, COS 251 or permission of department. (SCC)

#### COS 261 – Advanced Cosmetology II (5 cr)

This comprehensive course prepares students for the state board examination with a complete review of textbooks. Hair chemistry and properties, electricity, nail structures and disorders are emphasized. Prerequisite: COS 251, 252 and concurrent enrollment in COS 262, MMGT 205 or permission of department. (SCC)

# COS 262 – Advanced Cosmetology Applications II (7-10 cr)

This course introduces advanced applications and clinical practice in all phases of manicuring and cosmetology. Hair styling, haircutting and chemical applications are emphasized. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 251, 252 and concurrent enrollment in COS 261, MMGT 205 or permission of department. (SCC)

# COS 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# COS 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# COS 275 – Cosmetology Application (1-5 cr)

This class provides students with additional time in order to meet Cosmetology state licensure requirements of 1600 hours. Prerequisite: Completion of all seven quarters of Cosmetology program, two quarters of manicuring program or two quarters of esthetics program. (SCC)

# COS 284 – Special Projects (1 cr)

Students receive training in instructional methods. Course content varies depending upon the topics chosen. (SCC)

#### COS 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# CREDIT AND FINANCIAL MANAGEMENT

# CRMGT 110 – Introduction to Finance (3 cr)

Principles of finance in the operations of a profit-seeking firm, problems involved in the acquisition and use of funds, sources and instruments of capital and finance, financial organization, and financing of operations from the viewpoints of both supplier and user of funds. Prerequisite: ACCT & 201 or permission of instructor. (SFCC)

## CRMGT 140 – Financial Statement Analysis (3 cr)

Tools and techniques necessary for evaluation of financial and operating performance of a modern business enterprise. Subjects include statement spreading, basic concepts and ratio analysis, trend analysis, external analysis, short-term liquidity and solvency, financial strength, and asset utilization. Prerequisite: ACCT & 201 or permission of instructor. (SFCC)

# CRMGT 150 - Introduction to Investments (2 cr)

An introduction to the world of stocks, bonds, mutual funds, commodities and real estate. Course focuses on investment goals, alternatives, information, process and portfolio management. (SFCC)

# CRMGT 190 - Business Credit Principles (3 cr)

This course provides an introduction to the overall field of credit in the U.S. economy. It examines both consumer credit and commercial credit from the standpoint of providers. The course covers the role of credit, types of credit, credit administration, examination, evaluation, and collection and credit files. (SFCC)

#### CRMGT 220 - Credit Law/Collection Techniques (3 cr)

This course provides an introduction to credit technology. Emphasis is on solving case problems and actual credit situations. Techniques for more effective, timely collections including letters, telephone calls, personal visits and legal remedies are explored. Basic consumer and commercial credit laws for managers are considered. Prerequisite: CRMGT 190 or permission of instructor. (SFCC)

# **CRIMINAL JUSTICE**

#### CJ& 101 – Intro to Criminal Justice (5 cr)

This course is an overview of the scope of the law enforcement officer's role. Jurisdiction of local, state and federal agencies, career opportunities and qualifications for recruitments are emphasized. (SCC)

#### CJ 102 – Administration of Justice (5 cr)

Students explore the processes of criminal justice in this course. The court system, corrections, juvenile justice and the law officer's role are emphasized. (SCC)

# CJ 103 – Police Organization and Administration (3 cr)

Students are introduced to principles, concepts and theories relating to police organization and administration within line and staff functions in the uniform and investigative units. (SCC)

#### CJ 104 – Crime Scene Diagramming (5 cr)

The course emphasis is on the reconstruction of traffic collision scenes and crime scenes. This course prepares students to accurately diagram collision and crime scenes using standard measuring equipment and computer based hardware and software, to aid investigations and prepare exhibits for court. (SCC)

#### CJ& 105 – Intro to Corrections (5 cr)

Principles and practices of the corrections field are explored in this course. Objectives of probation and parole with an overview of rehabilitation methods and institutional settings are emphasized. (SCC)

#### CJ 106 – Introduction to Juvenile Control (3 cr)

This course covers the elements, functions and purpose of juvenile law. Arrest, detention, petition, records, interviewing interrogation, overview of contributing factors to delinquency and the officer's role in prevention are emphasized. (SCC)

#### CJ 107 – Dynamics of Deviant Behavior (5 cr)

Students identify, compare and analyze common behaviors exhibited by offenders in corrections. (SCC)

## CJ 108 – Introduction to Traffic Investigation (3 cr)

Students gain basic skills and knowledge in traffic accident investigation. Practical applications and techniques required to conduct a field investigation are emphasized. Basics of traffic control and traffic laws also are presented. Prerequisite: CJ& 101, 102, 104. (SCC)

# CJ 132, 133, 241, 242, 243 – Criminal Justice Physical Training (1 cr ea)

The concepts of personal physical training development are explored in this course. Students work at an individualized pace building their fitness required by Washington State Law Enforcement Standards. Students are required to be enrolled in law enforcement physical training during each quarter of attendance. Prerequisite: Students must have medical insurance and a doctor's release if needed; fitness assessment required. If assessed below minimum fitness level, CJ 208 is recommended. Concurrent enrollment in PE 186 for audit. (SCC)

# CJ 150 – Criminal Justice Report Writing (3-5 cr)

This course presents technical writing content specific to the criminal justice system. Students learn standard grammar/punctuation and basic composition skills. The content is chosen from a menu that may include, but is not limited to, the following: standard police reports where information may be obtained from investigations, interrogations or other written reports; forms such as traffic citations, traffic accidents or evidence tags; and a variety of technical reports related to law enforcement. (SCC)

# CJ 200 - Officer's Survival (5 cr)

Students develop principles and skills of risk management as related to daily patrol situations. Skills include cover vs. concealment, command, contain, control and coordination, as well as communication, background and kill zone tactics. Students' skills are tested in a series of real-to-live police situations (field problems). Prerequisite: CJ 150, 201, 205, 237. (SCC)

#### CJ 201 - Laws of Arrest, Search and Seizure (5 cr)

Concepts of how to conduct a lawful arrest; search and seizure of suspects and evidence; and practicalities of conducting a search of persons, cars and houses are emphasized in this course. Prerequisite: CJ& 101, CJ 102. (SCC)

#### CJ 203 – Police Interviewing Techniques (3 cr)

The use of scientific interrogation aids are introduced in this course. Complaints, witnesses, psychological implications, admissions, confessions and statements are explored. (SCC)

# CJ 205 – Introduction to Criminal Law (5 cr)

Basic concepts of Title 9 and 9A of the Revised Code of Washington are presented in this course. Elements, purposes and functions of criminal law are emphasized. Prerequisite: CJ& 101, CJ 102. (SCC)

#### CJ 208 - Criminal Justice Fitness Seminar (3 cr)

Personal physical training and nutrition are explored in this course to prepare students for the rigors of CJPT courses. Students work on fitness training and nutrition specifically required to bring them to a level of fitness required to successfully train with CJPT students and to ultimately reach appropriate standards of fitness required for entrance to law enforcement or corrections academies. May be repeated up to a maximum of 6 credits. CJ 208 may be substituted up to two times, to meet graduation requirements for any of the following courses: CJ 132, 133, 241, 242 or 243. Prerequisite: Concurrent enrollment in PE 186 for audit. (SCC)

#### CJ 209 – Human Relations (3 cr)

Students develop objective approaches to human relations problems. Students must demonstrate the ability to exercise skills in personal power and nonjudgmental communication skills. (SCC)

# CJ 210 - Police Psychology (3 cr)

Theories of perception, emotion, motivation, personality and nonverbal communication used as tools by police officers in everyday contacts are introduced in this course. Understanding behavior and predicting human behavior in common police situations are emphasized. (SCC)

#### CJ 211 – Crime Scene Investigations (6 cr)

This comprehensive course covers all aspects of crime scene investigations. Areas of emphasis include fundamentals and techniques of investigations; crime scene search; field applications in the development, collection and preservation of physical evidence. Classification and rules of evidence, admissibility, weight and value of evidence, witnesses, and presentation of evidence in court also are included. Prerequisite: CJ 104, 150, 201, 203, 205. (SCC)

# CJ 212 - Professional Development (1 cr)

A variety of self-development activities are provided throughout this course to assist students in gaining employment after graduation. Activities include civil service examinations, both written and oral, and exercises in professional conduct. This course is required in one of the students' last two quarters prior to graduation. Corrections students must take this course in each of their last three quarters of attendance. (SCC)

# CJ 215 - Corrections-Security-Practice and Procedure (5 cr)

Students learn to perform necessary security and procedural functions, operate security devices and understand inmate management principles utilized in security settings. (SCC)

#### See program/course abbreviation key on page 143.

# CJ 216 — Communication Techniques with the Incarcerated Offender (5 cr)

This course integrates an array of communications skills and techniques that are used effectively when working with offenders in correctional settings. (SCC)

### CJ 225 – Advanced Techniques in Correctional Programming (5 cr)

Students engage in the process of studying, practicing and evaluating correctional program and treatment approaches. (SCC)

#### CJ 227 – Minority Studies (5 cr)

Students study and participate in discussions of ethnic history, cultural conflicts and legal rights issues, and how they affect the offender. (SCC)

# CJ 228 – Ethics - Standards of Conduct (3 cr)

Issues of attitudes, professional responsibility, ethics of professional relationships and personal appearances are incorporated in this seminar format. Interaction with offenders and professionals in the field is included. (SCC)

#### CJ 230 – Institutional Programming (3 cr)

Students develop program plans, learn prisoners' rights, and supervise and manage inmates. (SCC)

# CJ 235 — Firearms Safety (2 cr)

Students explore the handling and use of firearms. The development of skills in safety and proficiency in the basic firing positions is emphasized. This course is not designed for students to develop qualifying proficiency. Prerequisite: Permission of instructor and concurrent enrollment in CJ 236. (SCC)

#### CJ 236 - Firearms Qualifications (2 cr)

Students develop marksmanship ability in this course. Students passing the firearms course attain the qualifying score on the approved P.P.C. course. Prerequisite: Permission of instructor and concurrent enrollment in CJ 235. (SCC)

#### CJ 237 - Criminal Justice Self-defense (3 cr)

Students study weaponless defense of police officers emphasizing mental control of suspects, crowd control and proper use of the police baton. Prerequisite: Students must pass one quarter of criminal justice physical training with a 2.0 or higher. (SCC)

# CJ 250 - Career Assessment (2 cr)

The course emphasis is on gathering and documenting career related training and experience in a portfolio that will be assessed for comparable academic credit. Prerequisite: Basic Computer Skills Recommended. Permission of instructor and evidence of employment required and concurrent enrollment in CJ 251. (SCC)

# CJ 251 – Career Development (2 cr)

The course emphasis is on using the assessment and credit award from CJ 250 to develop a plan to finish and Associate or Bachelor Degree. Prerequisite: Basic Computer Skills recommended. Permission of instructor and evidence of employment required and concurrent enrollment in CJ 250. (SCC)

# CJ 265 — Service Learning Volunteer Project (3 cr)

This course enhances learning by connecting academic subjects to real world experience thus fostering civic duty and citizenship. Students fill community needs with direct, meaningful work enabling them to help others and give of themselves through volunteer service. (SCC)

CJ 266 - Cooperative Education Seminar (1-2 cr)

- For course description, see Cooperative Education. (SCC)
- CJ 267 Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

CJ 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **CULINARY ARTS**

# CUL 101 – Ice Carving (1-3 cr)

Students learn the fundamentals of ice carving, how to work with power and hand tools, pattern designs, ice block preparation. Each student produces one ice carving using a design of their choice. Lab fees cover the cost of ice blocks used in the course. Prerequisite: Permission of instructor or counselor. (SCC)

# CUL 110 – Introduction to Culinary Arts (5 cr)

Students learn basic cooking principles including modern kitchen organization, standards of professionalism, and the tools and equipment used in the cooking process. (SCC)

# CUL 113 - Introduction to the Food Service Industry (10 cr)

Students learn theory and practical applications in dining room service and procedures. All aspects of dining room service and management are addressed in a dining room setting. (SCC)

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#### CUL 114 - Dining Room and Banquet Management (5 cr)

Theory and practical applications in the organization and management of dining rooms and banquets. (SCC)

# CUL 115 – Food Sanitation (3 cr)

Students are introduced to basic food service sanitation principles with emphasis on cleaning/sanitation methods and the safe storage of food. (SCC)

# CUL 116 - Nutrition for Culinary Arts (3 cr)

This course introduces students to the characteristics, functions, and food sources of major nutrients and how to maximize nutrient retention in food preparation and storage. Digestion, energy needs, recommended daily allowances and dietary guidelines are emphasized. (SCC)

#### CUL 123 – Espresso (1-2 cr)

This course introduces students to the techniques and procedures required to successfully operate an espresso stand. (SCC)

# CUL 124 – Cooking Applications I (7-10 cr)

This course continues with the concepts introduced in CUL 110. Students work with raw materials, preliminary cooking and flavoring, and apply a variety of cooking methods including the preparation of stocks, soups, salads, and vegetable and starch products. Prerequisite: Permission of instructor or counselor. (SCC)

# CUL 125 - Hospitality Purchasing (2 cr)

Students are introduced to the procedures used in the purchase of foods in quantity. The selection and procurement methods utilized in the hospitality industry are emphasized. (SCC)

### CUL 126 - Food Science (5 cr)

This course emphasizes basic cooking methods including the preparation of soups, stocks and sauces; meat, fish and poultry; vegetables, fruits and starches; as well as an introduction to breakfast and baking preparation. Prerequisite: Permission of instructor or counselor. (SCC)

# CUL 127 – Banquet Service (2 cr)

Students study theory and learn practical applications in the organization and management of banquets. (SCC)

# CUL 130 – Advanced Cooking Applications (7 cr)

Students learn practical applications in the methods used to create soups, sandwiches, salads and wrappers. (SCC)

# CUL 131 – A la Carte Service (9 cr)

This course introduces practical applications in the methods used to provide exceptional a la carte services in a variety of settings. Prerequisite: Concurrent enrollment in HM 130. (SCC)

#### CUL 134 – Cooking Applications II (10 cr)

Students continue with the concepts introduced in CUL 123 with an emphasis on the creation of a buffet menu from concept through execution. The development of group leadership skills is addressed. (SCC)

#### CUL 243 - Theory of Restaurant Baking (5 cr)

Students are introduced to the basic principles of restaurant baking with emphasis on ingredients, yeast dough formulas and techniques, and the mixing and baking of a variety of breads, pies and pastries. (SCC)

# CUL 244 - Restaurant Baking Applications (10 cr)

Students are introduced to the preparation of baked goods, desserts and pastries, and the acquisition of baking skills and artistic abilities. Production techniques also are addressed. (SCC)

#### CUL 253 – Advanced Cooking Theory (5 cr)

Students are introduced to the composition and structure of meats with emphasis on the identification of primal cuts and their relationship to meat selection and cooking methods. Fundamentals of sauce making also is addressed. (SCC)

#### CUL 254 – A la Carte Cooking I (10 cr)

Students use the skills acquired in CUL 124 and develop more technical skills necessary to cook foods to exceptional levels on a consistent basis while working in a professional kitchen. (SCC)

# CUL 255 – Menu Planning (3 cr)

Students are introduced to the composition of menus including the areas of purchasing procedures, merchandising, servicing and pricing of foods. Planning a functional, operative menu using appropriate menu copy and layout is emphasized. Prerequisite: Concurrent enrollment in APLED 121. (SCC)

#### CUL 260 - Presidential (1 cr)

Methods used to provide formal service in a variety of elegant settings are addressed in this course. (SCC)

#### CUL 262 - Dining Room Management (1 cr)

Introductory concepts in the organization and management of dining rooms are addressed in this course. (SCC)

#### CUL 263 – Theory of Modern Cuisine (5 cr)

Students are introduced to the cooking principles commonly utilized in the preparation of ethnic and international cuisines. (SCC)

# CUL 264 – A la Carte Cooking II (9 cr)

This course continues the concepts introduced in CUL 254 and emphasizes the selection of appropriate cooking methods and the handling, cutting and cooking of a variety of meats and fish products. (SCC)

# CUL 265 – Hospitality Cost Controls (5 cr)

Students are introduced to the principles and procedures involved in an effective system of food, labor and sales income control. The development and use of standards, and the calculation of actual costs are emphasized. Pre-requisite: Successful completion of first year culinary coursework. (SCC)

#### CUL 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

CUL 267 – Cooperative Education Work Experience (1-4 cr)

For course description, see Cooperative Education. (SCC)

CUL 288 – Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **DENTAL ASSISTING**

#### DENT 111 – Introduction to Dental Assisting (5 cr)

This course is an introduction to the techniques of chairside assisting using principles of four-handed dentistry, instrumentation, maintenance of equipment and administration of local anesthetic. Prerequisite: Concurrent enrollment in DENT 112, 116. (SCC)

#### DENT 112 – Chairside Related Theory (4 cr)

This course is an introduction to the role of the dental assistant as a member of the dental health team. Techniques and principles of preventive dentistry and microbiology as they relate to aseptic techniques in the dental office are emphasized. Infection control, safety standards and hazardous waste management are addressed. Prerequisite: Concurrent enrollment in DENT 111, 116. (SCC)

#### DENT 114 – Introduction to Dental Radiology (3 cr)

This course offers instruction in the basic principles of radiography physics, modern intraoral dental radiographic techniques, arrangements and care of darkroom equipment, composition and preparation of solutions, procedure for processing films, mounting films, mannequin practice in exposing films, patient interproximal X-rays for diagnostic purposes, radiation protection and safety guidelines. Prerequisite: Concurrent enrollment in DENT 111, 112, 116. (SCC)

#### DENT 116 – Dental Restorative Techniques (3 cr)

This course offers instruction in the physical properties, manipulation and uses of dental materials commonly used in restorative dental procedures. Maintenance of equipment used in the laboratory is emphasized. Prerequisite: Enrolled in first quarter of the dental assisting program. (SCC)

#### DENT 118 - Dental Anatomy (4 cr)

Students learn interrelationships of body structure and functions of all body systems, head and neck anatomy, oral embryology, histology, tooth morphology and dental charting. (SCC)

# DENT 121 – Intermediate Chairside Assisting (6 cr)

This course continues with the concepts learned in DENT 111 emphasizing the procedures and instruments of the recognized specialties. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 122. (SCC)

#### DENT 122 – Chairside Related Theory (4 cr)

This course offers instruction in nutrition and dietary counseling as part of dental treatments, applied pharmacology, dental pathology and emergencies in a dental office. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 121. (SCC)

#### DENT 123 – OSHA Refresher Course for Dental Personnel (1 cr)

This course is designed to provide updated information regarding OSHA regulations as they pertain to the dental profession. This course is offered as an on-line course only. (SCC)

#### DENT 124 – Advanced Dental Radiology (2 cr)

This course offers instruction in advanced techniques of dental radiology, anatomical landmarks and dental anatomy pertaining to dental radiology. Practice taking full-mouth radiographs on children and adults for diagnosis by a dentist and evaluation of films are emphasized. Instruction in maintenance of automatic processors, duplicating, panoramic techniques and equipment also is offered. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 121, 122. (SCC)

# DENT 126 — Dental Restorative Techniques (4 cr)

This course offers instruction in the physical properties and manipulation of dental materials used in diagnostic and prosthetic procedures. Appropriate instrumentation also is included. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 121, 122. (SCC)

# DENT 129 - Chairside Clinical Experience (2 cr)

Students acquire clinical practice in handling patients and assisting in four-handed dentistry procedures. The clinical instruction is conducted in selected private dental offices. Clinical assignments are designed to enhance students' competence in performing dental assisting functions. General dentistry is emphasized. Seminars are devoted to evaluation of the clinical experience, discussion of communication in the dental practice and attitude of the dental assisting student. Prerequisite: Successful completion of second quarter with 2.0 GPA or better and satisfactory progress in DENT 121, 122, 124, 126. (SCC)

## DENT 131 - Advanced Chairside Assisting (6 cr)

This course offers instruction and practical application of procedures permitted the dental assistant in the State of Washington according to the current State Dental Practice Act. Prerequisite: Successful completion of second quarter. (SCC)

#### DENT 136 - Dental Restorative Techniques (2 cr)

This course offers advanced instruction in the physical properties and manipulation of dental materials involved in prosthetic procedures. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131. (SCC)

#### DENT 138 - Office Management (3 cr)

Students learn the nonclinical functions that dental auxiliaries are required to perform emphasizing communications, scheduling, appointments, making financial arrangements, collection techniques, recalls, completion of insurance forms, maintaining an inventory and supply system, and familiarization with computer programs used in dentistry. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131. (SCC)

# DENT 139 - Chairside Clinical Experience (8 cr)

Students acquire clinical practice to perfect their competence in performing dental assisting functions that take place under the direct supervision of dentists in private practices, specialties and dental clinics. The major portion of students' time is spent actually assisting or actively participating in patient care. Seminars are held to evaluate and review clinical applications. Prerequisite: Successful completion of second quarter with 2.0 grade or better and satisfactory progress in DENT 131, 136, 138. (SCC)

#### DENT 141 - EFDA Review Class (5 cr)

This course is designed to provide the Certified Dental Assistant (CDA) review for the Expanded Function Dental Auxiliary (EFDA) course content. The course includes the evaluation of the student's ability to perform skills under the dentist's general supervision to include: Patient oral health instruction; coronal polishing; fluoride treatments; sealants; expose, process and mount dental radiographs. Prerequisite: Successful completion of the Dental Assistant program with a 2.0 grade or better. Admission to the program and concurrent enrollment in DENT 142, 144, 145, 148. (SCC)

#### DENT 142 - EFDA Review Lab (2 cr)

This course is designed to provide the Certified Dental Assistant (CDA) review for the Expanded Function Dental Auxiliary (EFDA) course content. The course includes correct ergonomic positioning and skills on typodonts and/or simulated patients. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 144, 145, 148. (SCC)

# DENT 144 – EFDA Amalgam Restorations (2 cr)

This course is designed to focuses on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 142, 145, 148. (SCC)

# DENT 145 - EFDA Amalgam Lab (4 cr)

This course is designed to focuses on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the lab portion of amalgam restoration. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 142, 144, 148. (SCC)

#### DENT 148 – EFDA Amalgam Clinical (3 cr)

This course is designed to focuses on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the clinical portion of amalgam restoration. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 142, 144, 145. (SCC)

## DENT 151 - EFDA Composite Restorations (3 cr)

This course is designed to focuses on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of composite, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 152, 154, 155, 158, 160. (SCC)

# DENT 152 – EFDA Composite Lab (4 cr)

This course is designed to focuses on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of composite, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the laboratory portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 154, 155, 158, 160. (SCC)

#### DENT 154 - EFDA Composite Clinical (3 cr)

This course is designed to focuses on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of composite, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the clinical portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment DENT 151, 152, 155, 158, 160. (SCC)

#### DENT 155 - EFDA Impressions/Provisional (3 cr)

This course is designed to focuses on the didactic, laboratory components of the taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 152, 154, 158, 160. (SCC)

#### DENT 158 - EFDA Impressions/Provisional-Lab (2 cr)

This course is designed to focuses on the didactic, laboratory components of the taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications. This course includes the laboratory portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 152, 154, 155, 158, 160. (SCC)

#### DENT 160 - EFDA Exam Preparation (3 cr)

This course is designed to focuses on the didactic, laboratory components of the taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications. This course includes the examination portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 152, 154, 155, 158. (SCC)

# **DIAGNOSTIC MEDICAL SONOGRAPHY**

# SONO 111 – Diagnostic Ultrasound I (2 cr)

This course is an introduction to the field of diagnostic sonography and the role of the sonographer. The importance of professionalism, ethical and legal issues including AIDS and written communications is stressed. Various types of sonographic procedures will be discussed with their applications to abdominal scanning. Various discussion groups and tours are an integral component of this course. Prerequisite: Admission to the Diagnostic Medical Sonography program and concurrent enrollment in SONO 121, 125. (SCC)

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This course is an introduction to basic vascular anatomy of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the physiology of these systems. An introduction to the concepts essential for the performance and interpretation of vascular exams is also included. Laboratory experience is required. (SCC)

### SONO 121 - Human Cross-Section Anatomy (4 cr)

Transverse and sagittal cross-sectional anatomy of the human body is compared to the tomographic images obtained by ultrasound, magnetic resonance (MR) and computed tonography (CT). Emphasis is placed on gross human anatomy as sliced into tomographic planes and the tissue characteristics that create image variations. Laboratory experience is provided. Prerequisite: Admission to Diagnostic Medical Sonography Program and concurrent enrollment in SONO 111, 125. (SCC)

# SONO 125 - Ultrasound Physics and Instrumentation I (5 cr)

This course emphasizes ultrasound physics, the physics of waves, sound transmission, attenuation, pulse wave principles, transducer and ultrasound systems operations. Prerequisite: Admission to Diagnostic Medical Sonography Program and concurrent enrollment in SONO 111, 121. (SCC)

#### SONO 131 - Diagnostic Ultrasound II (5 cr)

This course is an investigation of the application for ultrasound in the abdomen, small parts and intraoperative. The pathophysiology of the abdomen, small parts and intraoperative applications is discussed. Emphasis is on the technique and image assessment. Both normal and abnormal anatomy is identified. Laboratory experience is provided. Prerequisite: Concurrent enrollment in SONO 135. (SCC)

#### SONO 135 - Ultrasound Physics and Instrumentation II (5 cr)

This is a continuation of the concepts introduced in SONO 125. Ultrasound physics with emphasis on the Doppler techniques, artifacts, and utilizing instrumentation to investigate the principles of Doppler technique and artifacts. Prerequisite: Admission to Diagnostic Medical Sonography Program and concurrent enrollment in SONO 131. (SCC)

# SONO 141 – Diagnostic Ultrasound III (5 cr)

Ultrasonic procedures and techniques utilized within the OB/GYN specialty are discussed. Scanning techniques, pathology and ethical issues are also included. Laboratory experience is provided using ultrasound simulation to develop normal and abnormal anatomy identification. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 131. (SCC)

# SONO 142 – Sonography Clinical Preparation (4 cr)

Basic scanning skills are developed by imaging normal's within the ultrasound laboratory; patient care skills are also included. The role and responsibilities of the sonographer and their job description is evaluated. Clinical requirements are defined and discussed. (SCC)

#### SONO 143 – Sonography Clinical I (6 cr)

Students are introduced to the clinical environment by spending four weeks in the clinical setting under the direction of a staff sonographer. Weekly clinical seminars are conducted with faculty. A clinical consciousness is developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 142. (SCC)

# SONO 251 – Advanced Sonography (6 cr)

Advanced applications of ultrasound in the assessment of pathophysiology found within the abdominal scan, small parts and intraoperative scans, and OB/GYN scans are discussed. Emphasis is placed on the identification of anatomy and physiology as identified in the abnormal situation using ultrasound. Laboratory experience is provided using simulators to identify various pathological conditions. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 253. (SCC)

# SONO 253 – Sonography Clinical II (7 cr)

This course provides hands-on experience in the hospital and clinical environment. Emphasis is placed on the development of clinical techniques in the use of current ultrasound instrumentation in the evaluation of an acquired disease. Students then apply the principles of medical legal ethics and professionalism to the patient, physicians and other members of the health team. Clinical case reports are required. Prerequisite: Admission to Diagnostic Medical Sonography program concurrent enrollment in SONO 251. (SCC)

#### SONO 263 – Sonography Clinical III (13 cr)

This course provides hand-on experience in the hospital and clinical environment. Emphasis is placed on the development of clinical techniques in the use of current ultrasound instrumentation in the evaluation of an acquired disease. Students then apply the principles of medical legal ethics and professionalism to the patient, physicians and other members of the health team. Clinical case reports are required. Prerequisite: Admission to Diagnostic Medical Sonography program. (SCC)

# SONO 273 – Sonography Clinical IV (13 cr)

This course is a continuation of SONO 263. This course is a full-time clinical internship and is completed in an affiliated local or out-of-town hospital, clinic or physician's office. Emphasis of this course is on the clinical skills necessary for the performance of and evaluation of the various sonography procedures. Written reports, review of current literature and attendance at conferences is required. Prerequisite: Admission to Diagnostic Medical Sonography program. (SCC)

# **DIESEL/HEAVY DUTY EQUIPMENT**

# HEQ 101 - Trucking Theory (2-4 cr)

This course introduces students to the concepts required to train and retain professionally skilled tractor-trailer drivers. Emphasis is placed on the knowledge and procedures needed by for safe operation by the professional driver. Prerequisite: Concurrent enrollment in HEQ 102. (SCC)

# HEQ 102 – Trucking Applications (4-6 cr)

This course is a continuation of HEQ 101 with emphasis on the application of the theory presented in the theory class. The development of safe driving habits and professional characteristics of the tractor trailer driver is stressed throughout the course. Prerequisite: HEQ 101 and concurrent enrollment in HEQ 101. (SCC)

# HEQ 103 - Trucking Practical Shop Procedures (4 cr)

This course continues with practical experience gained in HEQ 101 and 102. Simulated shop operations for maintenance of various components are emphasized. Prerequisite: HEQ 101, 102 or permission of instructor and concurrent enrollment in HEQ 104. (SCC)

# HEQ 104 – Trucking Practical Shop (1 cr)

Students learn practical applications of maintenance. Use of equipment, tools, machines and techniques are emphasized. Prerequisite: HEQ 101, 102 or permission of instructor and concurrent enrollment in HEQ 103. (SCC)

# HEQ 111 - Basic Electrical Theory (7 cr)

Students are introduced to the theories of basic low voltage DC electricity and mobile air conditioning and their application to the repair of heavy equipment systems. Ignition systems, starting and charging systems, vehicle wiring and auxiliary electrical/electronic components are emphasized. Prerequisite: Concurrent enrollment in HEQ 112. (SCC)

# HEQ 112 - Basic Electrical Applications (9 cr)

Students continue learning the concepts introduced in HEQ 111 with emphasis on the diagnosis and repair of low voltage DC electrical and mobile air conditioning systems common to heavy equipment. Prerequisite: Concurrent enrollment in HEQ 111. (SCC)

# HEQ 121 – Basic Principles of Engine Theory (7 cr)

Students are introduced to basic engine theory and operation, and their application to the maintenance and repair of heavy equipment. Engine systems and their component parts are emphasized. Prerequisite: Concurrent enrollment in HEQ 122. (SCC)

# HEQ 122 – Basic Engine Applications (9 cr)

Students continue learning concepts introduced in HEQ 121 with emphasis on the diagnosis and repair of the basic gasoline and diesel engine systems common to heavy equipment. Prerequisite: Concurrent enrollment in HEQ 121. (SCC)

#### HEQ 131 - Principles of Power Train Theory (7 cr)

Students are introduced to the theory and operation of clutches, transmissions, differentials, brakes (air and hydraulic), and their application to heavy equipment. Prerequisite: Concurrent enrollment in HEQ 132. (SCC)

# HEQ 132 - Power Train Applications (9 cr)

Students continue to learn the concepts introduced in HEQ 131 with emphasis on the diagnosis and repair of clutches, transmissions, differential (air and hydraulic). Practice in the repair and maintenance of bearings and seals, steering and alignment, and fluid couplings is covered. The correct use of specialized shop tools and equipment is emphasized. Prerequisite: Concurrent enrollment in HEQ 131. (SCC)

# HEQ 241 — Heavy Equipment Hydraulic Theory (7 cr)

Students are introduced to basic hydraulic theory and operation and their application to the maintenance and repair of heavy equipment. Hydraulic systems and their component parts are emphasized. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 242. (SCC)

# HEQ 242 – Heavy Duty Equipment Hydraulic Application (9 cr)

This course offers practical application of students' knowledge. Students diagnose, repair and test a variety of hydraulic equipment. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 241. (SCC)

## HEQ 251 – Practical Shop Procedures (7 cr)

This course offers practical shop application of students' knowledge and skills for the repair of basic electrical, engine, power train and heavy equipment. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 252. (SCC)

#### HEQ 252 - Practical Shop (8 cr)

This course continues with practical shop skills acquired in HEQ 251. Students receive shop experience in repairing a wider variety of heavy equipment. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 251. (SCC)

#### HEQ 261 - Practical Shop Procedures (8 cr)

This course continues with practical shop experience gained in HEQ 251, 252. Simulated shop operations for the repair and maintenance of various power train components are emphasized. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 262. (SCC)

#### HEQ 262 - Practical Shop (5 cr)

Students learn extensive practical applications of all aspects of heavy equipment repair. Use of specialized equipment, tools, machines and techniques is emphasized. In addition, comprehensive diagnosis and repair of transmissions are stressed. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 261. (SCC)

#### HEQ 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

HEQ 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### HEQ 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### HEQ 294 – Special Problems (3 cr)

Individualized student needs are addressed in this shop program. Students are assigned specialized shop projects and receive in-depth instruction about the specific aspects of heavy equipment repair. Prerequisite: Permission of instructor. (SCC)

#### DRAMA

#### DRMA& 101 - Intro to Theatre (5 cr)

Dramatic forms and styles, historic developments of the theater and contemporary theater practices. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### DRMA 106 - Rehearsal and Performance (1-5 cr)

This is a course in which students receive training and practical experience in acting, directing or technical theater. Each quarter's production provides the necessary laboratory experience. Recommended for those desiring an overall acquaintance with various phases of theatrical production. Prerequisite: Permission of instructor. (SCC, SFCC)

#### DRMA 107 - Rehearsal and Performance (1-5 cr)

This is a course in which students receive training and practical experience in acting, directing or technical theater. Each quarter's production provides the necessary laboratory experience. Recommended for those desiring an overall acquaintance with various phases of theatrical production. Prerequisite: Permission of instructor. (SCC, SFCC)

### DRMA 108 - Rehearsal and Performance (1-5 cr)

This is a course in which students receive training and practical experience in acting, directing or technical theater. Each quarter's production provides the necessary laboratory experience. Recommended for those desiring an overall acquaintance with various phases of theatrical production. Prerequisite: Permission of instructor. (SCC, SFCC)

#### DRMA 120 – Performance and Audition Techniques (3 cr)

Familiarization with the stage and technique in movement, development of technique and character through pantomimic suggestion, and study of the script from the actor's point of view. (SFCC)

#### DRMA 121 - Contemporary Acting (3 cr)

Definition of character and exercises in character portrayal, definition of mood or emotion and exercises in portrayal of attitude, and performance of characterization in representative scenes from major works of dramatic literature. Prerequisite: DRMA 106 or 120 or permission of instructor. (SFCC)

# DRMA 220 - Classical Acting (5 cr)

Students study definition of character and exercises in character portrayal, definition of mood or emotion. They do exercises in portrayal of attitude and performance of characterization in scenes from major classical works of dramatic literature. Prerequisite: DRMA& 101 or DRMA 120 or 121 or permission of instructor. (SFCC)

#### DRMA 221 – Acting for Film and Television (5 cr)

Acting for film focuses on honing actors' skills essential for performances in front of the camera. The approach is very pragmatic. Emphasis is given to the differences between stage and camera performances, learning roles instead of lines, how the changing camera affect performance, the use of the voice for the camera, auditioning for a role, and participating in a shoot. Prerequisite: DRMA& 101 or DRMA 120 or 121 or permission of instructor. (SFCC)

# DRMA 230 - Stagecrafting Theatrical Design (1-5 cr)

Students become proficient in understanding the theater environment, specifically theory of scene design and plans, construction techniques, scene painting, stage lighting techniques, purpose of lighting and design and costuming, properties and sound. May be repeated for a total of 15 credits. (SFCC)

#### DRMA 233 – Makeup (2 cr)

Purposes of stage makeup, physical features affected by makeup techniques, and technical skills in the application of stage makeup. (SFCC)

# DRMA 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

DRMA 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# EARLY CHILDHOOD EDUCATION

# ECED 100 – Basic Child Care Training (2 cr)

This course is designed to provide the 20 hours of basic childcare training for child care providers. The course is based on the Adult-sized Guide to Child-size Environments and includes the recommended learning outcomes for Washington State Training and Registry System (S.T.A.R.S.) initial training. (SFCC)

#### ECED 101 – Issues and Trends in Early Childhood Education (5 cr)

This course examines the current and future issues and trends in early childhood education, with an international and historical perspective. The organizations and support systems for early childhood professionals are explored. (SFCC)

#### ECED 102 – Observation and Documentation (1-2 cr)

This course orients students to the application component of early childhood education (ECE) courses. Course content focuses on students'44 hours field experience placement and requirements. Students are introduced to program philosophy, learning opportunity planning, observation and appropriate guidance strategies. If this course is taken prior to first quarter in the ECE program, student registers for 2 credits which consists of 11 lecture hours and 22 field hours with children. If taken concurrent with an ECE class requiring field hours, students register for one credit of 11 lecture hours. (SFCC)

# ECED 103 - College Success (3 cr)

This course provides an opportunity for students entering early childhood education to learn about services and strategies to help them become successful college students. Prerequisite: Concurrent enrollment in any ECED course. (SFCC)

### ECED 118 – Early Childhood Education Seminar (0.5-11 cr)

These short-term, skill-building seminars provide students with training options for the early childhood education profession. Content focuses on a variety of aspects of early childhood education. Seminars can be taken prior to ECE coursework or to meet one-time and/or ongoing training requirements. These seminars address 11 Core Competencies outlined in the Washington State Training and Registry System (STARS) and can be used to meet annual requirements. (SFCC)

#### ECED 124 – Methods of Learning (5 cr)

This course provides students with a theoretical overview of curriculum, methods of presentation and learning opportunity planning in the areas of social, emotional, cognitive, physical/motor and creative development for children birth through age eight. Educational philosophies guide the preparation, implementation and presentation of learning opportunities for curriculum within these areas. Forty-four hours of field experience are required. (SFCC)

#### ECED 125 - Science Methods in ECED (3 cr)

Explore the application of science methods in ECE programs. Develop developmentally appropriate science experiences for children birth to age 8. (SFCC)

#### ECED 126 - Math Methods in ECED (3 cr)

The course is designed to enhance the use of math in ECED programs by increasing the student's understanding of math and how to design developmentally appropriate experiences for young children. (SFCC)

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## COURSE DESCRIPTIONS

This survey course examines philosophical principles and theories used to guide early childhood educators in fostering the development of social competence in young children. Historical and current values held by society foster techniques for creating the context that supports optimal communication and the building of meaningful relationships among children and educators. Forty-four hours of field experience are required. (SFCC)

#### ECED 135 - Infant/Toddler Care and Education (5 cr)

The principles and scope of care giving, growth and development, guidance techniques and practical curriculum for working with infants and/or toddlers and their families, are the focus of this course. Forty-four hours of field experience in an infant and toddler environment are required as part of this course. (SFCC)

#### ECED 190 - Child Development (5 cr)

A survey of historical and current philosophies along with theories of growth and development in physical/motor, creative, social, emotional and cognitive areas are examined for children ages birth through eight. (SFCC)

#### ECED 226 - Curriculum Development (5 cr)

This course focuses on the past, present and future philosophies and theories used in the planning, implementation and evaluation of effective curriculum strategies and approaches. Fostering the growth and development of young children in the areas of cognitive, physical/motor, social, emotional and creativity are addressed. Forty-four hours of field experience are required. (SFCC)

#### ECED 230 - Learning Environments (5 cr)

Students analyze and evaluate early childhood environments based on an overview of the theories and philosophies of culturally relevant, antibias (CRAB) principles and developmentally appropriate practices (DAP). How the past guides the future in relationship to the role of children's play, assessments and literacy development in the learning environment is explored. (SFCC)

#### ECED 254 – Dynamics of Family Relationships (5 cr)

The impact of historical, current and future systems theory within which a child and his/her family operates is analyzed. Building an understanding of the philosophical and cultural context regarding children and families is the foundation used to identify ways to support healthy dynamics and to explore solutions to challenges families face. (SFCC)

#### ECED 260 - Child Care Administration (5 cr)

Childcare philosophy, policies, licensing, organization, personnel administration, supervision and the decision-making process, curriculum planning and evaluation, community resources and problems in operating a child care home or center will be introduced. Specific topics such as licensing regulation, hiring practices, forms, bookkeeping, in-service training, contracts, formative evaluations, community resources and alternative solutions to day-to-day problems may be explored. (SFCC)

#### ECED 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

#### ECED 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SFCC)

#### ECED 270 - School-age Creative Activities (5 cr)

This course focuses on the planning, implementation and evaluation of effective strategies that address all areas of development for school-age children. These include: Assessing the appropriateness of school-age environment, scheduling and demonstrating learning activities in the college classroom and in an approved field site. Forty-four hours of field experience are required. (SFCC)

#### ECED 280 - School-age Guidance (5 cr)

This course focuses on developmentally appropriate child guidance strategies for youth, school-age through adolescence. It addresses the role of the caregiver interactions, the child's environment and guidance theories in order to analyze, plan and implement appropriate strategies in an approved field site. Forty-four hours of field experience are required. (SFCC)

#### ECED 281 — Capstone Practicum (5 cr)

As a capstone experience based on Washington State Skill Standards for Early Childhood Education Lead Teachers, students assume responsibility for assessing, planning, preparing and facilitating a developmentally appropriate learning environment for young children. They document their abilities through videotaping, prepared visuals and an information packet that are used in an oral presentation to a committee of early childhood and college professionals. One hundred and thirty-three hours of field experience are required. (SFCC)

#### ECED 282 – Practicum I (5 cr)

This course focuses on the documentation of children's growth and development through a portfolio project. One hundred and thirty-three hours of field experience are required. Prerequisite: ECED 102. (SFCC)

#### ECED 283 – Practicum II (5 cr)

This practicum course is designed to be a synthesizing experience where a student puts theory into practice. It is a continuation of skill building developed in previous practice. Students examine all of the skills/competencies of the professional teacher and develop documentation of his/her own competencies. One hundred and thirty-three hours of field experience are required. Prerequisite: ECED 102. (SFCC)

#### ECED 290 – School-age Development (5 cr)

A survey of historical and current philosophies along with theories of growth and development in physical/motor, creative, social, emotional and cognitive areas are examined for youth from middle childhood through adolescence. (SFCC)

#### **ECHOCARDIOGRAPHY**

#### ECHO 100 – Introduction to Echo and Vascular (2 cr)

Introduction to the field of Echocardiography and Vascular Technology with emphasis on the role of these career pathways. Stresses the importance of professionalism, ethical behavior, and communications. Career opportunities, credentialing, program and health science student handbooks will be reviewed. Prerequisite: Admission to program and concurrent enrollment in ECHO 112, 125. (SCC)

#### ECHO 112 – Vascular Fundamentals (4 cr)

This course is an introduction to basic vascular anatomy of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the physiology of these systems. An introduction to the concepts essential for the performance and interpretation of vascular exams is also included. Laboratory experience is required. Prerequisite: Admission to program and concurrent enrollment in ECHO 100, 125. (SCC)

#### ECHO 122 – Vascular Procedures I (4 cr)

This course introduces students to the basic vascular procedures used to assess the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the ultrasonic examinations of these systems. Instrumentation commonly used in the vascular laboratory is also presented. Laboratory experiences are required. Prerequisite: Admission to program and concurrent enrollment in ECHO 135. (SCC)

#### ECHO 125 – Ultrasound Physics and Instrumentation I (5 cr)

This course emphasizes ultrasound physics, the physics of waves, sound transmission, attenuation, pulse wave principles, transducer and ultrasound systems operations. Prerequisite: Admission to program and concurrent enrollment in ECHO 100, 112. (SCC)

#### ECHO 131 - Core Concepts in Echo Vasc (2 cr)

The core concepts in cardiac and vascular imaging will be explored. Applications of blood flow and hemodynamic analysis using Doppler and imaging technologies. Review of current literature and standards documents will be conducted. Prerequisite: Admission to program and concurrent enrollment in ECHO 132, 133, 138. (SCC)

#### ECHO 132 – Vascular Procedures II (5 cr)

This course introduces students to the basic vascular physiology of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on homeostatis and normal/abnormal physiology of these systems. Laboratory experiences will be optional. Prerequisite: Admission to program and concurrent enrollment in ECHO 131, 133, 138. (SCC)

#### ECHO 133 – Echo Fundamentals (5 cr)

Introduction to the basic principles and application of the Doppler and echocardiographic procedures. The anatomy, image assessment, hemodynamics and clinical applications of cardiac ultrasound are emphasized. Laboratory experiences are provided. Prerequisite: Admission to program and concurrent enrollment in ECHO 131, 132, 138. (SCC)

#### ECHO 135 - Ultrasound Physics and Instrumentation II (5 cr)

This course is a continuation of the concepts introduced in ECHO 125. Ultrasound physics emphasizes the Doppler techniques, artifacts, bio utilizing instrumentation to investigate the principles of Doppler techniques and artifacts. Prerequisite: Admission to program and concurrent enrollment in ECHO 122. (SCC)

#### ECHO 138 – Cardiovascular Physiology (4 cr)

This course is an advanced study of normal cardiovascular physiology presented in a series of physician lectures and lab demonstrations with applications in invasive and noninvasive cardiology. Prerequisite: BIOL& 241, 242. Admission to program and concurrent enrollment in ECHO 131, 132, 133. (SCC)

See program/course abbreviation key on page 143.

#### ECHO 141 – Data Collection and Presentation (3 cr)

Students explore applications in medicine and develop the ability to use the microprocessor for word processing database management and statistical analysis. Principles of statistics are reviewed and applied through database management. Prerequisite: Admission to program and concurrent enrollment in ECHO 142, 143. (SCC)

#### ECHO 142 - Echo Clinical Preparation (4 cr)

Students develop basic imaging skills by imaging normals within the SCC echocardiography laboratory. Clinical requirements are discussed and defined. The role and job description of the noninvasive cardiovascular technologist are evaluated. Prerequisite: Admission to program and concurrent enrollment in ECHO 141, 143. (SCC)

#### ECHO 143 – Echo Clinical I (6 cr)

Students spend four weeks in a clinical setting. Two weeks are spent in an echocardiography laboratory assisting staff in patient preparation; imaging time is provided when appropriate. Two weeks are spent in a noninvasive electrophysiology laboratory performing ECGs, exercise tolerance testing, Holter monitoring and pacemaker checks under the direction of a staff technologist. Weekly clinical seminars are conducted with SCC staff. A clinical consciousness is developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to program and concurrent enrollment in ECHO 141, 142. (SCC)

#### ECHO 251 – Echocardiography Clinical II (6 cr)

Students obtain hands-on experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Admission to program and concurrent enrollment in ECHO 253. (SCC)

#### ECHO 253 – Echocardiography I (7 cr)

This course will utilize the fundamentals presented in the first year of noninvasive cardiovascular technology to evaluate acquired cardiovascular disease states. This course will emphasis the evaluation and interpretation of the Doppler and 2D Echo examinations. Prerequisite: Admission to program and concurrent enrollment in ECHO 251, 254. (SCC)

#### ECHO 254 – Technical Skills Echocardiography I (3 cr)

The student will develop basic skills in performing the Doppler Echo examination on student volunteers. All procedures are performed under the supervision of credentialed cardiac sonographers. Prerequisite: Admission to program and concurrent enrollment in ECHO 253. (SCC)

#### ECHO 261 – Echocardiography Clinical III (6 cr)

Students utilize the skills learned in NCT 251 and obtain advanced experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Admission to program and concurrent enrollment in ECHO 263. (SCC)

#### ECHO 263 – Echocardiography II (7 cr)

A continued study of cardiac noninvasive diagnostics with emphasis on the new developments and specialty applications. This course includes the echocardiographic approach to congenital heart disease. Physician lectures are utilized. Students will present registry review topics. Statistics and research methods are utilized. Prerequisite: Admission to program and concurrent enrollment in ECHO 261. (SCC)

#### ECHO 264 – Technical Skills Echo II (3 cr)

A continued study of cardiac noninvasive diagnostics with emphasis on the new developments and specialty applications. Laboratory experiences are provided in a clinical simulation format to develop the essential skills in the performance of the Doppler Echo imaging techniques. This course integrates the complete echocardiographic examination utilizing both fundamental and advanced techniques in a clinical simulation environment. Prerequisite: Admission to program and concurrent enrollment in ECHO 263. (SCC)

#### ECHO 273 - Echocardiography Clinical IV (14 cr)

Students practice clinical skills previously developed through active participation in a noninvasive cardiovascular laboratory. This full-time clinical internship is completed in an affiliated local or out-of-town hospital. Clinical skills necessary to the performance and evaluation of the M-mode, twodimensional and Doppler Echocardiogram are emphasized. Written reports, review of current literature and attendance at conferences are required. Prerequisite: Admission to program. (SCC)

#### **ECONOMICS**

#### ECON 100 - Fundamentals of Economics (5 cr)

A general introduction covering microeconomics (small sections of the economy), macroeconomics (economic system as a whole) and comparative economic systems. Students who plan to enroll in ECON& 201 or ECON& 202 should not enroll in ECON 100. (SCC, SFCC)

#### ECON& 201 – Micro Economics (5 cr)

Students are introduced to American economy with emphasis on prices, taxes, wages, production, farm problems, monopolies, labor, poverty and problems of the world economy. Prerequisite: SFCC only: ECON& 202 is recommended. (SCC, SFCC)

#### ECON& 202 – Macro Economics (5 cr)

The general introductory course covering the organization, operation and control of the American economy--problems of inflation, unemployment, taxation, public debt, money and banking, business cycles and economic growth. Capitalism compared with communism and socialism. (SCC, SFCC)

## EDUCATION/EDUCATION PARAPROFESSIONAL, SPECIAL EDUCATION

#### EDUC 100 – Exploring Teaching (5 cr)

This course focuses on personal qualities of teachers, the changing face of education, learning theories, teaching methods, classroom management and career planning. Observations in educational settings occur to identify differences in grade levels, child development, and teaching styles. In addition, practical, hands-on experiences are incorporated to complement academic training. (SCC, SFCC)

EDUC 120 - Survey of Core Competencies in Special Education (2 cr)

This course provides training of the 14 core competencies for the special education paraprofessional. It is designed to fill emerging needs of the classroom or to recognize documented prior learning in the workplace. (SFCC)

#### EDUC& 202 – Intro to Education (5 cr)

An orientation course designed to help the student--through an analysis of current educational issues--make a determination as to whether he or she should enter the field of teaching. (SCC, SFCC)

#### EDUC& 204 – Exceptional Child (5 cr)

This course introduces students to various categories of disabilities, legal and historical foundations for special education services, as well as opportunities to design and access educational resources for exceptional students from infancy to adulthood, within a community of collaboration and inclusion. (SCC, SFCC)

#### EDUC& 205 - Intro to Ed w/ Field Exp (5 cr)

This course explores the past, present and future of education in both theory and practice. For the students considering a career in education, this course examines historical, social, legal and philosophical issues as well as learning theory, teaching methods and current issues facing the profession. Students meet three hours per week in class and complete 44 hours of field experience in a school setting. (SFCC)

#### EDUC 206 - Tutor Training (1 cr)

This course prepares students to provide individual and small group tutoring. It includes the study of methods and materials for tutoring, interpersonal skills, and journaling. Prerequisite: SFCC Only: Permission of instructor. (SCC, SFCC)

#### EDUC 207 – Advanced Tutor Training (1 cr)

This course prepares students to provide advanced individual and small group tutoring. It includes the study of methods and materials for tutoring, interpersonal skills, and journaling. Prerequisite: EDUC 206 and permission of instructor. (SCC, SFCC)

#### EDUC 208 – Tutorial Practicum (1-2 cr)

In this course students provide individual and small group tutoring within a supervised work environment of those skills. This course may be repeated. Prerequisite: Concurrent enrollment in EDUC 206 or EDUC 207 and/or permission of instructor. (SCC, SFCC)

#### EDUC 252 – Social/Emotional Development (5 cr)

This course begins with an orientation to the discipline of social and personality development through research methodologies and classical theories. Early social and emotional development are explored as are topics of the development of self-achievement, gender issues, and aggression and antisocial conduct. We conclude by considering the impact of family as well as extrafamilial influences, such as TV, peers and schools. Theory and research are applied to real life. Prerequisite: EDUC& 204 or permission of instructor. (SFCC)

#### EDUC 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

COURSE DESCRIPTIONS

#### EDUC 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC, SFCC) EDUC 270 – Introduction to Developmental Disabilities (5 cr)

This course addresses etiology of retardation, unresolved social questions, and problems related to the identification, education and professional/ technical training of persons with developmental disabilities. Students are assigned to community agencies where they receive practical experience working with children or adults. Orientation includes current problems and trends in the field of developmental disabilities. Forty-four hours of field experience are required. Prerequisite: EDUC& 204 or permission of instructor. (SFCC)

#### EDUC 275 - Learning Disabilities (5 cr)

Basic difficulties encountered by children that lead to the label of "learning disabled" are addressed. Perceptual and neurological problems, reading difficulties and other etiological considerations are discussed. Practical classroom suggestions for treatment and remediation of learning disabilities are examined and outlined. Students are assigned to community agencies for practical experience working with children or adults who are experiencing learning problems. Forty-four hours of field experience are required. Prerequisite: EDUC& 204 or permission of instructor. (SFCC)

#### EDUC 280 - Behavior/Classroom Management (5 cr)

This course provides a forum in which to explore various behavioral prevention and intervention strategies used in the education of children. Through this course students have opportunities to conduct observations, to develop prevention and interventions for specific situations, and to discuss the ethical issues with regard to behavioral support and management. Prerequisite: EDUC& 204 or permission of instructor. (SFCC)

#### EDUC 281 - Education/Special Education Practicum I (5 cr)

Students are placed in an educational setting commensurate with their intended career goal. Key professional competencies are developed incorporating elements of teaching and learning. Integration of theory and practice is accomplished through practical engagement for 132 hours under close supervision. Prerequisite: EDUC& 204 or permission of instructor. (SFCC)

#### EDUC 282 - Education/Special Education Practicum II (5 cr)

Students in the education paraprofessional program are placed in a practicum setting, such as a public school or community service agency, where they have an opportunity to observe and work in settings in accordance with their career direction. Students work under the supervision of a qualified professional. As a culminating experience, students publicly present a capstone project of their own design. Prerequisite: EDUC 281. (SFCC)

#### ELECTRICAL MAINTENANCE AND AUTOMATION

#### ELMT 111 – Electrical Math (5 cr)

Concepts of mathematics and their application to the electrical field are presented. Additional areas covered include Ohm's Law, the metric system, algebraic formulas and trigonometry. (SCC)

#### ELMT 112 – Electrical Theory (5 cr)

Students study matter, atomic structure, electron theory, sources of electricity and magnetism. Prerequisite: ELMT 111 or MATH 096 or permission of instructor. (SCC)

#### ELMT 113 - Safety and Tools (4 cr)

A theoretical and practical study and its application to the electrical field is presented. This course provides general safety concepts to be applied when working with electric circuits, as well as job safety concepts. (SCC)

#### ELMT 114 - Materials and Fasteners (4 cr)

Students learn to identify electrical materials and their applications. In addition, students classify, grade and use fasteners, such as bolts, screws, and rivets. Proper torque values are explained. (SCC)

#### ELMT 122 – DC Circuits (1-5 cr)

Theory and shop application in Ohm's Law, voltage, current, resistance, and power in series, parallel and series-parallel direct current circuits are presented in this course. Prerequisite: ELMT 112 or permission of instructor. (SCC)

#### ELMT 123 – AC Theory (5 cr)

Students analyze AC series, parallel, and combination circuits with resistance, inductance and capacitive elements using mathematics, measuring devices and other test equipment. Prerequisite: ELMT 122 or permission of instructor. (SCC)

#### ELMT 124 - Motor Maintenance (2-5 cr)

Students learn to perform the mechanical disassembly, assembly, and/or inspection of bearings, commutators, slip rings, brushes and insulation found in small and medium-sized motors. (SCC)

#### ELMT 131 – Solid State (2-5 cr)

This course introduces the study of theory and operation of solid state devices such as diodes, transistors, triacs and SCRs. Prerequisite: ELMT 123. (SCC)

#### ELMT 132 – DC Generators and Motors (1-5 cr)

Theory, design, application and testing of direct current (DC) motors and generators are presented in this course. The teardown and reassembly of DC generators also are included. Prerequisite: ELMT 122. (SCC)

#### ELMT 133 – AC Motors and Alternators (4 cr)

Theory, design, application and testing of alternating current (AC) motors; single- and three-phase generation of alternating current (single-and poly-phase); paralleling alternators and calculating load and power factor characteristics under various load conditions are presented. Prerequisite: ELMT 123 or permission of instructor. (SCC)

#### ELMT 134 – Introduction to AC Controls (5 cr)

This course introduces pilot devices, wiring diagrams and basic motor circuits. Areas of emphasis include overload, hand-off automatic and parallel stop-start controls. The wiring and troubleshooting of various motor control circuits also are introduced. (SCC)

#### ELMT 135 - DC Motor Controls (4 cr)

Students study DC motor control devices such as manual starting rheostats, reduced voltage starting, braking and speed control. The development of ladder diagrams to NFPA standards is addressed. Prerequisite: ELMT 132. (SCC)

#### ELMT 241 - AC Motor Controls (5 cr)

This course continues with the concepts introduced in ELMT 134 with emphasis on pilot devices, timing circuits, control voltage, ladder diagrams and sensors. Wiring and troubleshooting of various motor control circuits also are included. Prerequisite: ELMT 134. (SCC)

#### ELMT 242 – Advanced AC Controls (5 cr)

This course is a continuation of the concepts introduced in ELMT 134 and 241 with emphasis on forward and reversing, motor deceleration and braking, advanced timing circuits, and basic sequence control. The wiring and troubleshooting of various motor control circuits also are included. Prerequisite: ELMT 241 or permission of instructor. (SCC)

#### ELMT 243 – Introduction to Programmable Controllers (4 cr)

This course is an introduction to programmable controllers, hardware, programming fundamentals, numbering systems, memory organization and peripheral devices. Prerequisite: ELMT 134 or permission of instructor. (SCC)

#### ELMT 244 – Solid State Motor Controls (4 cr)

This course includes the theory of operation, testing and programming of solid-state starters, and DC and AC variable frequency drives. Students use test equipment and manuals including digital volt meters and oscilloscopes. Prerequisite: ELMT 131, 134 or permission of instructor. (SCC)

#### ELMT 251 – National Electric Code (4 cr)

The National Electrical Code and its application to the safe installation of electrical conductors and equipment is explained in this course. (SCC)

#### ELMT 252 – Transformers and Industrial Lighting (5 cr)

This course is a comprehensive study of the theory and operation of transformers and industrial lighting. The functions of various types of transformers and the maintenance and repair of industrial lighting systems are emphasized. Students perform the actual hookup and testing of basic singlephase and three-phase transformer connections, observe and demonstrate proper safety and maintenance techniques, and develop service wiring skills. Prerequisite: ELMT 123 or permission of instructor. (SCC)

#### ELMT 253 - National Electric Code - Article 430 (1-5 cr)

This course offers an in-depth study of Article 430 of the National Electrical Code and its application to motors, motor circuits and controllers. (SCC)

#### ELMT 254 – Programmable Controller Applications (5 cr)

Practical experience in programming circuits using relay type instructions, timers, counters, data manipulation, arithmetic functions and other advanced techniques is offered in this class. Prerequisite: ELMT 244 or permission of instructor. (SCC)

#### ELMT 262 - Raceways (1-5 cr)

This course provides practical shop experience in the bending of conduit using hand, mechanical and hydraulic benders. Prerequisite: ELMT 111 or MATH 096 or permission of instructor. (SCC)

#### ELMT 263 — Wiring Techniques (4 cr)

Students are offered actual lab experience in project layout, support and installation of electrical systems. (SCC)

#### ELMT 264 – Special Circuits (5 cr)

This course offers practical applications on the development of complex controls in machine sequence or process systems. (SCC)

#### ELMT 265 – Advanced Programmable Controllers (1-5 cr)

This course is an introduction to the concepts of analog input/output devices, motion control, vision basics, networking programmable controllers, software installation and graphical man/machine interfaces. Practical experience applying this information to motor control is emphasized. Prerequisite: ELMT 254 or permission of instructor. (SCC)

#### ELMT 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

ELMT 267 - Cooperative Education Work Experience (1-16 cr)

For course description, see Cooperative Education. (SCC)

#### ELMT 268 – Programmable Controller Integration (1-5 cr)

This course provides practical experience in industrial process control applications and hardware, plant floor communication networks, and operator interface devices. Prerequisite: ELMT 265. (SCC)

### ELMT 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### **ELECTRONICS ENGINEERING TECHNICIAN**

#### ELECT 100 - Electronics Fundamentals (4 cr)

Students are introduced to DC/AC circuits including resistors and resistive circuits, series and parallel circuits, DMMs and oscillocopes. Prerequisite: Concurrently enrolled in ELECT 101. (SCC)

#### ELECT 101 - Satellite, Security, and Entertainment Systems (3 cr)

Students are introduced to basic satellite TV, security/fire, and entertainment systems equipment. System operation and interface will be discussed. Prerequisite: Concurrent enrollment in ELECT 100. (SCC)

#### ELECT 102 - Cable and Satellite TV Installation (3 cr)

Students learn to install cable and satellite TV systems. Prerequisite: ELECT 101 or permission of instructor. (SCC)

#### ELECT 103 – Security and Fire Systems Installation (3 cr)

Students learn to install security and fire alarm systems. Prerequisite: ELECT 101 or instructor permission. (SCC)

#### ELECT 104 - Home Entertainment Systems Installation (3 cr)

Students learn to install home entertainment systems. Computer, home theater, and sound systems will be covered. Prerequisite: ELECT 101 or instructor permission. (SCC)

#### ELECT 105 – Home Technology Systems Integration (3 cr)

Students will integrate the operation of home/office technologies. Systems such as home entertainment, satellite and cable, and security will be integrated. Prerequisite: ELECT 102, 103, 104 or instructor permission. (SCC)

#### ELECT 110 – Computer Fundamentals for Electronics (2 cr)

Students are introduced to the basics of the Microsoft Disk Operating System (DOS), word processing, keyboarding skills and various applications for the electronics industry. Prerequisite: Concurrent enrollment in ELECT 111, 112, 113. (SCC)

#### ELECT 111 - DC Circuits (7 cr)

Students are introduced to DC circuits including resistors and resistive circuits, series and parallel circuits, meter movements, ammeters, voltmeters, VOMs, DMMs and Wheatstone Bridges. (SCC)

#### ELECT 112 - DC Circuit Lab (5 cr)

This course presents DC circuits lab applications including resistors and resistive circuits, series and parallel circuits, meter movements, ammeters, voltmeters, VOM's, DMM's and Wheatstone Bridges. (SCC)

#### ELECT 113 - DC/AC Circuit Math (5 cr)

Students review mathematics as it applies to DC/AC circuits and utilize the electronic calculator as a problem solving tool. The use of algebraic equations and trigonometric functions to solve circuit problems are emphasized. (SCC)

#### ELECT 121 - AC Circuits (9 cr)

This course addresses theory related to AC circuits, capacitors, coils, solidstate diodes, transformers, oscilloscopes, audio generators, and component checkers. Prerequisite: ELECT 111, 112, 113 or department chair approval. (SCC)

#### ELECT 122 – AC Circuit Lab (5 cr)

This course introduces AC circuit lab applications including capacitors, coils, solid-state diodes, transformers, oscilloscopes, audio generators and component checkers. Prerequisite: ELECT 111, 112, 113 or department chair approval and concurrent enrollment in ELECT 121 or department chair approval. (SCC)

#### ELECT 123 – Advanced DC/AC Circuit Math (5 cr)

This course is the study and application of algebraic exponents, phasor algebra and logarithms for DC/AC circuits. Prerequisite: ELECT 111, 112, 113 or department approval. (SCC)

### ELECT 134 — Printed Circuit Board/Surface Mount Technology Design and Repair (1 cr)

This course introduces the student to computer aided printed circuit board design (MultiSim and Ultiboard) and installation and removal techniques of surface mount technology. (SCC)

#### ELECT 136 - Solid State Devices/Circuits (5 cr)

Students are introduced to semiconductor devices, their operation and characteristics. (i.e., transistors, diodes, and special devices). Basic power supply circuits also are covered. Prerequisite: ELECT 121, 122, 123 or department chair approval. (SCC)

#### ELECT 137 - Solid State Devices/Circuits Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 136. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 136 or department chair approval. (SCC)

#### ELECT 138 – Linear Devices/Circuits (5 cr)

Students are introduced to the characteristics and operation of amplifiers, linear circuits, active filter circuits and specialized circuits such as comparator, integrator and differentiator amplifiers. Prerequisite: ELECT 121, 122, 123 or department chair approval. (SCC)

#### ELECT 139 - Linear Devices/Circuits Lab (4 cr)

Students experience a hands-on approach to the characteristics and operation of operational amplifiers, linear circuits, active filter circuits and specialized circuits such as comparator, integrator and differentiator amplifiers. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 138 or department chair approval. (SCC)

#### ELECT 211 – Digital Concepts (5 cr)

Students are introduced to the basic concepts of numbering systems (i.e., binary, octal and hex), digital devices such as gates, counters and flip-flops. An introduction to microprocessors, memory circuits, and microprocessor applications will be covered. General hardware structure, addressing and ASIC's will also be covered. Prerequisite: Concurrent enrollment in ELECT 212 or department chair approval. (SCC)

#### ELECT 212 – Digital Concepts Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 211. Prerequisite: Concurrent enrollment in ELECT 211. (SCC)

#### ELECT 213 – Basic Computer Systems (5 cr)

Students are introduced to basic computer systems; the motherboard including Bus architecture, BIOS, storage devices, audio/video devices, printing devices, computer power supplies and other I/O devices. Basic peer-to-peer networks are also covered. Prerequisite: ELECT 136, 137, 138, 139 or department chair approval. (SCC)

#### ELECT 214 – Basic Computer Systems Lab (4 cr)

The course gives the student a hands-on approach to basic computer systems; the motherboard including Bus architecture, BIOS, storage devices, audio/video devices, printing devices, computer power supplies and other I/O devices. Basic peer-to-peer networks are also covered. System maintenance and troubleshooting is emphasized. Prerequisite: ELECT 136, 137, 138, 139 or department chair approval and concurrent enrollment in ELECT 213 or department chair approval. (SCC)

#### ELECT 221 – Communication Fundamentals (5 cr)

Students are introduced to the basic concepts of communications systems including RF, amplitude modulation (AM), frequency/phase modulation, basic transmitters and receivers. Prerequisite: ELECT 211, 212, 213, 214 or department chair approval. (SCC)

#### ELECT 222 - Communication Fundamentals Lab (4 cr)

Students experience a hands-on approach to the basic concepts of communications systems including RF, amplitude modulation (AM), frequency/ phase modulation, basic transmitters and receivers. Prerequisite: ELECT 211, 212, 213, 214 or department chair approval and concurrent enrollment in ELECT 221 or department chair approval. (SCC)

#### ELECT 223 – Advanced Computer Systems (5 cr)

This advanced computer course will cover computer operating systems, installation and hardware setup, specialized computer interfacing, digital communications, data transmission, data cabling and computer diagnostics. Prerequisite: ELECT 213, 214 or department chair approval. (SCC)

#### ELECT 224 – Advanced Computer Systems Lab (4 cr)

Students experience a hands-on approach to computer operating systems, installation and hardware setup, specialized computer interfacing, digital communications, data transmission, data cabling and computer diagnostics. Prerequisite: ELECT 213, 214 or department chair approval and concurrent enrollment in ELECT 223 or department chair approval. (SCC)

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#### ELECT 231 - Advanced Communications (5 cr)

This course covers transmission lines, radio wave propagation, antennas and fiber optics. The utilization of transmission and receiver techniques is emphasized. Prerequisite: ELECT 221, 222 or department chair approval. (SCC)

#### ELECT 232 – Advanced Communications Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 231. Prerequisite: ELECT 221, 222 or department chair approval and concurrent enrollment in ELECT 231 or department chair approval. (SCC)

#### ELECT 233 – Systems Troubleshooting (5 cr)

This course covers troubleshooting techniques including system and block concepts, analysis methods, quick failure identification, system checkout procedures and customer/client relations. Prerequisite: ELECT 221, 222, 223, 224 or department chair approval and concurrent enrollment in ELECT 234. (SCC)

#### ELECT 234 – Systems Troubleshooting Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 233. Prerequisite: ELECT 221, 222, 223, 224 or department chair approval and concurrent enrollment in ELECT 233 or department chair approval. (SCC)

#### ELECT 245 – Principles of Avionics (5 cr)

Students are introduced to avionics communication, navigation, and flight control systems. Operation and testing using specialized equipment is emphasized. FAA regulations: Parts 43 and 91 as well as FCC requirements are also covered. Prerequisite: Instructor approval and concurrent enrollment in ELECT 246. (SCC)

#### ELECT 246 - Principles of Avionics Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 245. Operation and testing using specialized equipment is emphasized. Prerequisite: Instructor approval and concurrent enrollment in ELECT 245. (SCC)

#### ELECT 247 – Avionics Systems (5 cr)

This course covers advanced navigation, flight control, interfacing and troubleshooting systems. FAA required certification testing of transponders, altitude encoders, pitot/static systems and altimeters is also covered. Prerequisite: Instructor permission and concurrent enrollment in ELECT 248. (SCC)

#### ELECT 248 – Avionics Systems Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 247. Special emphasis is given to FAA required certification testing of transponders, altitude encoders, pitot/static systems and altimeters. Prerequisite: Instructor permission and concurrent enrollment in ELECT 247. (SCC)

#### ELECT 250 - Electronics Independent Study (22 cr)

Faculty supervise this independent study to allow students to work in a number of areas in electronics such as digital, instrumentation, communications, etc. Prerequisite: Permission of instructor. (SCC)

#### ELECT 255 - Digital Data Communications (5 cr)

This course covers digital modulation, multiplexing, digital signal processing, systems and data protocols, network operation, troubleshooting techniques, and security policies. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 256 or department chair approval. (SCC)

#### ELECT 256 – Digital Data Communications Lab (4 cr)

This course allows students to experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 255. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 255 or department chair approval. (SCC)

#### ELECT 257 — Wireless Communications (5 cr)

This course covers spread spectrum technologies, troubleshooting wireless local area networks, antenna options, security, system design, and installation standards and regulations. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 258 or department chair approval. (SCC)

#### ELECT 258 – Wireless Communications Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 257. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 257 or department chair approval. (SCC)

#### ELECT 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### ELECT 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### ELECT 278 – RF Communications (5 cr)

This course covers FCC rules and regulations; radiation power exposure and safety; and television systems including transmitters, translators and receivers. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 279 or department chair approval. (SCC)

#### ELECT 279 – RF Communications Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 278. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 278. (SCC)

#### ELECT 294 – Microwave, CATV, and Satellite Communications (5 cr)

This course covers point-to-point microwave transmitters, receivers, antennas and satellite systems including downlink calculations and evaluations. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 295 or department chair approval. (SCC)

## ELECT 295 — Microwave, CATV, and Satellite Communications Lab (4 cr)

Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 294. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 294 or department chair approval. (SCC)

## EMERGENCY MEDICAL TECHNICIAN (PARAMEDIC)

#### LIFE 128 – Emergency Medical Technician-Basic Lecture (9 cr)

This course is for students actively involved in providing pre-hospital care and is not intended as a first aid course to the general public. Students learn to recognize the nature and seriousness of a patient's injury, assess the need for emergency medical care; and administer medical care that may include lifting, moving and positioning the patient to minimize discomfort and prevent further injury safely and effectively. The course meets the NHTSA, Washington State and National Registry for EMT requirements for certification as an EMT-Basic. Prerequisite: 18 years of age, high school diploma or GED certificate, AHA Healthcare Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT-Basic. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. (SCC)

#### LIFE 129 – Emergency Medical Technician-Basic (3.1 cr)

This course is for students actively involved in providing pre-hospital care and is not intended as a first aid course to the general public. Students learn to recognize the nature and seriousness of a patient's injury, assess the need for emergency medical care; and administer medical care that may include lifting, moving and positioning the patient to minimize discomfort and prevent further injury safely and effectively. The course meets the NHTSA, Washington State and National Registry for EMT requirements for certification as an EMT-Basic. Prerequisite: 18 years of age, high school diploma or GED certificate, AHA Healthcare Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT-Basic. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. (SCC)

#### LIFE 130 — Intermediate Life Support (9 cr)

This course offers intermediate level training for emergency life support. Didactic sessions, skill development, and clinical experience focusing on shock and fluid therapy and respiratory support. Prerequisite: Must meet program prerequisites. (SCC)

#### LIFE 131 – Advanced Life Support I (14 cr)

This is the first in a series of four courses to prepare students for certification as EMT-P. Students are presented with a solid base of education regarding the paramedic's rules and responsibilities, and the medical/legal issues that apply to the profession. Patient assessments, proper communication and documentation techniques, and the application of various types of intravenous access are introduced. Issues of hemorrhage and shock including numerous types and forms of trauma such as musculoskeletal trauma, soft tissue injuries, burns, head and face trauma, thoracic, abdominal and spinal trauma are emphasized. Prerequisite: HED 108, 109 or BIOL& 241, 242 and current Emergency Medical Technician Certification. (SCC)

See program/course abbreviation key on page 143.

#### LIFE 132 – Advanced Life Support II (15 cr)

This is the second in a series of four courses to prepare students for certification as EMT-P. Students are introduced to pharmacology, its applications and the role it plays in the treatment of injured patients. A brief introduction to the field of microbiology and how it affects patients is presented as well as the treatment and final outcome. Students gain an understanding of the measures necessary for the prevention of disease transmission. Extensive coverage of the cardiovascular system, its disease process and the treatment is emphasized. Interpretation of cardiac rhythms, both in the 3 and 12 lead modes, identification of rhythms that pose a threat to life and how to properly care for patients with cardiac illnesses are studied. Prerequisite: LIFE 131. (SCC)

#### LIFE 133 – Advanced Life Support III (18 cr)

This is the third in a series of four courses to prepare students for certification as EMT-P. Medical problems that paramedics may encounter are covered including neurological problems, medical emergencies, environmental injuries, psychiatric emergencies, etc. Special emergencies such as treatment of the neonatal newborn, pediatric and geriatric patients also are covered. Prerequisite: LIFE 132. (SCC)

#### LIFE 134 - Advanced Life Support IV (21 cr)

This is the final in a series of four courses to prepare students for certification as EMT-P. It incorporates all of the previous courses into clinical experience for students in the pre-hospital environment. Students spend time with emergency medical service providers practicing and refining the skills acquired during the earlier training classes. Additional education in related fields including air-operations, medical incident command, rescue awareness, crime scenes and hazardous materials is emphasized. Prerequisite: LIFE 133. (SCC)

#### ENGINEERING

#### ENGR 103 - Engineering Graphics/CAD (5 cr)

This is a basic graphics course for engineers using manual and computeraided (CAD) methods. The course emphasizes visualization, spatial relations and design. Multiview working drawings and 3-D pictorial drawings are combined into a design project at course conclusion. Descriptive geometry principles are studied for graphical problem solving, as well as CAD solids modeling. Prerequisite: MATH 099. (SFCC)

#### ENGR 110 – Engineering Problems and Orientation (3 cr)

This course is an introduction to the world of engineering. It also is an orientation for students who have an interest in engineering but know little about the various disciplines or functional areas. Simple application problems in mechanics, thermal and electrical sciences, and fluids are examined to give students an appreciation for these subjects. There also is an introduction to the personal computer in engineering work. Prerequisite: MATH 099. (SFCC)

#### ENGR 111 - Engineering Projects (2 cr)

This is a project course that complements ENGR 110. Students work in teams to design and/or build an object. Robots, 3D CAD and creative devices can be used. Prerequisite: ENGR 110 or concurrent enrollment in ENGR 110. (SFCC)

#### ENGR 190 - Electronic Logic (5 cr)

The operation and use of linear and digital circuits normally used in and with micro- and minicomputers. Use of system and logic design; build and test typical circuits using TTL logic. Prerequisite: Basic electronics courses with permission of instructor. (SFCC)

#### ENGR 191 – Microprocessor Architecture (5 cr)

An intensive laboratory course in the internal operation of microcomputers and their interfaces. Starting from an understanding of digital and analog electronics, the course covers all important computer circuits, timing and protocols. Students interface peripherals to a computer and build a process control system. Prerequisite: ENGR 190. (SFCC)

#### ENGR 201 - Statics (5 cr)

A fundamental course in engineering mechanics for particles and rigid bodies in equilibrium. Problems in two and three dimensions using both scalar and vector algebra methods. Prerequisite: MATH& 152 and concurrent enrollment in PHYS 201. (SFCC)

#### ENGR 202 – Dynamics (5 cr)

Fundamental course in engineering mechanics for particles and rigid bodies experiencing acceleration. Students study unbalanced forces and torques acting on bodies, and the resulting motion using scalar and vector algebraic methods. Prerequisite: ENGR 201. (SFCC)

#### ENGR 203 - Mechanics of Materials (5 cr)

The study of internal stresses, strains, and deformations of structural members and parts resulting from externally applied loads. Covers design criteria for beams, columns, pressure vessels, bolts, shafts, etc. Prerequisite: ENGR 201. (SFCC)

#### ENGR 210 - Electric Circuit Theory (5 cr)

A first course in elementary linear circuit analysis for the electrical sciences designed for electrical engineers. Circuit analysis laws, theorems and reduction techniques are studied for first- and second-order circuits. These circuits contain dependent sources and multiple configurations of capacitors and inductors. A weekly lab complements the class lectures. Prerequisite: MATH& 153, 274 (may be taken concurrently), PHYS 202. (SFCC)

#### ENGLISH

#### ENGL 050 - ESL Writing (5 cr)

This course is for ESL students at the low-intermediate level whose writing skills require additional preparation before entering ENGL 061 or ENGL 071. Emphasis is on writing compound and complex sentences. The course provides strategies for developing vocabulary and applying the rules of grammar and punctuation to English sentences. (SFCC)

#### ENGL 051 - Basic Reading Skills (3 cr)

Small group or individual help in the basic skills of reading. Non-transferable. (SCC)

#### ENGL 052 – ESL Reading (5 cr)

This course is for ESL students at the low-intermediate level whose reading skills require additional practice before entering ENGL 062 or ENGL 072. Students work on vocabulary development and improving reading comprehension. (SFCC)

#### ENGL 053 – ESL Listening and Speaking (5 cr)

This course is for ESL students at the low-intermediate level whose reading skills require additional practice before entering ENGL 062 or ENGL 072. Students work on vocabulary development and improving reading comprehension. (SFCC)

#### ENGL 061 - ESL Writing (5 cr)

This course is for ESL students at the intermediate level whose writing skills require additional preparation before entering ENGL 071 or ENGL 081. It provides strategies for developing vocabulary, applying the rule of grammar and punctuation, writing compound and complex sentences, and composing basic paragraphs. (SFCC)

#### ENGL 062 - ESL Reading (5 cr)

This course is for ESL students at the intermediate level whose reading skills require additional practice before entering ENGL 072 or ENGL 082. Students work on vocabulary development and improving reading fluency and comprehension. (SFCC)

#### ENGL 063 – ESL Listening and Speaking (5 cr)

This course is for ESL students at the intermediate level whose listening and speaking skills require additional practice before entering ENGL 073 or ENGL 083. Students work on listening, speaking and interaction skills necessary for communicating in an academic environment. Emphasis is on experiential learning. Students are given opportunities to develop language competence by participating in various classroom, college and community activities. (SFCC)

#### ENGL 071 - ESL Writing (5 cr)

This course prepares ESL (English as a second language) students for college-level writing tasks. The course helps prepare students to write a variety of coherent, well-developed paragraphs and increases the student's fluency and independence in writing. Prerequisite: TOEFL score of 440 or demonstration of the same by written essay. (SFCC)

#### ENGL 072 – ESL Reading (5 cr)

This course prepares ESL (English as a second language) students for college-level reading and study tasks. Students concentrate both on learning and applying the skills needed for comprehending various types of required college reading and learn the study strategies to prepare them for college success. Prerequisite: TOEFL score of 440 or demonstration of the same by written essay. (SFCC)

#### ENGL 073 – ESL Listening and Speaking (5 cr)

This course prepares ESL (English as a second language) students with the oral communication skills and listening comprehension strategies needed both for communicating with and understanding others in an academic environment. Prerequisite: TOEFL score of 440 or demonstration of the same by written essay. (SFCC)

#### ENGL 081 - ESL Writing (5 cr)

This course is designed for the ESL (English as a second language) student whose writing skills require additional preparation before entering ENGL 099 or ENGL& 101. (SCC, SFCC)

## ENGL 082 — Reading and Study Skills for the ENS (English for the Non-native Speaker (5 cr)

This course is designed to increase the confidence and success of the nonnative speaker of English in college-level courses. The course focuses on developing reading, study and testing strategies. (SCC, SFCC)

#### ENGL 083 - ESL Conversation (5 cr)

This course is designed to increase the ESL (English as a second language) student's ability to understand and use both written and spoken American English at the college level. (SCC, SFCC)

#### ENGL 087 – Spelling Skills Development (3 cr)

A course designed for students interested in developing and strengthening their spelling skills. Students will learn mnemonic devices, homonyms and spelling rules. Regular quizzes will be given. (SFCC)

#### ENGL 090 - Reading and Study Skills (2 cr)

Designed for the slightly below average to better readers to prepare for academic work in the trade and industrial areas. (SCC)

#### ENGL 091 - Writing Workshop (2 cr)

Designed to further the technical writing skills of students enrolled in trade and industrial programs. (SCC)

#### ENGL 092 - Communication for International Students (1-5 cr)

A class designed to improve the basic language skills (reading, writing, study skills, pronunciation, conversation) of international students who plan to enroll in college level vocational or academic courses. The curriculum is designed to help those students improve their communication skills so that they can successfully participate in more advanced courses. Students who need additional instruction may have follow-through programs designed for them in the Learning Center. (SCC)

#### ENGL 093 - Individualized Study Skills (1-5 cr)

This course sharpens students'skills in textbook study, note taking and time management as well as in memory improvement and general classroom survival skills. It may not be taken simultaneously with ENGL 094 or ENGL 151. Students can enroll in the same lab course no more than three quarters regardless of the number of hours for which they enroll. Grading option: Pass/fail. (SCC, SFCC)

#### ENGL 094 - Study Skills (5 cr)

This course sharpens students' skills in textbook study, note taking and time management as well as in memory improvement, reading comprehension and classroom survival skills. Students also may be introduced to methods which increase reading rates and develop vocabulary. (SCC, SFCC)

#### ENGL 095 - Reading Lab (1-5 cr)

This course improves students' reading skills through programs that include vocabulary, rate increase, comprehension or study skills. Students can enroll in the same lab course no more than three quarters regardless of the number of hours for which they enroll. Grading option: Pass/fail. (SCC, SFCC)

#### ENGL 096 - Reading Improvement (3-5 cr)

This course is for the average and better reader to work on these skills: Reading comprehension, summary writing, rapid reading, skimming and scanning. Prerequisite: Score at or above the 25 percentile on the assessment reading test. (SCC, SFCC)

#### ENGL 097 - Basic Writing: From Sentence to Paragraph (5 cr)

This course provides students with the basic elements of grammar and punctuation as they relate to writing complete and accurately punctuated English sentences. The course attends to grammar, ranging from prepositional phrases to independent and dependent clauses to the recognition and proper punctuation of sentence elements. Formal writing tasks include recognition of boundaries and composing basic paragraphs. (SCC, SFCC)

#### ENGL 098 – Writing Lab (1-5 cr)

This course offers students individually tailored composition skills through work on paragraphs and essays, sentence structure and mechanics. It is offered in either lecture or lab mode. In the lab mode, the content moves from the paragraph to the essay with emphasis on structure and mechanics, and students earn 5 credits. Students may enroll in the same lab course no more than three quarters regardless of the number of hours for which they enroll. Grading option: Pass/fail. (SCC, SFCC)

#### ENGL 099 - Improvement of Writing (5 cr)

Students review paragraph development and write several essays. Principles governing sentence structure and punctuation are emphasized. This course may be taken twice for credit. Prerequisite: 2.0 grade in ENGL 097, appropriate placement score, or permission of instructor. (SCC, SFCC)

#### ENGL 100 – Composition Preparation (5 cr)

This course focuses on remediation of expository skills, reading and incorporating those readings into compositions. This course serves as a "bridge" between English 099 and 101. Prerequisite: ASSET scores or instructor referral. (SCC)

#### ENGL& 101 – English Composition I (5 cr)

This course develops and sharpens the basic principles of writing collegelevel essays. Students work on a series of essays to improve their ability to write clear, detailed prose and to use texts to support their claims. Competence in mechanics and standard English usage is assumed of all students taking ENGL& 101. Prerequisite: Either completion of ENGL 099 with a P or a 2.0 or higher, concurrent enrollment in ENGL& 101, a minimum ASSET Reading and Writing Score of 41, a minimum Compass Writing Score of 73, or a minimum Compass Reading Score of 81. (SCC, SFCC)

#### ENGL& 102 – Composition II (5 cr)

This course teaches students research skills by emphasizing the development of critical reading habits, investigative proficiency, and the writing of expository and persuasive prose including documented research essays. Students work to understand academic audiences, increase their clarity and objectivity, and adhere to standard formats. Prerequisite: ENGL& 101 with a 2.0 or better. (SCC, SFCC)

#### ENGL 104 – Grammar and Punctuation (3 cr)

Students review the traditional principles of grammar and punctuation and apply these principles. Prerequisite: Concurrent enrollment in ENGL& 101 or permission of instructor. (SCC, SFCC)

#### ENGL 105 – Pro/Tech: Basic Writing (5 cr)

This course develops and sharpens technical writing skills for competency in the professional arena. Students review basic components of clear, grammatically correct sentences, unified paragraphs and organized lists. They also develop strategies for information design. Assignment formats include writing for web pages, summaries, proposals, definitions, descriptions, promotional copy, resumes and professional correspondence. Students are expected to approach writing as a process: Drafting, revising, editing and proofreading. Whenever possible, assignments address topics pertinent to their technical fields. Prerequisite: ENGL 099 or permission of instructor. (SFCC)

#### ENGL 110 – Term Paper Workshop (2 cr)

Formulation, organization and presentation of a term or research paper; major mechanical aspects of paper development, including source guidelines, location and survey of materials, source citations, outlining and final format preparation. Prerequisite: Concurrent enrollment in a course other than ENGL& 102 and ENGL& 235. (SCC)

#### ENGL& 111 – Intro to Literature (5 cr)

Students read and discuss short stories, plays and poetry with an emphasis on better understanding and appreciation of literature. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL& 112 – Intro to Fiction (5 cr)

Students analyze, discuss and write about classic and contemporary fiction, both short stories and a novel. Emphasis is on perceiving the techniques writers use to create an aesthetic experience for readers. Although a historical approach is not used, appropriate background is presented to enrich students' experience of the works. Prerequisite: ENGL& 101 with a 2.0 or better or permission of instructor. SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL& 113 – Intro to Poetry (5 cr)

This course is a literary study of poetry which explores the themes, the craft and the history of the genre. Students analyze, discuss and write about a diverse selection of poems which offer a variety of experiences. Emphasis is on understanding the way poets manipulate language to create meaning. Prerequisite: ENGL& 101 with a 2.0 or better, or permission of instructor. SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL& 114 – Intro to Drama (5 cr)

This course is a literary study of dramatic literature, exploring the major themes, conventions and historical trends of drama from ancient Greece to the present. Students analyze, discuss and write about a diverse selection of plays which offer a variety of cultural experiences. Prerequisite: ENGL& 101 or permission of instructor. SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 120 – Applied Technical Writing for Vocations (3-5 cr)

Presentation of advanced technical writing forms with written assignments selected by vocational faculty from a menu, including such topics as: Short forms (catalog searches, requisitions, memorandums, etc.); technical reports; job search exercises; the proper use of graphics; research skills; revision skills. Prerequisite: ENGL 189 with a 2.0 or better, or permission of English department chair. (SCC)

## ENGL 150 — Academic Communication Skills for International Students (5 cr)

This advanced course is offered for students whose native languages are not English. Students learn and practice intensified reading and study strategies as well as other communication skills necessary for academic success. Prerequisite: Placement through assessment, permission of international student program adviser or permission of instructor. (SFCC)

#### ENGL 151 – College Reading and Study Skills (5 cr)

Students learn strategies to become independent learners and critical thinkers. Emphasis is on understanding how memory works and improving note taking, test taking, textbook reading, time management and vocabulary. The course cannot be taken simultaneously with ENGL 093 or ENGL 094. Prerequisite: Recommended placement score: COMPASS 80 or above, AS-SET 41 or above. (SCC, SFCC)

#### ENGL 152 - Reading Rate Improvement (2 cr)

This course is for students who read at the college level, and aims to increase dramatically their reading speed on average-difficulty, college-level material without loss of comprehension. Students learn skimming, scanning and rapid reading techniques. Prerequisite: Students must score at college reading level on the COMPASS test or receive permission of the Communications Learning Center director or course instructor. (SCC, SFCC)

#### ENGL 153 – Vocabulary Development (5 cr)

The class will be a lecture/discussion class with regular assignments, tests and quizzes. Major topics covered include the history of the English language, basic vocabulary tools, language diversity and vocabulary development strategies. Emphasis is placed on the mastery of major affixes and roots in the language. (SCC)

#### ENGL 156 - Listening and Note-taking (1 cr)

Designed to be linked to a content area course, this course provides students the opportunity to develop listening skills and apply appropriate lecture note-taking strategies to help students understand and retain important content-area concepts. Memory principles are discussed and applied. Recommended COMPASS reading placement of 80 and above, ASSET score of 40 and above. This course cannot be taken simultaneously with ENGL 093 or ENGL 094. Credit will not be granted for both ENGL 151 and ENGL 156. Prerequisite: Recommended placement score of 80 or above on the COMPASS test. (SFCC)

## ENGL 157 — Using Study Systems: Before, During, and After Reading (2 cr)

Designed to be linked to a content area course, this course examines effective before, during and after reading strategies for content-area course textbooks. Students will learn to develop and use a personal study system incorporating principles of time management. Recommended COMPASS reading placement of 80 and above, ASSET score of 40 and above. This course cannot be taken simultaneously with ENGL 093 or ENGL 094. Credit will not be granted for both ENGL 151 and ENGL 157. Prerequisite: Recommended placement score of 80 or above on the COMPASS test. (SFCC)

#### ENGL 158 – Test Preparation and Test-Taking (2 cr)

Designed to be linked to a content area course, this course examines effective before, during and after test-taking strategies for a specific content area. Students will learn, select and apply a variety of study aids. Principles of memory and time management will be applied to content-course test preparation. Recommended COMPASS reading placement of 80 and above, ASSET score of 40 and above. This course cannot be taken simultaneously with ENGL 093 or ENGL 094. Credit will not be granted for both ENGL 151 and ENGL 158. Prerequisite: Recommended placement score of 80 or above on the COMPASS test. (SFCC)

#### ENGL 188 – Introduction to Writing for Vocational Students (1-3 cr)

This course provides instruction in the fundamentals of writing (basic grammar, sentence structure, punctuation, spelling and organization). Students learn to write basic paragraphs including, but not limited to, process, description, cause and effect, and comparison and/or contrast. (SCC)

#### ENGL 189 – Writing for Vocational Students (1-3 cr)

Provides instruction in basic writing concepts, including sentence structure, paragraphs and longer papers. It also reviews fundamentals of grammar, punctuation and spelling. (SCC)

## ENGL 195 — Special Topics in English for International Students (1-5 cr)

This advanced-level communications course is offered to students whose native languages are not English. The emphasis of each course is a particular communication topic: Writing, conversation and listening, pronunciation, study skills, and reading. Content and scope vary from quarter to quarter. The course may be repeated for credit with different topics. Prerequisite: International student program adviser or permission of instructor. (SFCC)

#### See program/course abbreviation key on page 143.

#### ENGL 208 - British Literature to 1800 (5 cr)

This survey covers British literature from Beowulf through the 18th century, emphasizing the major writers and their relationships to the significant literary traditions of their time. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 209 - British Literature since 1800 (5 cr)

This survey focuses on the writing of Blake, Wordsworth, Coleridge, Keats, Byron, Shelley, Tennyson, Browning, Eliot, Yeats, Conrad, Lawrence, Joyce and selected contemporary writers. Instruction focuses on developing strategies for penetrating these writers by analyzing language, imagery, theme, plot, setting and character. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL& 220 - Intro to Shakespeare (5 cr)

Students read, analyze, interpret and evaluate Shakespeare's plays and sonnets. In addition, they learn about the historical, cultural and social milieu in which Shakespeare wrote his works. Students develop strategies for breaking Shakespeare's language barrier and learn to analyze plot, character, imagery and theme. Prerequisite: Minimum 2.0 in ENGL& 101. SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL& 235 – Technical Writing (5 cr)

Students learn to communicate information about a particular art, science, trade or profession. The course emphasizes such skills as clarity, objectivity, audience analysis and adherence to format. Students use subjects within their intended majors or career fields to write business correspondence, memoranda, resumes, mechanism descriptions, progress reports and analytical research reports. Prerequisite: Minimum 2.0 in ENGL& 101 or permission of instructor. (SCC, SFCC)

#### ENGL& 236 - Creative Writing I (5 cr)

This course teaches creative writing for beginners. It emphasizes writing as a craft; examines forms and techniques of professional writing through selective readings; offers students the opportunity to try their hand at a variety of styles, forms and techniques in both poetry and prose; as well as practice in writing, revision and editing skills. The format is an informal workshop that acquaints students with specialized skills such as preparing a manuscript for publication and working on a literary magazine in a variety of capacities. Prerequisite: ENGL& 101 or permission of instructor. (SCC, SFCC)

#### ENGL& 237 – Creative Writing II (5 cr)

This course teaches creative writing for intermediate writers. It is the logical continuation of ENGL& 236; however, it also is suited for students who, provided they have had prior writing experience, wish to pursue specific writing projects or are interested in both receiving and dispensing constructive peer critique in an informal workshop setting. Students have the opportunity to balance class activities with individual writing interests. The emphasis is on writing as a serious craft, and the course focuses primarily on poetry and prose though other forms of writing also may be included. Prerequisite: ENGL& 236 or permission of instructor. (SCC, SFCC)

#### ENGL 238 – Advanced Expository Writing (5 cr)

This class is a logical extension of ENGL& 101 and ENGL& 102, going beyond rhetorical modes and research skills to explore and practice the longer essay. Prerequisite: ENGL& 101, ENGL& 102. (SCC, SFCC)

#### ENGL 241 – The Bible as Literature (5 cr)

Students experience a literary study of history's most influential book. Readings from the Bible illustrate its major themes and genres. An exploration of the Bible's historical and cultural contexts provides background for these readings. Students gain a foundation for appreciating the Bible's massive impact on subsequent literature. (SCC)

#### ENGL 247 – American Multicultural Literature (5 cr)

This course surveys contemporary African American, Asian American, Latino American, and Native American literature from 1950s to the present and may include other diverse literatures, such as Jewish, Gay/Lesbian, or Indian, etc. (SCC, SFCC)

#### ENGL 248 — American Literature to 1865 (5 cr)

This survey course examines major writers of the period including Taylor, Edwards, Franklin, Irving, Cooper, Poe, Emerson, Thoreau, Hawthorne, Melville, Whitman, and Dickinson. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 249 — American Literature since 1865 (5 cr)

This survey course focuses on selected works of representative American writers from the Civil War to the present. Writers such as Twain, Chopin, Hemingway, Hughes, Ginsberg Plath, and Morrison among others are analyzed, paying particular attention to the cultural and historical contexts from which these diverse writers emerge and to which they speak. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

## 189

#### ENGL 251 - Introduction to Language (5 cr)

This course includes contemporary English language study introducing morphology, phonology, syntax and semantics. Language acquisition, animal communication, language communications and dialects are explored. (SCC)

#### ENGL 254 – Literary Magazine Production (2-5 cr)

A production course for Legend's, SCC's literary magazine. Discussion and criticism of writing, theory and practice; layout and design; process of publication, theory and practice. (SCC)

#### ENGL 255 – Advanced Literary Magazine Production (2-5 cr)

A continuation of the concepts introduced in ENGL 254 with emphasis on advanced concepts and production work involved in the creation of Legend's, SCC's literary magazine. Discussion and criticism of writing, theory and practice; layout and design; process of publication, theory and practice. Prerequisite: ENGL 254. (SCC)

#### ENGL 259 – African American Literature (5 cr)

This course examines the African American literary tradition through the works of key authors, from pre-Civil War writings to the present, locating these works in cultural and historical contexts. (SCC, SFCC)

#### ENGL 261 - Twentieth Century Novel (5 cr)

Students read, discuss and write about novels, leading them to a deeper appreciation and understanding of the genre and its practitioners. Novels vary from quarter to quarter. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### ENGL 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### ENGL 271 - World Literature to 1650 (5 cr)

This course explores foundational works of Middle Eastern, Mediterranean, and European civilizations from the dawn of literacy to the Renaissance. Representative works may include but are not limited to Gilgamesh, the Bible, The Odyssey Lysistrata, the Qu'ran, the Inferno and Othello. Prerequisite: Sophomore standing or ENGL& 101. SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 272 - World Literature since 1650 (5 cr)

Students read and trace the emergence of a global literature from the period of European colonialism to the contemporary multicultural world. Representative authors may include Moliere, Voltaire, Goethe, Tolstoy, Kafka, Pirandello, Narayan, Garcia Maquez and Achebe. Prerequisite: Sophomore standing and/or ENGL& 101. SFCC only: Recommended placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 278 - Women Writers (5 cr)

Students analyze, discuss and write about literature written by women in order to gain a greater understanding of and appreciation for the contributions of women to the field of literature. Emphasis is placed on the identification of themes, conventions and techniques of women writers across class and cultural boundaries. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### ENGL 294 - Special Topics in Writing (2-5 cr)

The course's content varies from quarter to quarter according to designation and credits filed in advance of each scheduling. Students may repeat the course for credit with different topics. Prerequisite: ENGL& 101, grade of 2.0 or above; or permission of instructor. (SCC, SFCC)

#### ENGL 295 – Special Studies in Literature (2-5 cr)

Students analyze, discuss and write about the literature of a particular genre, author or period. The course content varies and may include the following: Classical mythology, contemporary novels, mystery or crime fiction, historical novels, Western fiction, women writers, and Black and Chicano literature. The emphasis of each course is understanding the themes, conventions and techniques of the writers within the genre. The aim is to assist students in recognizing the ways in which literature reflects and challenges the values of its audience. Course may be repeated for credit with different topics. Prerequisite: ENGL& 101, grade of 2.0 or above; or permission of instructor. SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### **ENVIRONMENTAL SCIENCES**

#### ENVS& 101 - Intro to Env Science (5 cr)

A study of the basic concepts of ecology, including ecosystems structure and function, energy flow, biochemical cycles, limiting factors, population dynamics and community interactions. Emphasis is placed on the use of the scientific method to investigate man's current environmental problems and to propose possible solutions. Meets A.A. degree lab science requirement. (SCC, SFCC)

#### ENVS 104 – Environmental Conservation (5 cr)

This course introduces basic principles of conservation with emphasis on renewable natural resources, soils, water, forest, range, wildlife and recreation. (SCC)

#### ENVS 110 - Plant Biology (5 cr)

This course introduces biological principles and the relationship between plants and man. Students learn how the plant-dependent world ecosystem supports human existence. (SCC)

#### ENVS 207 – Wildlife Biology (5 cr)

This course provides students with the basic principles of wildlife ecology, habitat, population dynamics, behavior and management practices. (SCC)

#### ENVS 208 – Outdoor Recreation and Interpretation (3 cr)

Students learn about a variety of regional outdoor recreation activities, their management, with an emphasis on safety and environmental ethics. (SCC)

#### ENVS 210 - Environmental Soil Science (5 cr)

This course introduces the properties, characteristics and functions of forest soils found in natural conditions. The relationships between native vegetation and noncultivated soils are emphasized. (SCC)

#### ENVS 211 – Weather and Climate (5 cr)

This course introduces the descriptive treatment of meteorological and climatological phenomena including winds, weather fronts, air masses, clouds, temperature and precipitation. Basic computations, weather map analysis, forecasting and instrumentation techniques are emphasized. (SCC)

#### ENVS 217 – Field Sampling Techniques (4 cr)

This course builds on the basic ecology skills developed in NATRS 207 and focuses on applied sampling theory, field approaches, and practical applications relative to fish and wildlife habitat and population sampling methods. Prerequisite: NATRS 120, 122, ENVS 207 or permission of instructor. (SCC)

#### ENVS 218 – Environmental Science Conservation Planning (2 cr)

This course provides students with training in environmental conservation planning for working with private landowners and governmental agencies. Procedures and guidelines outlined in the National Planning Procedures handbook (NPPH) and current conservation planning policies are emphasized. Multidisciplinary in nature, this course prepares students to assess needs and impacts on and off-site. Writing conservation plans for private landowners and governmental agencies also is covered. (SCC)

#### ENVS 227 – Advanced Wildlife Biology (4 cr)

This course builds on the basic ecology skills developed in NATRS 207 and sampling skills developed in ENVS 217 and focuses on the integration and practical application of fish and wildlife ecological theory, applied sampling theory, and field skills in completing realistic projects and scenarios. Prerequisite: ENVS 217. (SCC)

#### ENVS 237 - Bird Identification (3 cr)

This course develops bird identification skills necessary to compete for jobs conducting landbird monitoring within this region. (SCC)

#### **FASHION MERCHANDISING**

#### FMDSE 111 – Fashion Merchandising Seminar (1-2 cr)

Gives the student an opportunity to pursue topics of interest related to real job situations, and serves as the vehicle for determining and granting work experience and cooperative education work experience. Must be taken concurrently by students who wish to receive work experience and cooperative education work experience. Prerequisite: Concurrent enrollment in fashion merchandising or retail management program. (SFCC)

#### FMDSE 112 – Fashion Merchandising Seminar (1-2 cr)

Gives the student an opportunity to pursue topics of interest related to real job situations, and serves as the vehicle for determining and granting work experience and cooperative education work experience. Must be taken concurrently by students who wish to receive work experience and cooperative education work experience. Prerequisite: Concurrent enrollment in fashion merchandising or retail management program. (SFCC)

#### FMDSE 113 – Fashion Merchandising Seminar (1-2 cr)

Gives the student an opportunity to pursue topics of interest related to real job situations, and serves as the vehicle for determining and granting work experience and cooperative education work experience. Must be taken concurrently by students who wish to receive work experience and cooperative education work experience. Prerequisite: Concurrent enrollment in fashion merchandising or retail management program. (SFCC)

See program/course abbreviation key on page 143.

#### FMDSE 150 – Principles of Retail Merchandising (5 cr)

Careers and opportunities in the retail field; an overview of store location, retail organization and merchandise management including promotion, pricing, salesmanship and inventory control methods. (SFCC)

#### FMDSE 152 – Professional Development in Business (2 cr)

Analysis and planning for career building, job seeking, job holding and progression in employment. Emphasizes personal adjustment in developing attitudes, personality, appearance and effective communication necessary for successful retail management. (SFCC)

#### FMDSE 155 - Fashion Trends (3 cr)

Fashion terminology and fashion institutions are analyzed. The role of fashion in apparel and nonapparel goods along with the recurrence of styles are traced through history. A study of the fashion concept, major designers, and fashion fads and cycles is presented. (SFCC)

#### FMDSE 160 - Merchandise Presentation (5 cr)

Learn to see retail stores as a professional sees them. Instruction in basic terminology, design principles, signing and graphics, and the use of mannequins is combined with practical experience in creating displays that sell. (SFCC)

#### FMDSE 161 – Merchandise Trends (3 cr)

Tune into the current merchandise trends in retail. Explore the world of fashion and its effect on what you see in today's stores. Lectures and discussions on the subjects of clothing, famous designers, brand names, home furnishings and publications. (SFCC)

#### FMDSE 180 - Retail Sales Techniques (3 cr)

Effective retail sales techniques are discussed and practiced in a seminar atmosphere. Understanding of professional skills and attitudes necessary to become an effective retail sales professional is emphasized. Student develops practical application of retail sales principles through role playing, sales demonstrations and personalized learning projects. (SFCC)

#### FMDSE 201 – Fashion Fabrics (3 cr)

The origin and construction of current natural and synthetic fibers are studied together with their uses, characteristics and sources of supply. The textile laws and regulations concerning the labeling of textiles also are analyzed. (SFCC)

#### FMDSE 210 – Merchandising Management (5 cr)

Deals with percentages, trade discounts, markup, markdown and related calculations. The concepts of open-to-buy price lines, budgeting, inventory control systems and assortment planning are analyzed. Prerequisite: BUS 103 and FMDSE 150 or permission of instructor. (SFCC)

#### FMDSE 224 – Principles of Retail Promotion (5 cr)

This course is designed to increase the student's understanding of advertising and sales promotion related to retailing. This objective is accomplished in two ways: 1) through the use of the text which outlines the concepts and problems of retail advertising and sales promotion, and gives examples of methods and techniques used in the field; and 2) through lectures, class discussions, field trips, guest speakers and audiovisual aids. (SFCC)

#### FMDSE 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SFCC)

#### **FINANCIAL SERVICES/TELLER**

#### BANK 101 - Introduction to Banking Industry (4 cr)

The course provides students with a broad overview of the banking industry including different kinds of institutions, forms, policies and procedures, and duties and responsibilities of bank tellers. (SCC)

#### BANK 102 - Professional Standards in Banking (1 cr)

The course discusses and explains professional standards for a bank teller including dress code, human relations and attitudes. (SCC)

#### BANK 103 - Introduction to Teller Operations (4 cr)

This course discusses teller operations. Emphasis is placed on handling money and working with checks, savings and checking accounts, and negotiable instruments. Selling and cross-selling techniques are discussed before students role play. (SCC)

#### BANK 104 – Teller Operations Applications (3 cr)

This course gives hands-on teller applications. Emphasis is placed on balancing cash drawers, using PC-based computer software to record various banking transactions, operating 10-key calculators to gain 10-key-by-touch skills and accessing information on the Internet. (SCC)

#### **FIRE OFFICER**

#### FOD 101 - Fire Officer IA (3 cr)

This course introduces students to a fire officer's duties. Content includes the required mindset, report writing, diversity, workplace safety, decision making, quality assurance, supervisory practices and pre-incident planning. Prerequisite: Fire department affiliation. (SCC)

#### FOD 102 - Fire Officer IA Work Based Learning (3 cr)

Students learn to manage task assignments, citizens' complaints, accident investigations, member assistant programs, and to apply human resource management policies and safety regulations. Prerequisite: FOD 101 and worksite authorization agreement. (SCC)

#### FOD 103 – Fire Officer IB (3 cr)

This course gives students a profound understanding of a fire officer's duties. Determining fire cause, emergency operations, compliance issues, scene safety, Incident Management System (IMS), strategy/tactics, assessment and action planning, and the public information officer (PIO) functions are emphasized. Prerequisite: FOD 102 and fire department affiliation. (SCC)

#### FOD 104 – Fire Officer IB Work Based Learning (3 cr)

This course includes directing training evolutions, managing public inquiries, determining preliminary fire cause, pre-incident planning, incident action planning and emergency operations. Prerequisite: FOD 103 and work site authorization agreement. (SCC)

#### FOD 110 - Fire Service Leadership (3 cr)

This course emphasizes the effectiveness of a fire officer. Content includes role conflict, creativity, personal power, ethics, problem solving, decision making, situational leadership, delegating, coaching and discipline. Pre-requisite: FOD 103 and fire department affiliation. (SCC)

#### FOD 131 – Fire Service Instructor I (3 cr)

This course introduces students to the skills necessary for fire service instructors. Content includes instructor challenges, presentation skills, legal considerations, student learning, delivery methods, instructional media and evaluating performance. (SCC)

#### FOD 132 - Fire Service Instructor II Work Based Learning (3 cr)

Students develop skills in the four-step lesson plan. Students design curriculum and present lessons based on their awareness in the fire service utilizing the skills learned from instructor courses. Prerequisite: Fire department affiliation. (SCC)

#### FOD 133 - Fire Service Instructor II (3 cr)

Students learn to advance as a fire service instructor in this course. Content includes planning models, needs and task analysis, lesson plan development, performance testing, supervisor training programs and critiques. Prerequisite: FOD 132 and fire department affiliation. (SCC)

#### FOD 140 – Fire Service Incident Safety Officer (2 cr)

This course is designed to help students identify the role of the safety officer on specific types of incidents. Students learn to develop and apply safety plans for various incidents. Prerequisite: Fire department affiliation. (SCC)

#### FOD 201 - Fire Officer IIA (3 cr)

Further understanding of a fire officer's duties is emphasized in this course. Content includes interaction with government agencies, report writing, managing human resources, RMS, budgets, performance appraisals, exposure reports and public education. Prerequisite: FOD 104 and fire department affiliation. (SCC)

#### FOD 202 – Fire Officer IIA Work Based Learning (3 cr)

This course emphasizes maximizing member and unit performance, delivering public education, changing policies, budget preparation, report writing and analyzing accident/injury reports. Prerequisite: FOD 201 and work site authorization agreement. (SCC)

#### FOD 203 - Fire Officer IIB (3 cr)

Further understanding of a fire officer's duties is emphasized in this course. Content includes interaction with government agencies, report writing, managing human resources, RMS, budgets, performance appraisals, exposure reports and public education. Prerequisite: FOD 202 and fire department affiliation. (SCC)

#### FOD 204 – Fire Officer IIB Work Based Learning (3 cr)

This course emphasizes maximizing member and unit performance, preparing news releases, conducting fire inspections, determining a fire's point of origin and producing incident operational plans. Prerequisite: FOD 203 and work site authorization agreement. (SCC)

#### FOD 205 - Fire Investigation (3 cr)

Students learn methods of determining the area of fire origin, fire causes, fire spread and other aspects of fire behavior; recognition of accidental and incendiary fires; securing and preserving evidence of a suspected arson; witness interrogation methods; arson laws and court procedures; court case preparation and testimony; coordination with other investigative agencies; compilation of reports and records; and review of case histories. Prerequisite: Volunteer or career firefighter or permission of program coordinator. (SCC)

#### See program/course abbreviation key on page 143.

# COURSE DESCRIPTIONS

#### FOD 206 - Fire Inspection and Codes (4 cr)

Students study the fire code as it applies to fire prevention inspections at the fire company level. The fire code's relationship to the building Code and other recognized standards are presented. General provisions of the fire code maintenance of exit way, fire protection, flammable and combustible liquids, liquified petroleum gases, places of assembly, and general precautions against fire are emphasized. Discussions of public relations and alternate methods and materials give the course a realistic approach to field operations. Prerequisite: Volunteer or career firefighter or permission of program coordinator. (SCC)

#### FOD 210 - Incident Management-Multi-Company Operations (3 cr)

This course emphasizes the management of multi-alarm incidents. Content includes expanding incident management systems (IMS), scene safety, managing resources, pre-incident planning, decision making, communications, post-incident analysis and multiple scenarios. Prerequisite: Fire department affiliation. (SCC)

#### FIRE SCIENCE TECHNOLOGY

#### FS 100 - Orientation to Fire Science (2 cr)

An introductory class designed to provide students with the history and philosophy of fire science. Content areas to be covered in this course also include career orientation, employment requirements and fire personnel responsibilities. (SCC)

#### FS 105 – Principles of Hydraulics (4 cr)

Students are introduced to the fundamentals of fluids in motion and at rest and their applications to the fire service industry. (SCC)

#### FS 152 – Building Construction (3 cr)

This course covers the classifications of buildings and what constitutes a rated building. Fire and life safety devices required by the U.B.C. are emphasized. The installation of fire assemblies and appliances are introduced. (SCC)

#### FS 160 - Fire Tactics (3 cr)

This course introduces students to the basic principles of fire tactics and strategies, and provides students with the skills needed to safely and effectively supervise company-level fire ground operations. Principles of size-up and fire spread, hazard identification, fire attack methodology based on the principles of RECEO-VS, supervision and coordination of assigned resources, and fire ground safety are emphasized. (SCC)

#### FS 170 - Hazardous Materials I (3 cr)

Students study hazardous materials regulations; terminology; identification systems, shipping and storage containers; incident command systems and basic analysis; information resources; chemical protective clothing, and decontamination. (SCC)

#### FS 177 – Wildland Fire Operations (3 cr)

This course is designed to prepare the student to fight wildland fires. It includes information on safety practices and initial control strategies, and meets the NWCG requirements for S-130/S-190 and L-130. Prerequisite: Volunteer or career firefighter or acceptance by special permission. (SCC)

#### FS 200 – Hazardous Waste Operations and Emergency Response (3 cr)

The Occupational Safety and Health Administration (OSHA) requires that all employees working and handling hazardous waste be provided with a minimal amount of safety training. Course content meets and/or exceeds the guidelines as regulated by OSHA. (SCC)

#### FS 211 - Introduction to Fire Science (4 cr)

This course introduces students to the basics of firefighting. Topics include safety, fire behavior, personal protective equipment, portable extinguishers, search and rescue, ropes and knots, hoses, ladders, and emergency vehicle accident prevention. Prerequisite: Successful completion of first year general education requirements and concurrent enrollment in FS 212. (SCC)

#### FS 212 – Fire Science Applications I (6 cr)

Practical applications using firefighting equipment including personal protective equipment, hoses, ladders and extinguishers are emphasized. Emergency vehicle accident prevention methods also are included. (SCC)

#### FS 220 - Fire Protection Systems (2 cr)

This course introduces water type fire extinguishing sprinkler systems, protections systems for special hazards, and fire alarm protection systems. Students visit local facilities that have fire protection equipment and systems and learn to make critical appraisals. (SCC)

#### FS 221 - Intermediate Fire Science (4 cr)

This course provides a continuation of the concepts introduced in FS 211 with emphasis on the incident command system, forcible entry, ventilation, salvage, overhaul, fire cause determination, communications and water supply. Prerequisite: Successful completion of FS 211, 212 and concurrent enrollment in FS 222. (SCC)

#### FS 222 – Fire Science Applications II (6 cr)

Practical applications using the incident command system are emphasized in this course. Practical skills include forcible entry, ventilation, salvage, overhaul, fire cause determination, communications and water supply. Prerequisite: Successful completion of FS 211, 212 and concurrent enrollment in FS 221. (SCC)

#### FS 231 – Advanced Fire Science (4 cr)

This course provides a continuation of the concepts introduced in FS 211 and 221 with emphasis on fire streams, fire suppression, heavy-duty rescue, vehicle fires, wildland fires and fire prevention. Prerequisite: Successful completion of FS 221, 222 and concurrent enrollment in FS 232. (SCC)

#### FS 232 – Fire Science Applications III (6 cr)

Practical lab applications utilizing skills from FS 212 and 222 are emphasized. Fire streams, fire suppression techniques, heavy-duty rescue, vehicle fires, wildland fires and fire prevention also are emphasized. Prerequisite: Successful completion of FS 221, 222 and concurrent enrollment in FS 231. (SCC)

#### FS 233 – Professional Development (2 cr)

This course explores a variety of self-development activities that assist students in gaining employment after graduation. These activities include practice civil service examinations, both written and oral, in addition to exercises in professional demeanor as appropriate to fire fighters. This course is required in one of the student's last two quarters prior to graduation. (SCC)

#### FS 241 – Recruit Fire Fighter Academy (5 cr)

This course provides the students with the basic skills and knowledge needed to perform fire fighting tasks under direct supervision. Objectives are based on NFPA 1001, Fire Fighter 1, and Fire Fighter Professional Standards. Prerequisite: Active member in a fire department. (SCC)

#### FS 248 - Rescue System I (3 cr)

This course provides the students with the ability to apply basic search and rescue skills, approach rescue situations safely and understand the organizational concerns at a structural collapse incident. Prerequisite: Firefighter I or equivalent. (SCC)

#### FS 250 - Fire Science Recruit Academy Theory (21 cr)

A comprehensive study of fire science theory, equipment, and methods used to fight fires, and the health and safety factors that may affect the firefighter. Prerequisite: Open only to students accepted into the Recruit Academy. (SCC)

#### FS 251 - Fire Science Recruit Academy Lab (16 cr)

Practical applications and fire drills utilizing a variety of fire fighting tactics and equipment. Related physical and manipulative skills also are practiced. Prerequisite: Open only to students accepted into the Recruit Academy. (SCC)

#### FS 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### FS 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

### FS 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### FRENCH

#### FRCH& 121 — French I (5 cr)

FRCH& 121, 122 and 123 are parts of a beginning series designed to develop skills in reading, writing, speaking and listening to a basic level of proficiency. It enables the student to communicate basic ideas in French and understand the cultural context of the language through the study of the French-speaking regions around the world. FRCH& 121 is taught through an experiential methodology that entails the exclusive use of French in the classroom, emphasis on oral and written communicative skills, interpersonal exchange of ideas, interactive presentation of grammar, a multimedia approach and daily practice outside of class. Language laboratory work is an integral part of this language series. (SCC, SFCC)

#### FRCH& 122 - French II (5 cr)

FRCH& 121, 122 and 123 are parts of a beginning series designed to develop skills in reading, writing, speaking and listening to a basic level of proficiency. It enables the student to communicate basic ideas in French and understand the cultural context of the language through the study of the French-speaking regions around the world. FRCH& 121 is taught through an experiential methodology that entails the exclusive use of French in the classroom, emphasis on oral and written communicative skills, interpersonal exchange of ideas, interactive presentation of grammar, a multimedia approach and daily practice outside of class. Language laboratory work is an integral part of this language series. Prerequisite: FRCH& 121 or one year of high school French or permission of instructor. (SCC, SFCC)

#### FRCH& 123 — French III (5 cr)

FRCH& 121, 122 and 123 are parts of a beginning series designed to develop skills in reading, writing, speaking and listening to a basic level of proficiency. It enables the student to communicate basic ideas in French and understand the cultural context of the language through the study of the French-speaking regions around the world. FRCH& 121 is taught through an experiential methodology that entails the exclusive use of French in the classroom, emphasis on oral and written communicative skills, interpersonal exchange of ideas, interactive presentation of grammar, a multimedia approach and daily practice outside of class. Language laboratory work is an integral part of this language series. Prerequisite: FRCH& 122 or one and one-half years of high school French or permission of instructor. (SCC, SFCC)

#### FRCH& 221 - French IV (5 cr)

FRCH& 221, 222 and 223 are parts of an intensive intermediate-level language series designed to answer the needs of students coming from varying backgrounds. These students are studying French for a multitude of reasons and hope to review the grammar taught in our 100-level classes. FRCH& 221, 222 and 223 aim at the further development of the students' four skills (reading, writing, listening and speaking) up to an intermediate level of proficiency. Emphasis is on reviewing grammar in order to express oneself in writing or in conversations, and experiencing the language in its cultural contexts through the study of the French-speaking regions around the world. FRCH& 221, 222 and 223 are taught through an experiential methodology, which entails exclusive use of French in the classroom, emphasis on communicative skills, interactive and contextualized use of grammar through textbook materials, on-line exercises, audio-tapes, magazines and various other media, and daily practice outside of class. Prerequisite: FRCH& 123 or permission of instructor. (SCC, SFCC)

#### FRCH& 222 - French V (5 cr)

FRCH& 221, 222 and 223 are parts of an intensive intermediate-level language series designed to answer the needs of students coming from varying backgrounds. These students are studying French for a multitude of reasons and hope to review the grammar taught in our 100-level classes. FRCH& 221, 222 and 223 aim at the further development of the students' four skills (reading, writing, listening and speaking) up to an intermediate level of proficiency. Emphasis is on reviewing grammar in order to express oneself in writing or in conversations, and experiencing the language in its cultural contexts through the study of the French-speaking regions around the world. FRCH& 221, 222 and 223 are taught through an experiential methodology, which entails exclusive use of French in the classroom, emphasis on communicative skills, interactive and contextualized use of grammar through textbook materials, on-line exercises, audio-tapes, magazines and various other media, and daily practice outside of class. Prerequisite: FRCH& 221 or permission of instructor. (SCC, SFCC)

#### FRCH& 223 - French VI (5 cr)

FRCH& 221, 222 and 223 are parts of an intensive intermediate-level language series designed to answer the needs of students coming from varying backgrounds. These students are studying French for a multitude of reasons and hope to review the grammar taught in our 100-level classes. FRCH& 221, 222 and 223 aim at the further development of the students' four skills (reading, writing, listening and speaking) up to an intermediate level of proficiency. Emphasis is on reviewing grammar in order to express oneself in writing or in conversations, and experiencing the language in its cultural contexts through the study of the French-speaking regions around the world. FRCH& 221, 222 and 223 are taught through an experiential methodology, which entails exclusive use of French in the classroom, emphasis on communicative skills, interactive and contextualized use of grammar through textbook materials, on-line exercises, audio-tapes, magazines and various other media, and daily practice outside of class. Prerequisite: FRCH& 222 or permission of instructor. (SCC, SFCC)

#### FRCH 241 – Conversation and Culture (2 cr)

FRCH 241 is designed for students who wish to develop their French conversational skills up to an intermediate level, through class discussions and short oral presentations. At the first meeting, student participants will have the opportunity to design the course topic discussions based on, but not limited to, the following topics: Diversity of France, politics, economics, European Union, currency, family values, stereotypes, history, geography, media, French cultural and literary traditions, and current events. Use of the ILC is recommended. Prerequisite: FRCH& 123 or permission of instructor. (SCC, SFCC)

FRCH 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

FRCH 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### FUNDAMENTALS OF SCIENCE

#### FSCI 098 – Fundamentals of Science (5 cr)

An introduction to the basic ideas of the scientific method and the tools and concepts needed to succeed in an introductory collegiate science course. (SCC)

#### FSCI 101 — Interdisciplinary Science (5 cr)

This is the first of a three-quarter sequence of classes. An integrated science course that involves physics, astronomy, and geology. Climate and global change will be used as a theme to develop basic concepts in science, such as measurement, analysis of data, hypothesis generation, and testing. Students will actively be involved in class as they collect and analyze data, and state relevant facts pertaining to a selection of topics involving concepts in physics, astronomy, and geology. Students will maintain a laboratory notebook and formally present data to peers throughout the course. Prerequisite: 2.0 or better in MATH 099. (SCC, SFCC)

#### FSCI 102 – Interdisciplinary Science (5 cr)

This is the second of a three-quarter sequence of classes for non-science majors. An integrated science course that involves physics, chemistry, and geology. The course will examine themes such as climate with respect to global change. Change will be used as a theme to develop basic concepts in science, such as measurement, analysis of data, hypothesis generation, and testing. Students will actively be involved in class as they collect and analyze data, and state relevant facts pertaining to a selection of topics involving concepts in physics, chemistry, and geology. Students will maintain a laboratory notebook and formally present data to peers throughout the course. Prerequisite: 2.0 or better in FSCI 101. (SCC, SFCC)

#### FSCI 103 – Interdisciplinary Science (5 cr)

This is the third of a three-quarter sequence of classes for nonscience majors. An integrated science course that involves biology, ecology, physics, and chemistry. Introduction to cellular, organismal and ecosystem biology, including human systems, for students majoring in elementary education. Includes inquiry-based biological investigations that support science instruction outlined in the National Science Education Standards and Washington Essential Academic Learning Requirements. Prerequisite: A 2.0 in FSCI 102 or permission of the instructor. (SCC, SFCC)

#### **GENERAL STUDIES**

#### GENST 090 - Pretechnical Basic Skills (10-18 cr)

Designed to familiarize the student with the requirements to succeed in the engineering-related field. Additionally, fundamental skill enhancement is provided in reading, mathematics, and written and verbal communication; and study techniques such as test taking, lecture notes and using textbooks. This course feeds into fluid power, electronics, civil engineering technology, mechanical engineering technology, architectural technology, industrial electricity and robotics as a pre-engineering course. (SCC)

#### GENST 100 – Library Research Skills (2 cr)

This is a course designed for students from all programs. Students discover and explore information resources and learn successful library research techniques. Emphasis is placed on skills that are useful throughout college, as well as for lifelong learning. (SCC)

#### GENST 104 – The Internet and the Art of Research (1-3 cr)

An introduction to the Internet and its research potential is demonstrated. Students use Internet-based resources to locate books, periodicals and other information. Efficient searching techniques and strategies to evaluate information are stressed. (SFCC)

#### GENST 105 – Portfolio Development (3 cr)

A lecture/discussion course designed to instruct students in methods utilized to summarize and document prior learning experiences. Students describe skills, competencies and areas of knowledge that may have been attained outside of a traditional classroom environment. Prerequisite: Minimum ASSET score of 40 - reading and writing. (SCC)

#### GENST 106 – College Success (2-3 cr)

This course provides an opportunity for students to learn about services and strategies to help them become successful college students. The overall goal is to increase the likelihood that the students' year(s) at SFCC/SCC is successful, both academically and socially. It is designed for entering students and other students interested in becoming more effective college students. (SCC, SFCC)

#### GENST 107 – First Year Introduction (1 cr)

This course provides new SFCC students with a comprehensive introduction to college. Through seminars, learning modules and sample classes, students are expected to develop the fundamental skills and attitudes necessary for success in college. FYI helps students connect with other students, faculty and staff. Students learn about campus resources and develop an educational plan. (SFCC)

COURSE DESCRIPTIONS

#### GENST 108 - Learning for the 21st Century (5 cr)

Emphasis is on building the skills and techniques for successful life long learning and identifying personal learning styles and strengths that facilitate learning in an on-line environment. Through a quarter-long research project on a global issue, participants examine various strategies for locating, evaluating and applying information resources in the research process with attention to information policy issues like censorship and freedom of information. (SCC, SFCC)

#### GENST 109 - Applied Critical Thinking (3 cr)

In this course, learners gain mastery of the following fundamental thinking skills competencies: Assumption, inferences, implications, conclusions, questions at issue, points of view, concepts and purpose of thinking consequences. Learners master the ability to assess their thinking by using the following intellectual standards: Clarity, specificity, relevance, logic, significance, accuracy, preciseness, consistency, completeness, depth and broadness. Learners practice reasoning abilities and begin developing intellectual traits. (SCC, SFCC)

#### GENST 110 - Critical Thinking in Women's Studies (2 cr)

A survey course identifying barriers women have faced throughout history; the ways different cultures have bound women to a narrow range of options because of attitudes, beliefs, customs and traditions; and how laws have been used to maintain and perpetuate women's vulnerability to abuse and poverty. By critically thinking about the economics of being a woman, and by learning effective skills in interpersonal relationships, individual women and men can develop ways to overcome prejudice. (SFCC)

#### GENST 114 - Thriving In College (2 cr)

Learn about college life! This course for new college students teaches success strategies by helping students to become familiar with the campus, to discover resources available to assist them in their collegiate journey, and to connect them with their peers. Students will learn how to interact effectively with instructors and will gain a solid foundation in study skills that are crucial for academic achievement. The class is intended to be taken concurrently with a 5-credit content area course. (SFCC)

#### GENST 115 - Internet Issues (2 cr)

Using effective web searching techniques, students in this course explore controversial topics that relate to the Internet, while discovering the richness of net resources. Issues such as privacy, encryption, censorship, freedom of information and other prominent topics on the Internet will be explored while students learn to be effective searchers. Information is analyzed, compared and evaluated, as are the search engines and indexes used to retrieve it. (SFCC)

#### GENST 140 - Adventures in Attitude (3 cr)

Students learn to recognize personal attitudes and choose positive attitudes which result in positive successful living. Content includes human relations, attitude awareness, planning and self-management, personality development, group dynamics, communication and problem solving. (SCC)

#### GENST 150 - General Studies Seminar (1-5 cr)

A seminar course to support various learning activities that assist students in the development of personal, professional and educational goals. Instructors may choose from a menu of topics to be presented. Areas of instruction may include human relations, interpersonal skills, written communications, decision-making/problem-solving techniques and/or workplace requirements. Course content varies depending on the number of credits and instructional areas chosen. (SCC)

#### GENST 151 – General Studies Seminar (1-5 cr)

A seminar course to support various learning activities that assist students in the development of personal, professional and educational goals. Instructors may choose from a menu of topics to be presented. Areas of instruction may include human relations, interpersonal skills, written communications, decision-making/problem-solving techniques and/or workplace requirements. Course content varies depending on the number of credits and instructional areas chosen. (SCC)

#### GENST 152 – General Studies Seminar (1-5 cr)

A seminar course to support various learning activities that assist students in the development of personal, professional and educational goals. Instructors may choose from a menu of topics to be presented. Areas of instruction may include human relations, interpersonal skills, written communications, decision-making/problem-solving techniques and/or workplace requirements. Course content varies depending on the number of credits and instructional areas chosen. (SCC)

#### GENST 154 – Introduction to Service Learning (2-5 cr)

This class combines an academic study of the foundations of the contemporary movement toward service learning with direct experience of community outreach. By building on learning through service to an area of local community need, students explore their own assumptions, values, questions, and beliefs regarding some of the key issues in social philosophy and ethics and democratic citizenship. Through students' community service experience, lecture, reading and research, students become familiar with individual and group aspects of human behavior. (SFCC)

#### GENST 155 – Service Learning Project (1 cr)

This course combines the academic study of service learning with practical experiences by student participation in the community. The course is directly linked to the academic or professional/technical area of study in which the student is engaged. Prerequisite: Permission of instructor. (SCC)

#### GENST 202 – Assertive Training for Women (2 cr)

Individuals develop skills for expressing feelings and exercising rights without impinging on others, increase self-awareness and develop techniques of effective problem solving. (SCC)

**GENST 203 — Prior Learning Assessment Portfolio Development (1 cr)** This class explores the use of a portfolio to document learning experiences.

Students develop a personal and/or professional portfolio resource notebook by using their choice of media. Prerequisite: ENGL& 101 or above or 80 percent pass of COMPASS testing. (SFCC)

**GENST 266** – **Cooperative Education Seminar (1-2 cr)** For course description, see Cooperative Education. (SCC, SFCC)

**GENST 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SCC, SFCC)

#### GENST 280 - Honors Seminar (1-5 cr)

The course offers students an opportunity through reading and discussion to deal with topics and ideas not normally covered in the classes presently offered. These topics and ideas are generally broader in scope and often overlap in four or five areas. Topics cover concepts to the basic foundation of liberal arts. This seminar deals with basic concepts through discussion and readings necessary for the development of a liberally educated mind. Exceptional students probe horizons of the collegial atmosphere in their quest of a liberal education. Students and faculty sit together and share concepts that affect our notion of the world around us. The course is restricted to the student who is looking for more than what is offered in the normal curriculum, and who demonstrates the motivation toward this. Prerequisite: Permission of honors coordinator with 3.5 GPA or above usually required. (SFCC)

#### GENST 291 – Educational Tour (1-5 cr)

An educational tour sponsored by one or more departments offering students an opportunity to explore a particular subject off campus. The purpose of the trip is to broaden a student's understanding of material covered in the classroom or to expose the student to cultural experiences not available on campus. The tours may be to either domestic or foreign locations. (SCC, SFCC)

#### GENST 292 – Educational Tour (1-5 cr)

An educational tour sponsored by one or more departments offering students an opportunity to explore a particular subject off campus. The purpose of the trip is to broaden a student's understanding of material covered in the classroom or to expose the student to cultural experiences not available on campus. The tours may be to either domestic or foreign locations. (SCC, SFCC)

#### GENST 293 – Educational Tour (1-5 cr)

An educational tour sponsored by one or more departments offering students an opportunity to explore a particular subject off campus. The purpose of the trip is to broaden a student's understanding of material covered in the classroom or to expose the student to cultural experiences not available on campus. The tours may be to either domestic or foreign locations. (SCC, SFCC)

#### 194 **GEOGRAPHY**

#### GEOG 101 – Introduction to Geography (5 cr)

An introduction to human and physical geography including mankind's reciprocal relationship with environmental concerns, world place geography, geomorphology and economic geography. Optional field trips included to assist students in better understanding course content. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### GEOG 230 – World Regional Geography (5 cr)

A survey of world geographical relationships. Includes an examination of the distribution of selected physical and human phenomenon and the processes responsible for the distributions and varying interrelationships from place to place between humans and their environment. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### GEOG 260 - The Violent Earth (5 cr)

Students are offered a descriptive and interpretive examination of the influence and relationship of man with the natural hazards of the earth, including identification, analysis, distribution and geographic patterning of the following: Hurricanes, water spouts, disease, tornadoes, wind shear, tsunamis, tides, river tides, volcanoes, glaciers, earthquakes, quick clay (spontaneous liquification), landslides, floods, droughts and lightning. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### GEOLOGY

#### GEOL& 100 - Survey of Earth Science (5 cr)

This course, offered as a television class, is a survey of physical geology including palenontology, mapping and earth history. While some laboratory work and field trips are elements of this course, it does not qualify as a laboratory science. Credit will not be granted for both GEOL& 101 and GEOL& 100. This is a physical science course. (SCC, SFCC)

#### GEOL& 101 – Intro Physical Geology (5 cr)

An introductory course in geology designed to acquaint beginning geology students with the importance of geology and minerals in their everyday lives through the study of the general concepts of geology, plate tectonics, earthquakes, mountain building, formation of continents, materials on earth, erosional processes and patterns, underground water, glaciation, and shoreline formations. laboratory covers mineral and rock identification and map interpretation. Credit will not be granted for both GEOL& 101 and GEOL& 100. (SCC, SFCC)

#### GEOL 114 – Earth Systems Science--Online (5 cr)

This course introduces students to the physical evidence, scientific principles and methods of analysis necessary to understand how Earth systems interact to generate and sustain the physical environment in which we live. It is taught online via the Internet. This course does not qualify as a laboratory science. Prerequisite: Working knowledge of basic algebra and ENGL 098. (SCC, SFCC)

#### GEOL 116 - Environmental Geology (5 cr)

An introduction to environmental geology including geologic processes and land forms. An emphasis on practical applications using case history studies involving engineering and environmental problems as they relate to geologic settings. (SCC, SFCC)

#### GEOL 201 – The Earth Through Time (5 cr)

The course is an overview of earth's geologic history through time. Topics of discussion include the geologic formation of earth and its rock types, as well as the evolution of lifeforms through time. The effects of plate tectonics on paleoclimates, paleogeographies, and evolutionary patterns for the major continental and marine ecosystems are considered. Meets A.A. degree lab science requirement. Prerequisite: GEOL& 101, 100 or 1 year of high school science. (SCC)

#### GEOL 210 – Pacific Northwest Geology (5 cr)

An overview of the geologic history of the Pacific Northwest. Emphasis is on the plate tectonic relationships between the various geologic regions of the Northwest via hands-on interpretations of rocks, geologic maps and field observations. Prerequisite: GEOL& 101 or permission of instructor. (SCC)

#### GERMAN

#### GERM& 121 - German I (5 cr)

Introduction to German culture with emphasis on conversation with some writing. (SCC, SFCC)

#### GERM& 122 – German II (5 cr)

Introduction to German culture with emphasis on conversation with some writing. Prerequisite: GERM& 121 or equivalent. (SCC, SFCC)

#### GERM& 123 – German III (5 cr)

Introduction to German culture with emphasis on conversation with some writing. Prerequisite: GERM& 122 or equivalent. (SCC, SFCC)

#### GERM 141 – German Conversation and Culture (5 cr)

This course accommodates students with individual language needs. Through conversation, supplementary readings, writing and individual projects in German, students expand the study of culture, civilization and contemporary life of German speaking people. Conducted in German. Prerequisite: One year of college German or permission of instructor. (SCC, SFCC)

#### GERM& 221 - German IV (5 cr)

This is a review of German grammar, supplemented by films and slides from the Consulate General of the Federal Republic of Germany. Prerequisite: GERM& 123 or equivalent. (SCC, SFCC)

#### GERM& 222 – German V (5 cr)

This course covers conversation based upon current newspaper and magazine articles. Composition based upon classics of German literature. Prerequisite: GERM& 221 or equivalent. (SCC, SFCC)

#### GERM& 223 – German VI (5 cr)

Emphasis upon composition, analysis of short essays and stories representative of important aspects of German culture are covered in this course. Prerequisite: GERM& 222 or equivalent. (SCC, SFCC)

#### GERM 241 – German Conversation and Culture (5 cr)

This course accommodates students with individual language needs. Through conversation, supplementary readings, writing and individual projects in German, students expand the study of culture, civilization and contemporary life of German speaking people. Conducted in German. Prerequisite: Two years of college German or permission of instructor. (SCC, SFCC)

#### **GERM 266 – Cooperative Education Seminar (1-2 cr)**

For course description, see Cooperative Education. (SFCC)

#### **GERONTOLOGY PARAPROFESSIONAL**

#### HSGER 101 – Introduction to Social Gerontology (5 cr)

Introduction to the theories of ageism created and institutionalized by many forces--historical, social, cultural and psychological. Emphasis on the study, research and practicalities of serving the needs of the elderly in contemporary American society. (SFCC)

#### HSGER 110 – Leisure, Learning, and Living (5 cr)

General data and observations as philosophy, trends and research in the leisure field; directed theoretical analysis of these studies as they pertain to the aging person; and contact with observations, progress visits, interviews and reports are addressed in this course. (SFCC)

#### HSGER 115 - Multi-Cultural Perspectives in Human Services (5 cr)

This course explores the experiences of minority cultures within the context of human services. Emphasis on investigating how each of the subcultures imposes its own distinctive normative structure on the individual, and the implications of cultural background on the planning and delivery of human services is addressed. (SFCC)

#### HSGER 201 – Aging and Personality (5 cr)

Personality theory and concepts of adjustment in terms of normal and pathological aging, and an overview of rehabilitative efforts with the aged. (SFCC)

#### HSGER 210 – Aging and Mental Health (5 cr)

An introduction to the theory and skills of aging and mental health as related to the aging process. As the aging process develops, several environmental changes occur that bring about physiological and psychological changes in some elderly persons. Students study the biological determinants, the speed of normal behavioral changes with age, the awareness of dysfunctions and senile dementia of the Alzheimer's type. (SFCC)

#### HSGER 221 - Counseling the Aging (5 cr)

Counseling techniques to assist the elderly in preretirement or rehabilitative services. Students may observe counseling activities, provide direct counseling, plan or implement a counseling service, or evaluate an existing service, depending on their level of skill. (SFCC)

#### HSGER 250 – Death, Loss and Grief (5 cr)

Designed to better understand death in its relationship to life through the exploration of what others have written about death and by examining one's own feelings about death and dying. We discuss and explore the death taboo; loss, grief, mourning, pain and the impact of the dying process; the helping professions; and the family and the dying person. (SFCC)

#### HSGER 281 - Practicum I (5 cr)

This course is an overview of the practicum experience. Classroom experience focuses on the concepts of individualized learning goals; agency; instructional supervision; mutual practicum responsibilities; and privileges of student, agency and college. Students spend observational time in three different agencies. Sharing these experiences with the total class provides an overview of the network of elderly services and later field practicum potentials. Prerequisite: One year of gerontology courses prior to practicum. (SFCC)

#### HSGER 282 - Practicum II (5 cr)

Students spend 132 hours working in an assigned agency in this course. Student's contract with agency specify duties and tasks that provide an opportunity to complete student's individualized learning goals. The agency assigns one member of its professional staff to supervise the student. Agency supervisor provides agency-specific instruction for the student and monitors student performance. Assigned college faculty regularly consults with agency supervisor and student regarding learning opportunities, student's progress, and application of classroom material to practicum experience. Prerequisite: HSGER 281. (SFCC)

#### HSGER 283 - Practicum III (5 cr)

This course is a continuation of HSGER 282. Students spend 132 hours working in an assigned agency. Student's contract with agency specify specific duties and tasks that provide an opportunity to complete student's individualized learning goals. Agency assigns one member of its professional staff to supervise the student. Agency supervisor provides agency-specific instruction for the student and monitor student performance. Assigned college faculty regularly consults with agency supervisor and student regarding learning opportunities, student's progress, and application of classroom material to practicum experience. Prerequisite: HSGER 282. (SFCC)

#### **GOVERNMENT, STUDENT**

#### GOVT 161 - VICA Seminar (1 cr)

Conference course for students in the VICA program or similar groups; leadership and organization structure in student activities; applying for and holding a job, employee-employer relations; personal achievement; and the challenge of leadership. (SCC)

#### GOVT 191 - Student Senate (1 cr)

The responsibilities of the decision-making process of student government with emphasis on human relations, group interaction, developing the human potential of the individual, and improving communication skills and decision-making abilities. Open to all students interested in the student government process. (SCC, SFCC)

#### GOVT 192 - Student Senate (1 cr)

The responsibilities of the decision-making process of student government with emphasis on human relations, group interaction, developing the human potential of the individual, and improving communication skills and decision-making abilities. Open to all students interested in the student government process. (SCC, SFCC)

#### GOVT 193 - Student Senate (1 cr)

The responsibilities of the decision-making process of student government with emphasis on human relations, group interaction, developing the human potential of the individual, and improving communication skills and decision-making abilities. Open to all students interested in the student government process. (SCC, SFCC)

#### GOVT 195 – Activities Board (1 cr)

Responsibilities of program management through representative student government; emphasis on program development for the college, group interaction, communication skills and decision-making abilities. For members of student clubs and organizations and students interested in program development and scheduling management. (SCC, SFCC)

#### GOVT 196 - Activities Board (1 cr)

Responsibilities of program management through representative student government; emphasis on program development for the college, group interaction, communication skills and decision-making abilities. For members of student clubs and organizations and students interested in program development and scheduling management. (SCC, SFCC)

#### GOVT 197 - Activities Board (1 cr)

Responsibilities of program management through representative student government; emphasis on program development for the college, group interaction, communication skills and decision-making abilities. For members of student clubs and organizations and students interested in program development and scheduling management. (SCC, SFCC)

#### **GRAPHIC DESIGN**

#### GRDSN 101 - Design Process I (3 cr)

This is a basic introduction course presenting the fundamentals of design, visual communication and conceptualization. The primary focus is on typography, color and composition. Activities focus on research and problem solving with an emphasis on idea generation and refinement using thumbnail and rough layouts. Students apply fundamental design and communication skills to projects in GRDSN 103. Prerequisite: Assessment reading score on the Compass of 80 or above or an ASSET reading score of 40 or above and concurrent enrollment in GRDSN 102, 103, 105 or permission of instructor. (SFCC)

#### GRDSN 102 – Design Technology I (3 cr)

This course is a basic introduction to the technology platform used in the design profession. Emphasis is on the operating system(s), computer operations, file types, format and management. Students learn fundamental software skills necessary to complete projects in GRDSN 103. Content includes operation of page layout, drawing and scanning software applications. Prerequisite: A COMPASS reading assessment score of 80 or above or an ASSET reading score of 40 or above or permission of instructor and concurrent enrollment in GRDSN 101, 103, 105. (SFCC)

#### GRDSN 103 - Design Projects I (1 cr)

Students in this course design and produce basic-level design projects. Projects are assigned, assessed at midpoint and critique when finished. The design process, technology and lab time for these projects are delivered in GRDSN 101, 102. Prerequisite: A COMPASS reading assessment score of 80 or above or an ASSET reading score of 40 or above and concurrent enrollment in GRDSN 101, 102, 105 or permission of instructor. (SFCC)

#### GRDSN 105 – Drawing for Graphic Designers (2 cr)

This course offers students an introduction to drawing as a graphic designer. Students learn to draw basic forms for thumbnails and roughs that can be applied to other graphic design courses. Techniques and tools for drawing shape, value, plane and volume are explored through gesture, contour and other drawing styles. Composition and drawing type are an integral part of the course. (SFCC)

#### GRDSN 109 - History of Design (4 cr)

This is a competency-based course that focuses on major design movements as they relate to visual communication. Beginning with the invention of writing and continuing to the present day key ideas, social/political/cultural developments and technologies are examined. Through observations and comparisons the course illustrates the relationships between various design disciplines. This course requires research, writing and presentation of exploring visual communications role in society and popular culture. Prerequisite: A Compass reading assessment score of 80 or above or an ASSET reading score of 40 or above. (SFCC)

#### GRDSN 111 – Design Process II (3 cr)

This course expands on the fundamentals of design, visual communication and conceptualization introduced in GRDSN 101. Students demonstrate skills at a higher level of performance. In addition to typography, color and composition, students are engaged in problem-solving and critical thinking activities in order to solve fundamental design problems. Students apply learned skills to the completion of more complex projects in GRDSN 113. Prerequisite: GRDSN 101, 102, 103 and concurrent enrollment in GRDSN 112, 113, 115 or permission of instructor. (SFCC)

#### GRDSN 112 – Design Technology II (3 cr)

This intermediate-level course focuses on the technology platform used in the design profession. Emphasis is on computer graphics software applications, type formatting and appropriate file construction. Students learn fundamental and intermediate software skills necessary to complete projects in GRDSN 113. In addition to page layout, drawing and software applications, students focus on fundamental photo manipulation and three-dimensional design software. Prerequisite: GRDSN 101, 102, 103 and concurrent enrollment in GRDSN 111, 113, 115 or permission of instructor. (SFCC)

#### GRDSN 113 – Design Projects II (1 cr)

In this course, students design and produce basic-level design projects with more complexity than in previous projects. Projects are assigned, assessed at midpoint and critiqued when finished. The design process, technology and lab time for these projects are delivered in GRDSN 111, 112. Prerequisite: GRDSN 101, 102, 103 and concurrent enrollment in GRDSN 111, 112, 115 or permission of instructor. (SFCC)

#### GRDSN 115 – Drawing for Communication (2 cr)

This course builds on the skills obtained in GRDSN 105. Students expand their knowledge on techniques for illustration, draw in perspective, and learn about the picture plane, theme building and visual analogy. Color and its effect on composition and the target market are explored. Professional hand skills for presentation are included. Prerequisite: GRDSN 105. (SFCC) COURSE DESCRIPTIONS

#### GRDSN 121 – Design Process III (3 cr)

In this course, the design process is applied to the print, web and multimedia industries. Students engage in intermediate-level design, communication, problem-solving and conceptualization activities. In addition to exploring strategies for communicating more complex information, students are engaged in creating concepts which communicate ideas with clarity, depth and uniqueness. This course addresses skills necessary to complete the projects in GRDSN 123. Prerequisite: GRDSN 101 or permission of instructor and concurrent enrollment in GRDSN 122, 123 or permission of instructor. (SFCC)

#### GRDSN 122 – Design Technology III (3 cr)

This course is a survey of design technology as it applies to the production of design work in print, web and multimedia. Emphasis is on file construction, file formats and software used in 2-D, 3-D and animated graphics. Students are introduced to the Postscript imaging process and HTML as well as web and multimedia authoring software. Students learn software skills necessary to complete projects in GRDSN 123. Prerequisite: GRDSN 102 or permission of instructor and concurrent enrollment in GRDSN 121, 123 or permission of instructor. (SFCC)

#### GRDSN 123 - Design Projects III (1 cr)

Students design and produce basic-level design projects with more complexity than GRDSN 113. Projects are assigned, assessed at midpoint and critiqued when finished. The design process, technology and lab time for these projects are delivered in GRDSN 121, 122. Prerequisite: GRDSN 103 or permission of instructor and concurrent enrollment in GRDSN 121, 122 or permission of instructor. (SFCC)

#### GRDSN 125 - Computer Drawing (2 cr)

This course builds on the skills obtained in GRDSN 105 and GRDSN 115. Students learn to execute drawings using vector and raster imaging often found as illustrations in print and web design. Software programs are used to show value, color and texture of subject matter. Use of an electronic pen tool is explored in place of the mouse to mimic traditional tools that show line quality and shading. In addition, students use a digital camera to produce photographs for compositions and learn how to show perspective through the software programs available. Prerequisite: GRDSN 105 and GRDSN 115 or permission of instructor. (SFCC)

#### GRDSN 126 - Web Production (2 cr)

This course is designed to explore the visual aspects of designing and implementing documents for the World Wide Web. It focuses on evaluating the aesthetics and readability of existing Web pages in order to formulate effective and appropriate approaches to design for new pages. Students create, scan and manipulate graphic images, as well as integrate final graphics files into effective page designs which are appropriate for web use. Prerequisite: GRDSN 158 or permission of instructor. (SFCC)

#### GRDSN 131 – Publication Design (1 cr)

This is an introductory course in publication design. In this course the basic principles of layout, typography, color and images are discussed. Industry terminology, job titles, and problem solving methods are introduced. This course contains page layout projects developed both on paper and through the use of computer software. Prerequisite: Assessment reading score of 40 or above, or instructor permission and concurrent enrollment in GRDSN 135 for 1 credit. (SFCC)

#### **GRDSN 132 – Publication Production (2 cr)**

This course is an introductory course to the technology used to produce printed publications with computer software. This course focuses on commercial printing workflow; layout, prepress file preparation, printing processes, and printing papers. The basic operation of computer applications, and management of digital images is emphasized. Prerequisite: Assessment reading score of 40 or above, or instructor permission and concurrent enrollment in GRDSN 135 for 2 credits. (SFCC)

#### GRDSN 133 - Graphic Reproduction (2 cr)

This is an intermediate level course in image manipulation and preparation for press reproduction. Focus is on adjusting, manipulating, compositing, and repairing images acquired by scanners and digital cameras. Adobe Photoshop is used to explore techniques for selection of image areas, masking, levels and curves controls, combination of layers and the use of painting tools. Emphasis is on correcting tones, colors for printed output and applying color management techniques to ensure repeatable color control. Prerequisite: GRDSN 132 and assessment reading score of 40 or above, or instructor permission. (SFCC)

#### GRDSN 135 – Print Production Laboratory I (1-5 cr)

This introductory course is designed to support the computer production of projects assigned in GRDSN 131 or 132. This is a learner-centered, open lab environment in which developing and demonstrating self-directed learning strategies are emphasized. This lab course is facilitated by graphic design faculty. May repeat for up to 5 credits. Prerequisite: Assessment reading score of 40 or above, or instructor permission. (SFCC)

#### GRDSN 137 - Print Production Laboratory III (1-5 cr)

This advanced course is designed to support the computer production of projects assigned in GRDSN 151 or 152. This is a learner-centered, open lab environment in which developing and demonstrating self-directed learning strategies are emphasized. This lab course is facilitated by graphic design faculty. May repeat for up to 5 credits. Prerequisite: Assessment reading score of 40 or above, or permission of instructor. (SFCC)

#### GRDSN 141 - Type and Layout (1 cr)

This is an intermediate level course in design and typography. This course contains reference materials, tutorial exercises and hands-on projects. Projects focus on visual organization, stylized information, and effective page layouts. Emphasis is on clearly communicating to an audience. Projects employ images, formatting styles, grid systems and design principles as methods of communicating with a clear organizational structure. Prerequisite: GRDSN 131 and assessment reading score of 40 or above, or instructor permission. (SFCC)

#### GRDSN 142 - Print Production (2 cr)

This an intermediate level course in computer graphics and printing technology. Projects involve using industry-standard computer applications to create and edit pixel and vector images, create page layouts, and prepare files for printing. Emphasized are color management, printing technology, file preparation for multiple color printing, Acrobat PDF workflow, raster image processing, cross-application data exchange and file troubleshooting. Prerequisite: GRDSN 122. (SFCC)

#### GRDSN 151 – Typography and Design (1 cr)

This is an advanced course in publication design. The course focuses on text-intensive publications (newsletters, newspapers, corporate brochures, financial reports). Projects focus on design and typography skills to communicate complex information clearly and effectively. Layouts are enhanced with expressive use of color, images and printing techniques. Projects develop composition skills using industry-standard computer applications. Prerequisite: GRDSN 141 and assessment reading score of 40 or above, or permission of instructor and concurrent enrollment in GRDSN 137 for 1 credit. (SFCC)

#### GRDSN 152 - Prepress Production (2 cr)

This is an advanced level competency-based course in computer graphics and printing technology. Emphasis is on computer applications, color management, file preparation, paper specification, pre-press workflow, page imposition, proofing, trapping, PDF workflow, RIP technology, file automation, font and image management, emerging technology, and graphic markets. Requires concurrent enrollment in 2 credits of GRDSN 137. Prerequisite: GRDSN 133 and 142 and assessment reading score of 40 or above, or permission of instructor and concurrent enrollment in GRDSN 137 for 2 credits. (SFCC)

#### GRDSN 155 — FreeHand I (2 cr)

This is a self-paced, competency-based, introductory course to FreeHand software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to trace, draw and manipulate Bezier curves, and create illustrations. Students manipulate graphics and typographic forms to create final drawing compositions. Students also control and manipulate visual attributes and work with several color models to create, mix, and apply colors and tints. (SFCC)

#### GRDSN 156 - Illustrator I (2 cr)

This is a self-paced, competency-based, introductory course to illustrator software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to trace, draw and manipulate Bezier curves, and create illustrations. Students manipulate graphics and typographic forms to create final drawing compositions. Students also control and manipulate visual attributes and work with several color models to create, mix, and apply colors and tints. (SFCC)

#### GRDSN 157 – QuarkXPress I (2 cr)

This is a self-paced, competency-based, introductory course to QuarkXPress software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to integrate text and graphics in a variety of page layouts. Students apply fundamental typesetting skills to format a variety of text elements, including display type, text, captions and subheads. Students also work with color and manipulate placed graphics. (SFCC)

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#### GRDSN 158 - PhotoShop I (2 cr)

This is a self-paced competency-based introductory course to PhotoShop software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to evaluate and control color characteristics of digitized photographic images. Students also combine and manipulate images to create unique photo composites, as well as work with several color models and a variety of file formats. (SFCC)

#### GRDSN 159 - Strata 3-D (2 cr)

This is a self-paced competency-based introductory course to Strata 3-D software for macintosh computers. Through reference materials, tutorial exercises and projects, students use tools and menu commands to create scenes with three-dimensional objects and text. Students create a variety of objects, backgrounds and environmental effects to render a scene. Textures, lighting and cameras also will be addressed. Rendered scenes will be suitable for use on the internet, multimedia presentations and in page layout design. (SFCC)

#### GRDSN 160 - Director (2 cr)

This is a self-paced, competency-based, introductory course to Director software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create a movie (multimedia piece). Students import files created in other software programs, create text, and add sound and special effects. In addition, the students make a file interactive. The animated pieces will be suitable for use in multimedia design and CD ROM. (SFCC)

#### GRDSN 161 - Powerpoint (2 cr)

This course offers self-paced, competency-based, instruction in PowerPoint, a business presentation program for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create a digital business presentation. Students import files created in other software programs, create text, and format a presentation appropriate for individuals or groups. (SFCC)

#### GRDSN 162 - MacIntosh OS X (2 cr)

This is a self-paced, competency-based computer course designed to provide students with knowledge and hands-on experience with Macintosh Operating System Ten. Students receive information on functions such as the desktop, using Internet browsers, e-mail and printing. (SFCC)

#### GRDSN 163 - InDesign I (2 cr)

This self-paced competency based hands-on computer course provides students with knowledge and experience with the InDesign page layout program. The course includes working with documents, text, styles, tables, graphic elements, and color. (SFCC)

#### GRDSN 164 - Illustrator II (2 cr)

This is a self-paced, competency-based, advanced course for Adobe Illustrator software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands. They use advanced text techniques, selection techniques and transformation techniques to create vector drawings. They also learn to prepare graphics for the Web. (SFCC)

#### GRDSN 165 – QuarkXpress II (2 cr)

This is a self-paced, competency-based, advanced course in QuarkXPress software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tool and menu commands to structure layouts and work with text and graphics. Work with advanced text formatting and the application of style sheets will speed work. Managing workflow and output are covered. Also covered is working with lengthy documents. (SFCC)

#### GRDSN 166 - PhotoShop II (2 cr)

This course offers self-paced, competency-based, advanced instruction in PhotoShop software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to select color mode, correct color, apply masks and channels, create complex layers, retouch images, create patterns and textures, and add special effects. (SFCC)

#### GRDSN 167 - Fireworks (2 cr)

This self-paced competency based hands-on computer course provides students with knowledge and experience with the Fireworks Web design program. Students work with text, bitmaps, image retouching, layers, animated GIFs, navigation bars and pop-up menus. (SFCC)

#### GRDSN 168 – InDesign II (2 cr)

This self-paced competency based hands-on computer course provides students with knowledge and experience with the InDesign page layout program. The course includes working with long documents, multiple documents, advanced typesetting, managing output, PDF, and HTML. (SFCC)

#### GRDSN 169 – MS Word (2 cr)

This is a self-paced, competency-based introduction to Microsoft Word, a word processing program, and is oriented toward Macintosh computer users. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create, format and edit text. Students work with tables, clip art, printing and merged letters. (SFCC)

#### GRDSN 170 - MS Excel (2 cr)

This is a self-paced, competency-based introduction to Microsoft Excel, a spreadsheet program, and is oriented toward Macintosh computer users. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create and format spreadsheets for business and personal use. Students enter text, perform calculations, use functions, work with multipage documents and print results. (SFCC)

#### GRDSN 171 – Flash (2 cr)

This course offers a self-paced, competency-based introduction to flash software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to produce high impact, vector-based web sites. Students use Flash to create animations and interfaces, adding sound, motions and interactivity. (SFCC)

#### GRDSN 172 – Dreamweaver (2 cr)

This course offers a self-paced, competency-based introduction to Dreamweaver software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create exciting web sites using HTML. Students also use design tools, and import and edit images and documents. (SFCC)

#### GRDSN 173 - Flash II (2 cr)

This is a self-paced competency-based course in Flash software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create web animations that include sound and video. Students learn to apply behaviors to their animations. They also learn to use Flash with other applications such as Freehand, Photoshop and Fireworks. (SFCC)

#### GRDSN 174 – Dreamweaver II (2 cr)

This is a self-paced competency-based course in Dreamweaver software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create cascading style sheets, JavaScript behaviors and animations. Students learn to manage a live web site. (SFCC)

#### GRDSN 175 - After Effects Flash II (2 cr)

This is a self-paced competency-based course in After Effects Flash software for MacIntosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create, manipulate web animations that include sound and optimize motion graphics for film, video and the web. Students produce and apply behaviors to their animations, special effects and 3D layers. They use Flash with applications such as Freehand, Photoshop and Fireworks. (SFCC)

#### GRDSN 200 – Graphic Design Workshop (1-5 cr)

A course offered when unique opportunities or needs arise to instruct in areas not covered by existing courses and/or to quickly respond to changing conditions in the graphic design industry. (SFCC)

#### GRDSN 201 - Design Process IV (3 cr)

In this course, students compare the design process as it applies to a wide range of computer-generated imagery. Students engage in intermediatelevel design, communication, problem solving and conceptualizing activities. GRDSN 101 and 111 address the skills necessary to complete the projects assigned in GRDSN 203. Prerequisite: GRDSN 121 or permission of instructor and concurrent enrollment in GRDSN 203, 204 or permission of instructor. (SFCC)

#### GRDSN 202 – Design Technology IV (3 cr)

Students explore the production aspects of realistic graphic design projects and the technical issues that develop within their own designs. In conjunction with GRDSN 203, students develop production techniques and solutions to various media. Prerequisite: GRDSN 122 or permission of instructor and concurrent enrollment in GRDSN 201, 203, 204 or permission of instructor. (SFCC)

#### GRDSN 203 - Design Projects IV (1 cr)

This course consists of intermediate-level design, industry-driven projects. Skills necessary to complete these projects are directly linked to GRDSN 201 and 202. Focus is on design principles which relate to various digital media applications. Prerequisite: GRDSN 123 or permission of instructor and concurrent enrollment in GRDSN 201, 204 or permission of instructor. (SFCC)

#### GRDSN 204 — Design Lab IV (2 cr)

Students perform the computer production of projects assigned in GRDSN 203. Focus is on demonstrating efficient and effective use of technology in the design production process. Students are assessed and graded on demonstrating self-directed learning, demonstrating effective time management and positive work ethic. This lab course is facilitated by graphic design faculty. Prerequisite: Permission of instructor and concurrent enrollment in GRDSN 201, 202, 203. (SFCC)

#### GRDSN 211 - Design Process V (3 cr)

Working with real-world design problems, students in this course apply their expertise in developing design solution for various media. Emphasis is on organizing information, typography and imagery to create clear, creative design solutions. Through problem-solving activities, students develop an increased awareness of graphic design principles and skills. Prerequisite: GRDSN 201, 202, 203, 204 or GRDSN 126, 238 or permission of instructor and concurrent enrollment in GRDSN 212, 213, 214 or permission of instructor. (SFCC)

#### GRDSN 212 – Design Technology V (3 cr)

A variety of technical and material processes driven by projects developed in GRDSN 213 are explored. This course strengthens the students' abilities to problem solve and develop technical solutions to various media production applications. Students use a variety of computer software applications which are determined by appropriate media delivery systems. Prerequisite: GRDSN 201, 202, 203, 204 or GRDSN 126, 238 or permission of instructor and concurrent enrollment in GRDSN 211, 213, 214 or permission of instructor. (SFCC)

#### GRDSN 213 - Design Projects V (1 cr)

From concept to final presentation, students in this course apply advancedlevel design principles to real-world projects. Linked to GRDSN 211 and GRDSN 212, assignments require strong visual concepts. This course is designed to increase awareness of advanced graphic design projects. Prerequisite: GRDSN 201, 202, 203, 204 or GRDSN 126, 238 and concurrent enrollment in GRDSN 211, 212, 214 or permission of instructor. (SFCC)

#### GRDSN 214 - Design Lab V (2 cr)

Students perform the computer production of projects assigned in GRDSN 213. Scheduling and coordinating multiple tasks, as well as meeting deadlines, is emphasized. Students are assessed and graded on demonstrating self-directed learning, demonstrating effective time management and positive work ethic. This lab course is facilitated by graphic design faculty. Prerequisite: GRDSN 201, 202, 203, 204 or permission of the instructor and concurrent enrollment in GRDSN 211, 212, 213. (SFCC)

#### GRDSN 215 - Web Process V (3 cr)

Working with real-world design problems, students apply their expertise in developing design solutions for the web. Emphasis is on organizing information, typography and imagery to create clear, creative design solutions. Through problem-solving activities, students develop an increased awareness of web design principles and skills. Prerequisite: GRDSN 121, 122, 123 and concurrent enrollment in GRDSN 216, 217, 218. (SFCC)

#### GRDSN 216 - Web Technology V (3 cr)

A variety of technical and material processes driven by projects developed in GRDSN 217 are explored. This course strengthens the students' abilities to problem solve and develop technical solutions to various web production applications. Students use a variety of computer software applications which are determined by appropriate web delivery systems. Prerequisite: GRDSN 121, 122, 123 and concurrent enrollment in GRDSN 215, 217, 218. (SFCC)

#### GRDSN 217 – Web Projects V (1 cr)

From concept to final presentation, students in this course apply advancedlevel design principles to real-world projects. Linked to GRDSN 215 and 218, assignments require strong visual concepts. This course is designed to increase awareness of advanced web design projects. Prerequisite: GRDSN 121, 122, 123 and concurrent enrollment in GRDSN 215, 216, 218. (SFCC)

#### GRDSN 218 - Web Lab V (2 cr)

Students perform the computer production of projects assigned in GRDSN 217. Scheduling and coordinating multiple tasks, as well as meeting deadlines, are emphasized. Students are assessed and graded on demonstrating self-directed learning, effective time management and a positive work ethic. Graphic design faculty facilitate this lab course. Prerequisite: GRDSN 121, 122, 123 and concurrent enrollment in GRDSN 215, 216, 217. (SFCC)

#### GRDSN 221 - Design Process VI (3 cr)

This course prepares students for entrance into the work force. Students address employment opportunities, self-assess projects and identify weak points in their portfolios in order to be more competitive when entering the job market. In addition to assembling a portfolio, students gain practice in job interviewing, resume preparation and professional job application procedures. Prerequisite: GRDSN 211 or permission of instructor and concurrent enrollment in GRDSN 223, 224 or permission of instructor. (SFCC)

#### GRDSN 223 – Design Projects VI (2 cr)

Students design and produce projects for their portfolios in this course. In addition, earlier student work is assessed and revised to bring it up to portfolio standards. Projects are assigned, assessed at mid point and critiqued when finished. The design process and lab time for these projects are delivered in GRDSN 221. Prerequisite: GRDSN 213 or permission of instructor and concurrent enrollment in GRDSN 221, 224 or permission of instructor. (SFCC)

#### GRDSN 224 – Design Lab VI (2 cr)

Students produce final design pieces to assemble into a portfolio. The focus of the lab activities is accelerating the work pace to meet the kinds of deadlines experienced in industry. Students are assessed and graded on demonstrating self-directed learning, demonstrating effective time management and positive work ethic. Prerequisite: GRDSN 214 or permission of instructor and concurrent enrollment in GRDSN 221, 223 or permission of instructor. (SFCC)

#### GRDSN 225 - Web Process VI (3 cr)

This course prepares students for entrance into the work force. Students address employment opportunities, self-assess projects and identify weak points in their portfolios in order to be competitive when entering the job market. In addition to assembling a portfolio, students gain practice in job interviewing, resume preparation and professional job application procedures. Prerequisite: GRDSN 215, 216, 217, 218 and concurrent enrollment in GRDSN 226, 227. (SFCC)

#### GRDSN 226 - Web Projects VI (2 cr)

Students design and produce projects for their portfolios in this course. In addition, earlier student work is assessed and revised to meet portfolio standards. Projects are assigned, assessed at midpoint and critiqued when finished. The design process and lab time for these projects are delivered in GRDSN 225 and 227. Prerequisite: GRDSN 215, 216, 217, 218 and concurrent enrollment in GRDSN 225, 227. (SFCC)

#### GRDSN 227 – Web Lab VI (2 cr)

Students produce final design pieces to assemble into a portfolio. The focus of the lab activities is accelerating the work pace to meet the kinds of deadlines experienced in industry. Students are assessed and graded on demonstrating self-directed learning, effective time management and a positive work ethic. Prerequisite: GRDSN 215, 216, 217, 218 and concurrent enrollment in GRDSN 225, 226. (SFCC)

#### GRDSN 231 - Advertising Design (4 cr)

In this course students study the operation of the advertising agency and its art department. Students become familiar with the roles of the creative director, art director, designer, account executive, copy writer, media buyer and production artist in an agency environment. Focus is on the concept, design and production of pieces for advertising media including newspaper, magazine, outdoor, television and the process of working within the structure of the creative advertising agency team. Conceptual work relies heavily on market research to help determine the client's need, market position, comparison to competitors, media and advertising budget. Students create concepts, write headlines and copy, produce ad layouts and comprehensives, and television storyboards. Students also gain experience in art directing other creative team members such as designers, photographers and illustrators, producing their own designs, photographs and illustrations. Prerequisite: GRDSN 201, 202, 203, 204. (SFCC)

#### GRDSN 232 – Perspective Drawing for Designers (3 cr)

This course familiarizes students with the principles of perspective and their practical applications. Students learn one-, two-, and three-point perspective by using the principles of geometry to develop spatial logic. Students apply learned procedure, technique and perspective theory to create illustrations that develop painting skills. Students apply perspective to produce precise product illustrations with the technical tools used by professionals. Each student creates a perspective notebook for future reference. Prerequisite: GRDSN 121, 122, 123. (SFCC)

#### GRDSN 235 – Multimedia Technology I (3 cr)

This course is a basic introduction to interactive media. Students learn basic design and technical skills necessary to create and combine graphics, text, sound, Quicktime movies and scripting in interactive pieces for use on a CD or the Internet. Emphasis is on organization and flow of information. Prerequisite: GRDSN 122 or permission of instructor. (SFCC)

#### GRDSN 236 – Multimedia Technology II (3 cr)

This is an intermediate-level course on interactive media. Students build on GRDSN 235 to learn more complex design and technical skills to create and combine graphics, text, sound, Quicktime movies and scripting in interactive pieces for use on a CD or the Internet. Emphasis is on organization and flow of information. Prerequisite: GRDSN 235 or permission of instructor. (SFCC)

#### GRDSN 237 – Multimedia Technology III (3 cr)

This is an advanced-level course on interactive media. Students learn complex design and technical skills to create and combine graphics, text, sound, Quicktime movies and scripting in interactive pieces for use on a CD or the Internet. Emphasis is on scripting interactivity and animation. Prerequisite: GRDSN 235, 236 or permission of instructor and concurrent enrollment in GRDSN 122. (SFCC)

#### GRDSN 238 - 3-D Modeling and Animation I (3 cr)

This course is a basic introduction to the field of three-dimensional modeling and animation. Students learn to create simple three-dimensional objects on the computer and animate them as Quicktime movies. Emphasis is on the analysis of perspective, three-dimensional space, lighting, cameras and texture mapping. (SFCC)

#### GRDSN 239 - 3-D Modeling and Animation II (3 cr)

This is an intermediate-level course in three-dimensional modeling and animation. Students learn to create more complex three-dimensional objects on the computer and animate them as Quicktime or VRML movies. Emphasis is on intricate lighting, camera and texture creation techniques. Prerequisite: GRDSN 238 or permission of instructor. (SFCC)

#### GRDSN 240 - 3-D Modeling and Animation III (3 cr)

This is an advanced-level course in three-dimensional modeling and animation. Students learn to create complex three-dimensional objects on the computer and animate them as Quicktime or VRML movies. Prerequisite: GRDSN 239 or permission of instructor. (SFCC)

#### GRDSN 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

#### GRDSN 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SFCC)

#### GRDSN 277 – Illustration Workshop (4 cr)

One third of this course is spent investigating the possibilities of full-color graphic illustration and creating an illustration in that style. The remaining two-thirds of the class emphasizes encouraging students to develop an individual style and choosing media appropriate to the solution of a given problem. Students use visual and conceptual skills in their own work problem-solving process. Professionalism and the study of contemporary illustrators and their work are very important. The work produced in this class make strong portfolio pieces. Prerequisite: GRDSN 201, 202, 203 or permission of instructor. (SFCC)

#### **GUIDANCE**

#### GUID 100 - College Orientation (1-2 cr)

This course is designed to assist the incoming student make the transition to college life. It provides a number of tools necessary to succeed in college - resources, processes and procedures, career exploration and information, assertiveness training and college survival skills - as well as explain the many services and activities open to all students. (SCC, SFCC)

#### GUID 101 - Career Planning (2-5 cr)

This course incorporates aptitude, interest, personality and motivational surveys with classroom activities to promote self-awareness. Analysis of the organization of the working world and use of research materials is combined with decision-making skills to aid the student in the selection of a career. Course content varies depending on the number of credits chosen. (SCC, SFCC)

#### HEALTH

#### HLTH 101 - Health and Wellness (3 cr)

Course encompasses a total wellness concept of one's physical, mental and emotional well-being. Students examine major health issues of contemporary society. Students also learn to make responsible lifestyle decisions that directly affect their quality of life and attainment of well-being. (SCC, SFCC)

#### HLTH 104 - Stress Management (3 cr)

Students learn techniques and strategies to manage and evaluate stress. Consequences of stress to physical and mental health are emphasized. Techniques of bio-feedback and relaxation responses are covered, as well as wellness lifestyle development. General applications for physiological arousal and behavior-change interventions are covered. (SCC, SFCC)

#### HLTH 174 - First Aid (3 cr)

Principles, theory and skills of standard first aid and safety which prepare students to make appropriate decisions regarding first aid care and to act on those decisions. American Red Cross cards are available upon successful completion of this course. (SCC, SFCC)

#### **HEALTH EDUCATION**

#### HED 101 – Nutrition (3 cr)

Students learn basic nutrition including life cycle needs, nutrient sources and functions, food preferences and customs. (SCC)

#### HED 102 – Survey of Health Careers (2 cr)

Students gather information regarding selected health careers by interacting with health professionals active in the field, visiting sites to observe the application of their career choice, making informed decisions regarding their personal choice of health career based on aptitude and interest, and expressing values and feelings leading to their career choice. (SCC)

#### HED 103 - Steps to Success in Health Careers (4 cr)

This course provides students with a key to understanding the necessary components for success in a health career introducing various options available with emphasis on necessary abilities to assure success in the education aspects of the profession. Strategies to build professional attitudes, self esteem, ethical behavior and communications skills are presented. (SCC)

#### HED 108 – Human Anatomy (5 cr)

Students study the structure of the human body systems: Integumentary, special senses, skeletal, muscular, respiratory, hemopoietic, cardiovascular, lymphatic, digestive, urinary, reproductive, endocrine and nervous systems. (SCC)

#### HED 109 – Human Physiology and Disease (5 cr)

Students study functions, related conditions and diseases of body systems. Prerequisite: HED 108 or permission of instructor. (SCC)

#### HED 110 – Health Care Delivery Systems (3 cr)

This course provides a broad concept of how health care is organized, financed and delivered in the U.S. Students study interrelationships of facilities, agencies, health organizations and hospitals. The role of the government is the regulation of health care is emphasized. (SCC)

#### HED 121 – Cultural Diversity in Health Care (1 cr)

This course provides a foundation for applications of cultural concepts in the health care setting. Considerations are given to the impact of biopsychosocial, ethical, legal, spiritual and cultural influences on the need to promote, maintain and restore health of the client/family unit. Prerequisite: Permission of instructor or concurrent enrollment in a health care program. (SCC)

#### HED 125 – Medical Terminology (5 cr)

This course introduces the roots, prefixes and suffixes comprising the structure of medical terms associated with all body systems with emphasis on medical eponyms, abbreviations and the correct spelling of all terms. (SCC)

#### HED 126 – Introduction to Study of Disease (3 cr)

This course introduces the concepts associated to the cause of disease, inflammation and repair, burns, infection, genetics, organs of special sense and neoplasia. Diagnostic tests and procedures related to the identification of the disease process are included. Prerequisite: BIOL 241, 242 and HED 125 or HED 108. (SCC)

#### HED 130 – Positive Image Building (2 cr)

Students discuss concepts and participate in exercises relating to self-esteem building, effective goal setting, constructive interpersonal communication. They apply these concepts toward maximizing personal potential and self-health maintenance. (SCC)

#### HED 132 - Ethics and Professionalism in Health (2 cr)

Students develop intrapersonal and interpersonal communication skills for use in their professional health care roles. The ability to use judgments in ethical and moral decisions in health, stress management and interviewing skills as they relate to professional practice for selling oneself, and maintaining employer-employee relationships are emphasized. (SCC)

#### **HEALTH INFORMATION TECHNOLOGY**

#### HIT 101 – Health Record Systems (5 cr)

Students are introduced to health records and health record personnel. The study of development, content and format of acute care record systems is emphasized. Students conduct quantitative and qualitative analysis of records according to standards. Acute care hospital-based systems and the role of admission services in initiation of records are addressed. Application of computer systems in a database, analysis of record content and record management are presented. (SCC)

#### HIT 104 – Introduction to Health Information (3 cr)

Students are introduced to the health information field, health professions and the medical field. The value of health information and terminology, facility organization, regulatory agencies, and the roles and functions of health information personnel are emphasized. (SCC) COURSE DESCRIPTIONS

#### HIT 105 – Legal Concepts in Health (3 cr)

This interdisciplinary health records course emphasizes the health record as a legal document. Confidential communication policies and procedures, release of information, consent and state and federal law pertaining to health are presented. Forms of liability, preparation of records for court responses and to subpoenas are emphasized. Students research laws, current and proposed health legislation, and contemporary legal issues. (SCC)

#### HIT 125 – Medical Terminology (5 cr)

Students learn the roots, prefixes and suffixes comprising the structure of medical terms associated with all body systems. Medical eponyms, abbreviations and correct spelling of all terms are emphasized. (SCC)

#### HIT 129 – Pathophysiology (5 cr)

Students study various disease causing processes exerting an effect on normal physiological function of musculoskeletal, respiratory, circulatory, digestive, urinary and nervous systems; neoplasia and immunology. Diagnostic tests and procedures utilized for these pathophysiological problems are presented, and appropriate treatment is discussed. Prerequisite: HIT 125 or permission of instructor. (SCC)

#### HIT 135 – Comparative Record Systems (4 cr)

Record systems in all types of nonacute health care settings are presented including ambulatory care, home health, hospice, mental health and long-term care. Regulatory issues, documentation requirements and information management issues unique to each setting are discussed. Prerequisite: HIT 101. (SCC)

#### HIT 145 - Pharmacology (3 cr)

Drug classifications, apothecary and metric systems of measurement, medications by brand name and generic terms, and use of PDR and hospital formularies are addressed in this course. (SCC)

#### HIT 160 – Computer Theory in Health Information (3 cr)

Computer theories specific to the field of health information are introduced in this course. Confidential communication policies and procedures, release of information consent, and state and federal law pertaining to health are presented. Forms of liability, preparation of records for court and responses to subpoenas are emphasized. Students research laws, current and proposed health legislation, and contemporary legal issues. (SCC)

#### HIT 161 – Health Management Information Systems (3 cr)

This course is a continuation of the concepts introduced in HIT 160. Emphasis is on the use of tasks, steps and domains frequently used in the software programs currently used in the medical industry. Prerequisite: HIT 160 or permission of instructor. (SCC)

#### HIT 162 – Electronic Health Record: Meditech (3 cr)

This course is a continuation of the concepts introduced in HIT 160 and 161. Emphasis is on advanced special functions such as non-central databases and sorting and statistical functions using electronic health records software. Students will obtain a certificate of completion in the following meditech modules: Order Entry, Order Management, Patient Care Inquiry, Admitting, and Medical Records. Prerequisite: HIT 161 or permission of instructor. (SCC)

#### HIT 203 – Clinical Practice (1-3 cr)

This clinical practicum provides actual on-site practice in skills required in medical coding, chart analysis and basic medical record proficiency. Students apply skills practiced in the directed practice lab while integrating knowledge with application. Prerequisite: Second-year health information technology student and concurrent enrollment in HIT 212. (SCC)

#### HIT 208 – Health Information Management (5 cr)

Students learn management of health data, special registries and indexes, data quality, and the uses of aggregate data. They study abstracting systems, current regulations that govern prospective payment and health care financing. The role of regulatory agencies is included, and the dynamics of change in the health information environment is presented. Contemporary topics in health information management are discussed. Prerequisite: HIT 212 and concurrent enrollment in HIT 211. (SCC)

#### HIT 209 – Health Data Analysis and Display (5 cr)

Students learn the principles in collection, computation, presentation and analysis of health data by working with simulated applications of data collection principles by data abstracting using computerized health information systems. Presentation and analysis of data using computer applications are addressed. Prerequisite: Completion of all first-year requirements. (SCC)

#### HIT 211 – Quality Improvement (4 cr)

Students learn principles and procedures pertaining to utilization management, quality assurance and improvement, credentialing and risk management. Knowledge and skills necessary to apply the principles in assessing the quality of patient care are emphasized. Research and simulation are used to acquaint students with quality assurance principles and methods. Selected classification systems are addressed. Prerequisite: Completion of all first-year requirements and concurrent enrollment in HIT 208. (SCC)

#### HIT 212 – Acute Care Coding (5 cr)

Students study theory and application of the current edition of the ICD (International Classification of Disease) authorized for use in the US. Students code utilizing charts and participate in lab exercises. Assignment of diagnosis-related groups and computerized endcoding and grouping are presented using practical computer applications to perform these tasks. Prerequisite: Completion of all first-year requirements or permission of instructor. (SCC)

#### HIT 213 – Clinical Practice (6 cr)

This supervised, clinical practicum provides students experience in area hospitals, skilled nursing facilities and other health care facilities and agencies. Students work under supervision of facility personnel or the instructor and perform all learned skills in an actual clinical setting. Prerequisite: Clinical status: Final quarter and concurrent enrollment in HIT 240, 250. (SCC)

#### HIT 214 – Ambulatory Care Coding (5 cr)

Ambulatory coding systems currently in use are utilized in this course. Health Care Financing Administration rules and procedures are emphasized, incorporating Medicare changes and other third-party payers. Current reimbursement methodologies in ambulatory care are presented. Prerequisite: HIT 101, 129, 145, 212 or permission of instructor. (SCC)

#### HIT 216 - Reimbursement Strategies for HIM Professionals (5 cr)

This course introduces students to a variety of claims processes and procedures, and health care payers. Career roles and responsibilities and employment opportunities also are covered. (SCC)

#### HIT 218 – Advanced Medical Coding (5 cr)

Students practice using ICD-9-CM (International Classification of Diseases, 9th Edition, Clinical Modification) and CPT (Current Procedural Terminology) by coding inpatient and outpatient source documents and charts. Students learn the implications of DRGs (Diagnostic Related Groups) and APCs (Ambulatory Payment Classifications) and their relationship to coding assignment and finances. The content of this course explains the purpose of manual and computer indexes. Theory and practice in coding problem-solving, data quality control and use of the computer encoder are emphasized. Prerequisite: HIT 212, 214. (SCC)

#### HIT 240 – HIT Clinical Seminar (2 cr)

In this follow-up seminar of supervised clinical experience, students discuss and report on clinical topics, use of work skills and all aspects of working in the field. Prerequisite: Concurrent enrollment in HIT 213. (SCC)

#### HIT 250 - Management and Supervision in Health Organizations (3 cr)

Students learn supervisory management theories and techniques. Organizing, directing, motivating, controlling, staffing, evaluating and problemsolving functions are emphasized. The allied health practitioner's role at the midmanagement level is presented. Prerequisite: HIT program students or permission of instructor. (SCC)

#### HIT 251 — Leadership Applications in Health Information Management (2 cr)

Students develop critical thinking skills in leadership and supervision in health information management in this application-level course. Conflict management, communication skills, inservice education methods and the impact of EEO legislation are emphasized. Analyzing work flow and conducting performance appraisals are addressed. Prerequisite: HIT 208, 250 and concurrent enrollment in HIT 213, 240. (SCC)

#### **HEALTH RECORD CLERK**

#### HRC 101 - Health Record Systems (5 cr)

Students are introduced to health records and health record personnel. The study of development, content and format of acute care record systems is emphasized. Students conduct quantitative and qualitative analysis of records according to standards. Acute care hospital-based systems and the role of admission services in initiation of records are addressed. Application of computer systems in a database, analysis of record content and record management are presented. (SCC)

#### HRC 104 – Introduction to Health Information (3 cr)

Students are introduced to the health information field, health professions and the medical field. The value of health information and terminology, facility organization, regulatory agencies, and the roles and functions of health information personnel are emphasized. (SCC)

#### HRC 105 – Legal Concepts in Health (3 cr)

This interdisciplinary health records course emphasizes the health record as a legal document. Confidential communication policies and procedures, release of information, consent and state and federal law pertaining to health are presented. Forms of liability, preparation of records for court responses and to subpoenas are emphasized. Students research laws, current and proposed health legislation, and contemporary legal issues. (SCC)

## 201

#### HRC 108 – Human Anatomy (5 cr)

Students study the structure of the human body including integumentary, special senses, skeletal, muscular, respiratory, hemopoietic, cardiovascular, lymphatic, digestive, urinary, reproductive, endocrine and nervous systems. (SCC)

#### HRC 125 – Medical Terminology (5 cr)

Students learn the roots, prefixes and suffixes comprising the structure of medical terms associated with all body systems. Medical eponyms, abbreviations and correct spelling of all terms are emphasized. (SCC)

#### HRC 126 - Introduction to Study of Disease (3 cr)

Students study basic disease concepts relating to the cause of disease, inflammation and repair, burns, infections, genetics, organs of special sense, and neoplasia. Diagnostic tests and procedures related to the identification of the disease process are presented. Prerequisite: Completion of HRC 108 or 125. (SCC)

#### HRC 135 – Comparative Record Systems (4 cr)

Record systems in all types of nonacute health care settings are presented including ambulatory care, home health, hospice, mental health and longterm care. Regulatory issues, documentation requirements and information management issues unique to each setting are discussed. Prerequisite: HRC 101. (SCC)

#### HRC 145 – Pharmacology (3 cr)

Drug classifications, apothecary and metric systems of measurement, medications by brand name and generic terms, and use of PDR and hospital formularies are addressed in this course. (SCC)

#### HRC 150 - Health Record Clerk Directed Practice (3 cr)

This course includes a clinical seminar to prepare students for clinical practice in the work environment and directed clinical practice in a health care setting. Students learn job-readiness skills, professionalism, work ethic, leadership training, and safety and occupational health. Directed practice provides practical application of classroom coursework. Prerequisite: Successful completion of first- and second-quarter classes with a 2.0 grade or better. (SCC)

#### **HEALTH UNIT COORDINATOR**

#### HUC 101 – Health Record Systems (5 cr)

Students are introduced to health records and health record personnel. The study of development, content and format of acute care record systems is emphasized. Students conduct quantitative and qualitative analysis of records according to standards. Acute care hospital-based systems and the role of admission services in initiation of records are addressed. Application of computer systems in a database, analysis of record content and record management are presented. (SCC)

#### HUC 104 – Introduction to Health Information (3 cr)

Students are introduced to the health information field, health professions and the medical field. The value of health information and terminology, facility organization, regulatory agencies, and the roles and functions of health information personnel are emphasized. (SCC)

#### HUC 105 – Legal Concepts in Health (3 cr)

This interdisciplinary health records course emphasizes the health record as a legal document. Confidential communication policies and procedures, release of information, consent and state and federal law pertaining to health are presented. Forms of liability, preparation of records for court responses and to subpoenas are emphasized. Students research laws, current and proposed health legislation, and contemporary legal issues. (SCC)

#### HUC 108 – Human Anatomy (5 cr)

Students study basic disease concepts relating to the cause of disease, inflammation and repair, burns, infections, genetics, organs of special sense, and neoplasia. Diagnostic tests and procedures related to the identification of the disease process are presented. (SCC)

#### HUC 120 - Introduction to Health Unit Coordinator Procedures (2 cr)

Health unit coordinator students are introduced to the nursing unit. Professionalism in the working environment is emphasized. Supplies for patient care and computer language required to implement diagnostic testing are addressed. (SCC)

#### HUC 125 – Medical Terminology (5 cr)

Students learn the roots, prefixes and suffixes comprising the structure of medical terms associated with all body systems. Medical eponyms, abbreviations and correct spelling of all terms are emphasized. (SCC)

#### HUC 126 – Introduction to Study of Disease (3 cr)

Students study basic disease concepts relating to the cause of disease, inflammation and repair, burns, infections, genetics, organs of special sense, and neoplasia. Diagnostic tests and procedures related to the identification of the disease process are presented. Prerequisite: Completion of HED 108 or 125. (SCC)

#### HUC 127 – Health Unit Coordinator Procedures (5 cr)

This course is a supervised application of unit coordinator procedures emphasizing transcription of orders and pharmacology. Students learn nursing unit procedures and transcription of orders. They enter HUC 152 during the quarter and must complete this course with a 2.0 grade or better. Prerequisite: Completion of first two quarters. (SCC)

#### HUC 145 – Pharmacology (3 cr)

Drug classifications, apothecary and metric systems of measurement, medications by brand name and generic terms, and use of PDR and hospital formularies are addressed in this course. (SCC)

#### HUC 152 – Unit Coordinator Practicum (3 cr)

Students apply skills learned in HUC 127 in a supervised, acute-care clinical rotation. Each student is assigned to a nursing unit under the supervision of a health unit coordinator or nurse manager. Prerequisite: HUC 127. (SCC)

#### HUC 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

HUC 267 – Cooperative Education Work Experience (1-18 cr) For course description see Cooperative Education. (SCC)

#### **HEALTH/FITNESS TECHNICIAN**

#### FMT 106 — Anatomical and Physiological Kinesiology (5 cr)

A core course to the fitness management curriculum; a study of the structural and functional components of human movement. Special attention is given to the analysis of movement problems. (SFCC)

#### FMT 111 – Physiology of Exercise (5 cr)

This course explores the range and ability of the human body. Areas of study include brain-body connections; physiological responses of the lungs and heart to exercise; and effects of drugs, hormones and environment on human performance. The training effects of exercise, fatigue, as well as general fitness brought about by regular exercise. In addition, the acute and chronic adaptations to training at altitude will be explored. (SFCC)

#### FMT 112 – Exercise and Aging (3 cr)

The senior and older adult population is fast becoming the largest segment of the fitness industry. Fitness professionals need to be aware of the aspects of exercise prescription unique to the older client. This course analyzes the physiological characteristics of the older adult that apply to exercise program development. The course examines physical limitations such as balance, strength, flexibility, disease, osteoporosis and the effects of certain medications. There is a combination of lecture and lab hours designed to develop "hands-on" knowledge of exercise technique, as well as exercise theory. (SFCC)

#### FMT 115 – Leadership Dynamics (3 cr)

This course is designed to study concepts involved in developing leadership traits: When leaders are at their best, what followers expect, and how to enlist others and foster collaboration. In addition, this course studies communication and how it applies to leadership and job-related skills. (SFCC)

#### FMT 119 – Principles of Strength Training (5 cr)

This course explores the scientific principles involved with increasing human strength. The skeletal muscles and joints are studied. All forms of isotonic and isometric exercise are taught. Effects of nutrition, fatigue and exercise on the muscular system is analyzed. (SFCC)

#### FMT 204 — Health Appraisal and Exercise Prescription (5 cr)

This course incorporates current fitness industry standards with regards to appropriate assessment techniques, i.e., participant screening, health appraisal, health history, physical assessments, determination of risk factors and lifestyle patterns. Following the comprehensive health/fitness appraisal, techniques for exercise prescription and programming are developed. Components of exercise prescription are incorporated, which include goal setting, strength programming, cardiovascular programming, flexibility, nutrition guidance and behavior modification. Feedback and evaluation methods are developed. (SFCC)

#### FMT 209 — Exercise and the Cardiovascular System (3 cr)

This course is designed for physical education, health science and fitness management technician majors who have desire to gain basic knowledge of the cardiovascular system at rest, in response to exercise and major disease states. The evaluation of risk factors, fundamentals of electrocardiography, exercise testing techniques, clinical management of major disease states and rehabilitation are discussed. (SFCC)

#### FMT 219 – Injury Prevention and Rehabilitation (5 cr)

Course is designed to provide the basic knowledge and skills that aid in the prevention and rehabilitation of injuries common in athletic and recreational activities. (SFCC)

#### See program/course abbreviation key on page 143.

#### 202 FMT 225 – Personal Training (5 cr)

This course enables students to recommend and develop safe exercise routines based on the following processes: 1) health screening, 2) fitness assessments, 3) client goals, 4) client motivation, 5) re-evaluation and 6) education. Students become competent in fitness testing protocols, proper exercise technique, nutrition for weight loss and sports performance; as well as legal, ethical and professional standards currently followed in the fitness industry. Students are prepared to take The American Council or Exercise Personal Trainer Certification exam. (SFCC)

#### FMT 230 - Therapeutic Massage (3 cr)

Introduces the student to basic techniques of massage. Includes therapeutic applications for sport, stress and clinical practices. Effects of hydrotherapy are covered and the Washington State Massage Act--18.108 RCW is discussed. (SFCC)

#### **HEARING INSTRUMENT SPECIALIST**

#### HIS 101 – Basic Hearing Instrument Sciences (4 cr)

This course defines, describes and identifies the physical processes of sound and sound amplification. Students in this course discover and learn the development of contemporary hearing instruments from a historical perspective. Students also demonstrate knowledge of hearing instrument components and logically communicate the expected benefits and limitations of various instruments. (SFCC)

#### HIS 104 – Hearing Physiology and Anatomy (4 cr)

This course describes the function and identifies the structures of the human ear and hearing. Students demonstrate through class discussion and written assignments knowledge of ear physiology and anatomy. (SFCC)

#### HIS 106 - Healthcare and Business Ethics (4 cr)

In this class students relate and discuss the ethical issues surrounding the performance of their work as hearing instrument specialists. Students class consider and then offer ethical solutions to a variety of possible challenges in their industry. (SFCC)

#### HIS 123 - Basic Audiometrics (5 cr)

In this course students demonstrate the ability to perform standard air, bone and speech audiometry. The students also display competent performance of video-otoscopy and patient testing instruction. Student perform the normal record keeping chores of this testing. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 125 - Auditory Disorders (4 cr)

Students in this class describe and define the otologic conditions affecting hearing. Students also identify otologic red flags that require referral to medical physicians and other healthcare specialists. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 127 – Hearing Healthcare Management I (4 cr)

Students in this course describe, outline and practice the wide-range skills and competencies necessary in the management of a typical hearing health-care office's business operations. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 134 - Advanced Audiometrics (5 cr)

Students practice and demonstrate competency in the more advanced diagnostic tests used in the industry. Students in this class will perform tympanometry, otoacoustic emission testing, and complete audiometric evaluations. Students show competence in both handwritten and computer-based recording of test results. Prerequisite: HIS 104, 106, 123 and permission of instructor. (SFCC)

#### HIS 136 – Hearing Instrument Technologies (4 cr)

This course prepares the student to work with the current technologies used in the hearing instrument industry. Students identify patients and audiological conditions that would benefit from specific circuits, matrices and instrument options. In this course students discuss advanced issues surrounding analog and digital amplification technologies. Prerequisite: Permission of instructor. (SFCC)

#### HIS 138 - Ear Couplers and Assistive Technologies (5 cr)

This course defines, describes and identifies the functional uses of different types of earmolds, shells and assistive listening devices (ALDs). Students practice taking impressions and modifying earmolds and shells for which they've made impressions. Students demonstrate the correct use of several commonly used ALDs. Ordering and record keeping activities are also practiced. Prerequisite: HIS 104, 106 and permission of instructor. (SFCC)

#### HIS 201 – Hearing Healthcare Management II (4 cr)

Students describe, outline and practice the wide range skills and competencies necessary in the management of a typical hearing healthcare office's products and services. Prerequisite: Permission of instructor. (SFCC)

## HIS 205 — Introduction to Speech-Language Pathology and Audiology (5 cr)

Students explain and write an overview of deficits of speech, language and hearing, and the role of the speech-language pathologist and audiologist. Students also develop a referral protocol to these specialists for their patients. Prerequisite: HIS 104, 106 and permission of instructor. (SFCC)

#### HIS 206 - Hearing Instrument Specialist Laboratory I (4 cr)

In this course students practice connected activities involved in fitting and dispensing hearing instruments, including: Taking impressions, ordering earmolds/hearing instruments, performing quality control checks of incoming inventory, preprogramming analog and digital hearing instruments, performing real ear acoustic measurement and completing a variety of test box verifications. Ordering and record keeping activities are also practiced. Students develop good communication and problem-solving skills. Prerequisite: HIS 104, 106 and permission of instructor. (SFCC)

#### HIS 210 - Clinical Methods I (5 cr)

In this course students practice all skills associated with the provision of hearing healthcare services from the first patient contact to the final hearing instrument checkup. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 213 – Marketing/Sales (4 cr)

Students identify, describe and define those elements that an effective marketing campaign should include. Students develop a marketing plan for a typical hearing instrument office. Students also define, practice and demonstrate skills necessary to increase patient compliance with purchase recommendations. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 215 – Hearing Instrument Specialist Laboratory II (5 cr)

In this course students practice connected activities involved in fitting and dispensing hearing instruments including taking impressions, ordering earmolds/ hearing instruments, performing quality control checks of incoming inventory, pre-programming analog/digital hearing instruments, troubleshooting malfunctioning instruments, and adjusting instruments for better fit and performance. Ordering and record keeping activities also are practiced. Students develop good communication and problem-solving skills. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 222 – Clinical Methods II (6 cr)

In this course students practice all skills associated with the provision of hearing healthcare services from the first patient contact to the final hearing instrument checkup. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 250 – Perspectives on Disabilities (4 cr)

Students learn to approach their patient recommendations and treatments showing careful consideration of those historical, international, socioeconomic, ethical, personal and age-related perspectives that may influence treatment outcomes. Students modify their perspectives on disability, individual choices, societal values and social responsibilities to provide the best care to all patients. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

#### HIS 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

**HIS 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SFCC)

## HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

#### AIRC 113 – Math for HVAC Technicians (5 cr)

This course is a review of basic math fundamentals starting with whole numbers and proceeding to formula manipulation. Math material is presented in a practical format. (SCC)

#### AIRC 114 – Principles of Electricity (8 cr)

Students learn the theory of electricity including Ohm's Law, the identification of circuit types and the proper use of test equipment. The development of safe working habits while wiring a gas furnace and performing basic trouble shooting are emphasized. (SCC)

#### AIRC 115 – HVAC Electrical Applications (7 cr)

Students acquire skills for using test meters, ladder diagrams and basic thermostat controls for heating and cooling systems. Students also demonstrate new skills by developing wiring diagrams for an electric furnace with a condensing unit and installing all the necessary controls and wiring for an operational unit. Basic electrical troubleshooting is performed on the system. (SCC)

## 203

#### AIRC 117 - Theory of Heat Transfer (4 cr)

Students explore basic concepts and applications of force, energy, fluids and heat as applied to refrigeration and air conditioning. Topics include energy, heating and air conditioning equipment, thermal heat properties, basic refrigeration cycles, test equipment, and tools of the trade. (SCC)

#### AIRC 125 - Sheet Metal Layout and Fabrication (5 cr)

This course introduces the theory and practical application in sheet metal practices. The use of shop equipment and fabrication methods provides student with the essential skills and techniques in layout and fabrication of frequently used air duct fittings. (SCC)

#### AIRC 128 - Fundamentals of Heating and Mechanical Systems (8 cr)

This course introduces the fundamentals of heating with forced-air fuel gas burning appliances. Other fuel gas appliances are introduced, and the combustion process, as it relates to heating equipment, is explored. Gas codes are introduced with proper venting and piping techniques. Sequence of operation and troubleshooting are emphasized. (SCC)

#### AIRC 137 – Heating Systems Servicing and Troubleshooting (7 cr)

This course offers training and experience with heating equipment. Students are introduced to the basic controls and control systems found on most HVAC heating systems. Electrical and mechanical functions of the individual components and their relationship to a complete system are emphasized. Lab exercises include hands-on training with electrical systems, capacity testing, mechanical and electrical troubleshooting, and service of residential and light commercial units. (SCC)

#### AIRC 201 – Refrigeration Fundamentals (8 cr)

This course introduces the theories of refrigeration and provides students with the fundamentals of physical and chemical laws governing the principles of the refrigeration cycle. Basic refrigeration cycles and components are covered. Applications include brazing techniques and electrical controls. (SCC)

#### AIRC 202 – Thermodynamics of Refrigeration (8 cr)

This course is a continuation of AIRC 201 and provides students with the fundamentals of air conditioning systems and the application of the Mollier Diagram and thermodynamics. Emphasis on practical applications includes basic refrigeration troubleshooting and the use of testing equipment and tools. Lab exercises focus on developing ladder diagrams and troubleshooting electrical components. Prerequisite: AIRC 201. (SCC)

#### **AIRC 230 – Advanced Sheet Metal (Special Fittings & Procedures) (4 cr)** Advanced fitting layout and fabrication. (SCC)

#### AIRC 231 - Residential Energy Analysis (8 cr)

Evaluation of the Heat Gain Loss of a dwelling and providing information to reduce the cost of heating/cooling. (SCC)

#### AIRC 232 - International Fuel Gas Codes (6 cr)

This course introduces international and local codes covering the installation and servicing of fuel gas appliances with inputs under 400,000 BTU/H. Special attention is given to the local interpretation of these codes and the appliances and associated systems inspection process. (SCC)

#### AIRC 233 - NEC for HVAC 06A (6 cr)

This course discusses the general requirements, methods and procedures for HVAC wiring. Hazardous conditions are explored and WAC and RCW codes are introduced. (SCC)

#### AIRC 246 - HVAC Load Calculations (4 cr)

This course includes the study of heat gain and loss in forced-air systems (heating and cooling). Complete heat loss and heat gain calculations are performed manually, and an air distribution system is designed. Students study energy estimating methods and design systems for a building. Students examine current federal, state and local codes and standards (set forth by ASHRAE) as they apply to HVAC systems. Implementation and air systems instrumentation are explored in lab sessions. (SCC)

#### AIRC 247 - Oil Heating Systems (4 cr)

This course is an introduction to residential oil heating. Topics include mechanical and electrical operations, and codes of oil heating systems. Laboratory work covers testing, adjusting and troubleshooting electrical and mechanical problems on oil-fired systems. Prerequisite: Permission of instructor. (SCC)

#### AIRC 249 – Hydronic Heating Systems (7 cr)

Students study basic hydronic heat systems. Topics include mechanical and electrical operations, control systems and codes of hydronic heating systems. Laboratory work covers testing, adjusting and troubleshooting electrical and mechanical problems on hydronic systems. (SCC)

#### AIRC 255 – Installation Practices (7 cr)

This course introduces students to procedures used in the installation of a complete residential central heating, ventilation and air conditioning system. Previously learned theories and associated application opportunities are utilized on a live project. Proper installation of components and use of hand tools is emphasized. Prerequisite: Permission of instructor. (SCC)

#### AIRC 262 – Control Theory and Automation (7 cr)

This course introduces the fundamentals of control theory and application. Students set up and run an economizer system, use a phychrometric chart, learn common terms of basic direct digital controls (DDC), interface basic controls with computers, and program thermostats with both computer and command displays. (SCC)

## AIRC 263 — System Servicing and Troubleshooting of Air Conditioners (7 cr)

Students are exposed to troubleshooting fundamentals, concentrating on the operation and analysis of AC systems and control circuits. Testing operations of capillary tubes and TVX systems are emphasized. Problem-solving methods and mechanical systems troubleshooting also are covered. Testing, adjusting and troubleshooting of electrical and mechanical problems are covered in lab exercises. Prerequisite: Concurrent enrollment in AIRC 202. (SCC)

#### AIRC 264 – System Servicing and Troubleshooting of Heat Pumps (7 cr)

This course offers training and experience with mechanical air conditioning equipment used in comfort cooling and heat pump applications. Lab exercises include hands-on training with electrical systems, capacity testing, and mechanical and electrical troubleshooting of residential and light commercial heat pumps. Students learn to install and start up a system in a residence. Refrigeration transition and recovery certification are included. Prerequisite: AIRC 201, 202. (SCC)

#### AIRC 265 – Direct Digital Control Systems (8 cr)

This course provides advanced programming and networking applications. Students set up and program various components of a direct digital control (DDC) system. All components are tied to the building manager and the system is monitored for proper operation. Students learn to use the computer to troubleshoot the system. External equipment is connected to the system for programming and monitoring. (SCC)

#### AIRC 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

AIRC 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### AIRC 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### **HISTORY**

#### HIST 110 – British Life and Culture (5 cr)

British life and culture is an interdisciplinary course designed to give students a broad overview of British culture and civilization. It takes a social, historical and cultural approach to contemporary British society. This course includes lectures given by adjunct British faculty, supporting seminars and related field trips to such places as the Museum of London, the Globe Theatre, the National Gallery and the House of Parliament. Note: Credit may not be earned for both HUMAN 205 and HIST 110. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

#### HIST& 116 – Western Civilization I (5 cr)

The major political, social and economic developments of pre-Hellenic, Greek, Roman and medieval history in terms of their contribution to Western civilization. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST& 117 – Western Civilization II (5 cr)

European man from the feudal period through the French Revolution and the Napoleonic period. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST& 118 – Western Civilization III (5 cr)

The development of Western civilization from the French Revolution to the present. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST& 136 – US History 1 (5 cr)

The historical development of the American people from the beginning of European contact to the end of the Civil War with emphasis on the indigenous peoples, the Colonial period, independence, the Constitution, the early Republic and the sectional crisis. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST& 137 – US History 2 (5 cr)

The development of the United States from the end of the Civil War to the present; emphasis on both the understanding and evaluation of basic historical materials. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST 141 – History of China (5 cr)

Preparation for advanced-level courses in Chinese civilization; an understanding of the people of China, their traditions, development and histories. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

#### HIST 142 – History of Japan (5 cr)

Preparation for advanced-level courses in Japanese history; an understanding of the people of Japan, their traditions, development and histories. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

#### HIST& 214 – Pacific NW History (5 cr)

The exploration, settlement and growth of the political, economic and social institutions of Washington and the Pacific Northwest; includes the study of local and state government and environmental problems in the state of Washington. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST& 219 – Native American History (5 cr)

This introductory course includes an analysis of early North American Indian history pre-colonization, colonization, and post colonization with a chronology and emphasis on the events and developments of the indigenous peoples who inhabited this country from the period of European contact through the end of the 20th century. (SCC, SFCC)

#### HIST 222 - Canadian History (5 cr)

A survey of Canadian history from the founding of French America in the 16th century, through the 19th century Confederation era, culminating with the significant developments and events of the 20th century. (SCC)

#### HIST 230 – Latin American History (5 cr)

A survey of Latin American history from the Colonial era through the Independence period, culminating with the economic, social, and political developments and significant events of the 20th century. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HIST 237 - History of Australasia: Australia and New Zealand (5 cr)

Examines the history of the Australasian nations of Australia and New Zealand about 1,200 years ago, through the long and often difficult process of becoming the modern island nations of Australia and New Zealand. Attention is given to the various groups that have migrated to Australasia, exploration and colonization of the area, development of settlements and colonial governments, the move toward nationhood, and emergence of the modern nations of Australia and New Zealand in the 20th Century. Prerequisite: College-level reading and writing skills recommended (SFCC)

#### HIST 240 - History of Modern Middle East (5 cr)

This course prepares students for advanced-level courses in Middle Eastern studies. The time period primarily covered the modern developments from the ottoman period to the present, with an emphasis placed on understanding the peoples of the Middle East, their traditions and histories. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40, ENGL&102 advised. (SCC, SFCC)

#### HIST 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

**HIST 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SCC, SFCC)

#### HOTEL AND RESTAURANT MANAGEMENT

#### HM 110 - Introduction to Hospitality (5 cr)

This course introduces students to the basic principles of public hospitality. The history of the industry, organizational methods, employment opportunities and problems facing the hospitality industry are presented. (SCC)

#### HM 111 - Seminar - Hotel/Restaurant/Tourism (2 cr)

Students study recent trends and business factors that affect the hospitality/tourism industry. Various components of hotel/restaurant/tourism are emphasized. (SCC)

#### HM 112 – Hospitality Mathematics (3 cr)

This course introduces the concepts of mathematics relating to the hospitality field. Liquid and dry measurements, percentages, and the metric system are introduced. Recipe costing, portion control, contraction and expansion of recipes and formulas, and yield analysis of food products are calculated. (SCC)

#### HM 115 – Food Sanitation (3 cr)

This course introduces students to the basic principles of sanitation and their significance in food service. Implementing sanitary procedures and programs in the kitchen is emphasized. A national certification exam is given at the conclusion of the course. (SCC)

#### HM 116 – Nutrition for Chefs and Restaurant Managers (3 cr)

This course introduces students to the characteristics, functions, and food sources of major nutrients and how to maximize nutrient retention in food preparation and storage. Digestion, energy needs, recommended daily allowances and dietary guidelines are emphasized. Prerequisite: HM 115 or concurrent enrollment. (SCC)

#### HM 124 – Cooking Applications I (4 cr)

This course emphasizes working with raw materials, preliminary cooking and flavoring, and preparing for a variety of cooking methods. (SCC)

#### HM 126 – Food Science (5 cr)

This course emphasizes basic cooking methods including the preparation of soups; stocks and sauces, meat, fish and poultry; vegetables, fruits and starches; as well as an introduction to breakfast and baking preparation. Prerequisite: Permission of instructor or counselor. (SCC)

#### HM 130 – Human Relations (5 cr)

Students are introduced to the basic principles of human behavior and their application in developing positive working relationships. (SCC)

#### HM 131 - A la Carte Service (9 cr)

This course addresses theory and practical applications in the methods used to provide exceptional a la carte service at a variety of functions. (SCC)

#### HM 141 – Maintenance and Engineering (5 cr)

Students are introduced to the basic technical knowledge required to establish preventive maintenance procedures for hotel/restaurant facilities. (SCC)

#### HM 150 - Basic Foods (5 cr)

Students study theory and practical applications in the production of quality foods in quantity. (SCC)

#### HM 151 – Restaurant Management (3 cr)

Students are introduced to the food and beverage operation of hotels and motels. (SCC)

#### HM 153 – Restaurant Service (2 cr)

Students are introduced to the operation of a typical restaurant in a lab setting. Practical aspects of restaurant service are emphasized. Prerequisite: Concurrent enrollment in HM 151. (SCC)

#### HM 155 – Hospitality Purchasing (2 cr)

Students are introduced to the procedures for purchasing foods in quantity with emphasis on the selection and procurement methods utilized in the hospitality industry. (SCC)

#### HM 156 – Beverage Management (3 cr)

This comprehensive course addresses all aspects of operating a beverage service for profit. Planning equipment and staff, purchasing, budgeting, inventory management, and marketing are emphasized. Product identification, alcohol awareness, basic bartending procedures, and state and local regulations governing the industry are presented. Receiving a Washington State Class 12 and Class 13 license is included in the course material. (SCC)

#### HM 160 – Supervisory Housekeeping (3 cr)

Students are introduced to the fundamentals of housekeeping management, recordkeeping and executive responsibilities. Employee training methods are emphasized. (SCC)

#### HM 202 - Front Office Procedures (5 cr)

Students are introduced to the essential routines addressing all aspects of front office procedures. Registration and reservation processes, rules and regulations and their application to the hotel-motel industry, and ethics and general strategies used when dealing with the public are emphasized. Prerequisite: CIS 110. (SCC)

#### HM 205 – Hotel/Restaurant Law (5 cr)

Students are introduced to the basic principles of law as it pertains to the operation of hotels and motels. Legal liability, conventional and sales contracts, statutory law, and innkeeper and guest responsibilities are emphasized. (SCC)

#### HM 208 – Hotel Sales and Marketing (5 cr)

Students are introduced to the fundamentals of hotel/restaurant sales promotion, publicity, advertising, finances and other marketing skills. Advertising and marketing strategies are emphasized. Prerequisite: CIS 110, HM 130. (SCC)

#### HM 220 – Tourism and the Hospitality Industry (5 cr)

Students are introduced to package tourism arrangements, economics of tourism, and marketing strategies and their relationship to the industry. Prerequisite: CIS 110, HM 130. (SCC)

## COURSE DESCRIPTIONS

Students are introduced to the principles of hotel/restaurant management and their relationship to the overall management of facilities and personnel in the industry. Development of supervisory skills and coaching techniques to improve employee performance is emphasized. Prerequisite: CIS 110 and HM 130. (SCC)

#### HM 255 – Menu Planning (3 cr)

Students are introduced to the composition of menus, and includes purchasing procedures, merchandising, servicing and pricing of foods. Planning a functional, operative menu using appropriate menu copy and layout is emphasized. Prerequisite: Permission of the instructor or counselor. (SCC)

#### HM 265 – Hospitality Cost Controls (5 cr)

This course introduces the principles and procedures involved in an effective system of food, labor and sales income control. The development and use of standards and the calculation of actual costs are emphasized. (SCC)

#### HM 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### HM 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### HM 288 – Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### HUMAN SERVICES

#### HS 102 - Introduction to Human Services (5 cr)

This course is an introduction to human services. Included are current services, merits and shortcomings of current services, and new programs that are needed to meet service gaps and shortcomings. (SFCC)

#### HS 105 – Child Abuse (5 cr)

The focus of the course explores the phenomena of child abuse from the perspective of the family. From this perspective, the class examines risk factors that predispose families toward child abuse and neglect. The class delves into the legal and psychological issues of physical abuse, physical neglect, psychological maltreatment and sexual abuse. The class will highlight approaches to prevention. (SFCC)

#### HS 115 - Social Policy (5 cr)

An introductory course that is policy-oriented. It attempts to instill systematic habits of analysis and inquiry that will increase the student's awareness and objectivity. The focus is on current issues and problems in social work. (SFCC)

#### HS 131 – Human Services Seminar I (1-5 cr)

This course acquaints students with various people-helping skills applicable to a variety of social service settings in the community. Designed to fill emerging needs prior to the development of a regular course or to fill one-time training needs. This course may be repeated for up to 10 credits. (SCC, SFCC)

#### HS 132 - Human Services Seminar II (1-5 cr)

This course acquaints students with various people-helping skills applicable to a variety of social service settings in the community. Designed to fill emerging needs prior to the development of a regular course or to fill one-time training needs. This course may be repeated for up to 10 credits. (SCC, SFCC)

#### HS 136 – Improving Interpersonal Communication (5 cr)

Designed to help people live more effectively through improved communication skills. Study, awareness and practice of these skills will enhance students' effectiveness in beginning, maintaining and ending relationships. Students will gain skills in managing controversy, stress and anger. The course is a balance between theory and practice of the skills and concepts involved in becoming an effective communicator. (SFCC)

#### HS 150 - Foster Care (1-5 cr)

A comprehensive parenting course designed specifically for foster parents. It is taught in a relaxed, friendly manner that allows for maximum interaction enabling foster parents to get answers to their day-to-day questions. Specific topics covered include building the child's self-concept, human growth and development, awareness of culture needs, and permanency. Special attention is given to issues of discipline and modifying children's behavior. Working with the child welfare system, and dealing with stress and burnout also are explored. (SFCC)

#### HS 151 – Independent Living Readiness Training (3 cr)

To prepare foster parents and social service staff to assist the adolescent who lacks the support of a stable family environment in making the transition to living independently. The three main objectives are to increase ability to assess youth's willingness and ability to prepare for independence; to increase skills in promoting the readiness of youth for independent living; and to increase knowledge and familiarity of community resources. Prerequisite: HS 150. (SFCC)

#### HS 221 - Treatment Theories in Human Services (5 cr)

This course covers concepts, theories and practices regarding social work treatment. It focuses on the constructs, underlying principles, theories, practices and desired outcomes of several contemporary treatment modalities. Prerequisite: HSSUB 176/second year standing. (SFCC)

#### HS 238 – Group Effectiveness Training (5 cr)

Provides students with understandings of and experiences in group interaction. Concepts to be explored include group content and process, leadership styles, and how to begin, maintain and analyze functional groups. Prerequisite: HS 136 or permission of instructor. (SFCC)

#### HS 277 – Human Sexual Development (3 cr)

This course is designed to familiarize students with the various aspects of human development. Included are units pertaining to maleness and femaleness reproductive anatomies, hormonal influences, sexuality and communication, dysmenorrhea, P.M.S., pregnancy and birth, family planning, abortion, rape, incest, homosexuality, AIDS, STDs-VD, and responsible sexual expression. Open to all students. (SFCC)

#### HS 281 – Practicum I (5 cr)

Students in the human services programs are placed in a practicum setting where they have an opportunity to observe and to work with people in a human service setting. Each student is individually placed in accordance with his/her career direction. Placements are made in areas such as gerontology, social work, education, early childhood education, special education and hearing impaired. Individual student conferences are arranged to facilitate the total experience. (SFCC)

#### HS 282 - Practicum II (5 cr)

Students in the human services programs are placed in a practicum setting where they have an opportunity to observe and to work with people in a human service setting. Each student is individually placed in accordance with his/her career direction. Placements are made in areas such as gerontology, social work, education, early childhood education, special education and hearing impaired. Individual student conferences are arranged to facilitate the total experience. (SFCC)

#### HS 283 – Practicum III (5 cr)

Students in the human services programs are placed in a practicum setting where they have an opportunity to observe and to work with people in a human service setting. Each student is individually placed in accordance with his/her career direction. Placements are made in areas such as gerontology, social work, education, early childhood education, special education and hearing impaired. Individual student conferences are arranged to facilitate the total experience. (SFCC)

#### **HUMANITIES**

#### HUM& 101 – Intro to Humanities (5 cr)

This is an interdisciplinary program introducing students to the humanities through the arts-music, drama, poetry, movies, dance and the visual arts. In addition to an understanding of the basic elements and principles of the arts, each student perceives the role of the arts in society, the range of creative expression and what is involved in the creative process. Participation involves a variety of learning experiences including attendance at campus and community arts events, group discussion, multimedia instructional units and personal creative expression. Students may purchase tickets for a wide variety of offerings such as Civic Theatre, Spokane Symphony Orchestra, movies, etc., in lieu of a textbook. (SCC, SFCC)

#### HUM 102 - Introduction to Women's Studies (5 cr)

This course explores issues relating to women including but not limited to women's history, women's work and the socialization of women. Additionally, this course examines some of the differences between women and men, with the hope that through descriptive study, female and male students become empowered in new ways. In part, this goal encourages an in-depth look at the social structures and dominant dialogues that have posed limits upon both women and men while encouraging the search for removing such limits. (SCC, SFCC, IEL)

#### HUM 107 – Introduction to Cultural Studies (5 cr)

This course introduces students to the practice of analyzing American popular culture in its various forms, from films, advertisements and music to the habits and practices that characterize everyday life in the United States. Students learn to "read" popular culture using a wide range of interdisciplinary perspectives and theories, in particular those that emphasize how class, gender, sexuality, nationality and race are represented in cultural texts. Students discuss how these representations shape cultural beliefs and attitudes. Prerequisite: ENGL& 101 or permission of instructor. SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HUM 141 - Introduction to Film (5 cr)

This course is a basic introduction to how films communicate meaning and influence society. The course gives the students an understanding of film forms, techniques and styles. Students develop a critical viewpoint and be able to explain the many ways in which film communicates. The overall goal of the course is to produce perceptive and sensitive film viewers. Feature-length films are viewed in class. Prerequisite: SFCC only: Recommended minimum reading placement scores: COMPASS 80, ASSET 40. (SCC, SFCC)

#### HUM 201 - Humanities, Past, Present, and Future (5 cr)

An interdisciplinary class introducing students to the human quest for the meaning of life. Students will analyze literature, philosophy, music, history, and the visual arts of the past and present and then create future scenarios for themselves and societies. In addition to lecture presentations, students have assigned reading, elective reading and writing assignments weekly. Each student will also has a special humanities project. (SCC)

#### HUM 205 – British Life and Culture (5 cr)

British life and culture is an interdisciplinary course designed to give students a broad overview of British culture and civilization. It takes a social, historical and cultural approach to contemporary British society. This course includes lectures given by adjunct British faculty, supporting seminars and related field trips to such places as the Museum of London, the Globe Theatre, the National Gallery and the House of Parliament. This course is offered only in England for SFCC students registered in the Washington Community College Consortium for Study Abroad in London Program. Note: Credit may not be earned for both HUM 205 and HIST 110. (SFCC)

#### HUM 207 - Basic Movie Making Techniques (5 cr)

This course is designed to acquaint the student with the three basic phases of movie making and emphasizes the directorial and storytelling functions of the media. Prerequisite: HUM 141 or permission of instructor. (SCC)

#### HUM 221 - Great Directors (5 cr)

This course is designed for students interested in exploring the films, styles and themes of great film directors--American and international. Students study four American directors, four international directors and one independent director. The directors and films studied vary each quarter. In addition, each student researches and studies films of one director of his/ her choice. (SCC, SFCC)

#### HUM 222 - American Film Classics (5 cr)

American classic films, through the 1990s, are viewed and discussed in order to appreciate the evolution of the technical art of the cinema and to analyze how film content is a social barometer of the period of time in which it was produced. Full-length feature classics such as "Birth of a Nation" and "Citizen Kane" are studied. (SFCC)

#### HUM 223 - Classic International Cinema (5 cr)

An overview of the history of international cinema as art rather than as a commercial product. Major national film stylistic developments and movements are studied by viewing representative feature length films including classics such as Einstein's Potemkin, De Soca's The Bicycle Thief and Kurosawa's Ran. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

#### HUM 224 – Contemporary Global Cinema (5 cr)

This course is a study of people of different national, ethnic and racial backgrounds via a review of current international cinema. Emphasis is placed on exploring economic, social and political issues. Feature length films will be viewed in class, including Zhang Yomou's Story of Qiu Ju, Nihita Mikhalkov's Burnt by the Sun and Gregory Nava's Mi Familia. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

#### HUM 225 - Independent Film (5 cr)

This course is for students interested in exploring films made outside of the studio system, usually on low budgets and often exploring themes, values and subject matter which are highly personal and intense in nature including themes which mainstream cinema finds uninteresting, offensive or not likely to produce a profitable product. (SCC, SFCC)

#### HUM 236 – The Documentary Film (5 cr)

A course designed to explore, analyze and interpret the documentary as an aesthetic form; a device to document human experience; and a vehicle of social change. Students explore the historical perspective of the documentary as well as examine the tradition of film techniques that affect the reality and "truth" depicted through the genre. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

#### HUM 241 – The Impact of the Nazi Past (5 cr)

This course is designed for students interested in the history of Germany's Nazi past. Students examine the depiction of national socialism and racism in important German language films by significant European film directors from the 1950s to the present. Class discussion encourages a comparative perspective that draws connections to the issues of nationalism and racism in Germany and the U.S. today. The course is taught in English, and all films have English subtitles. (SFCC)

#### HUM 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### HUM 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### HUM 295 – Special Topics in Humanities (1-5 cr)

A team-taught interdisciplinary class. Specific content and focus vary from quarter to quarter according to designation and credits filed in advanced of each scheduling. Students participate in a variety of learning experiences such as lectures, seminars, panel discussions, etc., all of which explore selected issues from the following areas: Philosophy, music, art history, film, drama, literature or the history of ideas. (SCC, SFCC)

#### HUM 296 – Special Topics in Humanities (1-5 cr)

A team-taught interdisciplinary class. Specific content and focus vary from quarter to quarter according to designation and credits filed in advanced of each scheduling. Students participate in a variety of learning experiences such as lectures, seminars, panel discussions, etc., all of which explore selected issues from the following areas: Philosophy, music, art history, film, drama, literature or the history of ideas. (SCC, SFCC)

#### HUM 297 - Special Topics in Humanities (1-5 cr)

A team-taught interdisciplinary class. Specific content and focus vary from quarter to quarter according to designation and credits filed in advanced of each scheduling. Students participate in a variety of learning experiences such as lectures, seminars, panel discussions, etc., all of which explore selected issues from the following areas: Philosophy, music, art history, film, drama, literature or the history of ideas. (SCC, SFCC)

## HYDRAULIC AND PNEUMATIC AUTOMATION TECHNICIAN

#### FLPT 111 – Hydraulic Calculations (5 cr)

This course is a review of basic algebra skills and procedures required for setting up and solving fluid power problems. Mathematical formulas required to calculate oil pressure, actuator forces and speed, oil flow and velocities required for fluid line sizing are emphasized. The use of force and speed requirements of a machine to set up the hydraulic system calculations required for determining oil flow, oil pressure and the input horsepower is stressed. Prerequisite: Concurrent enrollment in FLPT 112, 113, 114. (SCC)

#### FLPT 112 – Hydraulic Basics and Theory (5 cr)

This course introduces basic laws related to oil hydraulics and their practical applications to hydraulic component operation by changing either oil flow or pressure. Students relate the hydraulic component to the corresponding ANSI fluid power symbol and study hydraulic schematics for automated machinery identifying each component and its application and effect on the total system. Industrial plants and machine manufacturers who build machinery using industrial hydraulic components are studied in the classroom. Prerequisite: Concurrent enrollment in FLPT 111, 113, 114. (SCC)

#### FLPT 113 – Blueprint Reading (4 cr)

Students are introduced to the basic construction of automated machinery including the various types of materials, fasteners, and welding and machining operations used to fabricate machine parts from mechanical drawings. Machining tolerance, finishes, parts dimensioning, welding symbols, and the types of details, sections and views used on typical mechanical drawings are presented. Prerequisite: Concurrent enrollment in FLPT 111, 112, 114. (SCC)

#### FLPT 114 - Basic Hydraulics Lab (2 cr)

This course offers practical applications in the study of oil flow and pressure and their relationship to component operation. Students learn to read hydraulic schematics for automated machinery. Prerequisite: Concurrent enrollment in FLPT 111, 112, 113. (SCC)

## COURSE DESCRIPTIONS

#### FLPT 121 – Pneumatic Theory (6 cr)

This course introduces basic laws related to compressed air and their application in air compressors, plant air, piping, and sizing pneumatic components. Mathematical formulas and setup procedures for calculations required in pneumatic systems and the production of schematic drawings for pneumatic power and control circuits are included. Prerequisite: Concurrent enrollment in FLPT 122, 123. (SCC)

#### FLPT 122 – Drawing Fundamentals (3 cr)

This course introduces basic sketching and lettering emphasizing orthographic and isometric drawing styles. The layout and dimensioning of shop mechanical drawings are presented. Prerequisite: Concurrent enrollment in FLPT 121, 123. (SCC)

#### FLPT 123 - Machine Controls (7 cr)

Students study the interfacing of mechanical, hydraulics, pneumatics with electrical, electronic or pneumatic controls for predetermined sequence of operation for automated machines. Reading and drawing the electrical schematics used to control solenoid valves for hydraulic or pneumatic actuators; terminology and symbols used in programming schematics for an Allen Bradley Mini PLC 2 programmable controller; interpreting symbols required for reading air logic pneumatic schematics used for machine controls; and writing machine sequence of operations to match schematic operations are emphasized. Prerequisite: Concurrent enrollment in FLPT 121, 122. (SCC)

#### FLPT 131 – Hydraulic Systems (6 cr)

This course is a detailed study of five basic hydraulic systems and their applications to powering production machinery. Basic systems, hydraulic components and their working relationship which is controlled by their location, and piping arrangement in the overall system are emphasized. Prerequisite: FLPT 111, 112, 121 and concurrent enrollment in FLPT 132, 133, 134, 135. (SCC)

#### FLPT 132 – Fluid Line Fabrication (2 cr)

This course offers practical applications in fluid conductor fabrication emphasizing the safe and accurate operating procedures required in the setup and use of specialized tools. Fabricating procedures include cutting and threading pipe; cutting, bending and flaring tubing; cutting hydraulic hoses; and assembling permanent and reusable hose ends. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 133, 134, 135. (SCC)

#### FLPT 133 - Fluid Line Connectors (5 cr)

Students study the three basic types of fluid lines and the fittings required to install them in a hydraulic system. Fluid line construction, materials used, manufacturing tolerances, quality control, specifications for purchasing, pressure limitations and oil flow characteristics based on I.D. are covered. Fitting identification, description and manufacturer part numbers are used to acquaint students with high pressure, low pressure and vacuum applications. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 132, 134, 135. (SCC)

#### FLPT 134 - Shop Drawing (2 cr)

Students are introduced to drawing and lettering skills required to produce drawings of parallel bars, directional valve templates, and pump and motor mounting brackets. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 132, 133, 135. (SCC)

#### FLPT 135 – Fluid Line Sizing Calculations (2 cr)

This course deals with specific calculations required in the study of fluid lines to size fluid lines in hydraulic systems. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 132, 133, 134. (SCC)

#### FLPT 136 - Applied Hydraulics/Pneumatics (2-5 cr)

This course introduces to the basics of fluid power and its application to various programs. Hydraulic and pneumatic systems operation and their relationship to electrical, electronic or pneumatic control systems are emphasized. The course is offered for variable credits to meet the needs of various programs. (SCC)

#### FLPT 201 – Fluid Power/Pneumatic Math (3 cr)

This course introduces the use of pneumatics to enrich and extend the teaching of applied math and science concepts in junior and senior high schools. (SCC)

#### FLPT 230 – Advanced Pneumatics Theory (3 cr)

Students learn energy and air consumption; pneumatic automation components; pneumatic system design and vacuum system and applications. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

#### FLPT 231 – Advanced Pneumatics Lab (2 cr)

Students learn energy and air consumption; pneumatic automation components; pneumatic system design and vacuum system and applications. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

#### FLPT 232 – Mechanical Drive Systems Theory (3 cr)

Students learn the Mechanical Drive System servo and stepper motor drives; lead screw technologies; variable speed drives and drive controls. Prerequisite: FLPT 231 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

#### FLPT 233 - Mechanical Drive Systems Lab (3 cr)

Students learn the Mechanical Drive System servo and stepper motor drives; lead screw technologies; variable speed drives and drive controls. Prerequisite: FLPT 232 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

#### FLPT 234 – Velocity and Load Calculations (1 cr)

This course content relates to load velocities and kinetic energy; moment load calculations and force requirements. Prerequisite: FLPT 233 and concurrent enrollment in FLPT 230, 231, 232, 233. (SCC)

#### FLPT 241 — Fluid Power Shop Theory (5 cr)

Students learn to setup and use basic shop tools required to machine hydraulic manifolds, fabricate power units and overhaul hydraulic components. Shop terminology, tool identification, and the proper use and care of precision layout and measuring tools are included. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 242, 243, 244. (SCC)

#### FLPT 242 — Machine Tool Operation (7 cr)

Students learn shop layout procedures and skills by using shop drawings completed in the third quarter. They develop practical skills required to sharpen drill bits, lathe tools, milling cutters and removing broken taps, safely operate cut-off and band saws, drill presses, lathes, milling machines, and surface grinders while completing required shop projects. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 241, 243, 244. (SCC)

#### FLPT 243 – Advanced Machine Controls (4 cr)

This course is a study of the advantages of programmable logic controllers (PLC) over relay logic machine control. Students learn the advantages of machine control available when using data manipulation features in PLC programming. Converting relay logic electrical schematic drawings to PLC schematics, developing a PLC program from a specific machine sequence of operation, programming the PLC and verifying the program on a machine simulator board wired to the PLC are emphasized. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 241, 242, 244. (SCC)

#### FLPT 244 — Machine Feed and Speed Calculations (1 cr)

This course deals with specific calculations required for the proper operation of drills, lathes and milling machines used in the hydraulics and pneumatic industry. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 241, 242, 243. (SCC)

#### FLPT 251 – Hydraulic Circuits (4 cr)

Students learn the principles of circuits, components and fluid line sizing. Estimating costs for materials is introduced. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 252, 253, 254. (SCC)

#### FLPT 252 – Hydraulic Component Repair (6 cr)

Students learn shop procedures for hydraulic and pneumatic component disassembly, inspection, repair and testing using prepared lab sheets and manufacturers' parts sheets. Safe use of hand tools and the importance of cleanliness in the work area are emphasized. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 251, 253, 254. (SCC)

#### FLPT 253 - Fluid Line Layout and Assembly (2 cr)

This course introduces basic procedures required for the layout and assembly of pipe and pipe fittings to fit a specific component arrangement. The fabrication of fluid lines to fit existing tube fittings that meet or exceed the manufacturers' pressure test specifications is emphasized. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 251, 252, 254. (SCC)

#### FLPT 254 – Advanced Hydraulics Lab (3 cr)

This course offers practical applications in the creation of hydraulic circuits emphasizing calculations, selection of components and sizing fluid lines. Costing out materials is presented. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 251, 252, 253. (SCC)

#### FLPT 261 — Hydraulic Component Testing (6 cr)

Students learn safe operating procedures required to set up and test rebuilt hydraulic components. Comparison of flow data at various pressures on open and closed hydraulic pump circuits is emphasized. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 262, 263. (SCC)

#### FLPT 262 – Machining Hydraulic Manifolds (5 cr)

This course offers theory and practical applications to the layout and machining procedures required to make hydraulic manifolds. Specialized procedures including the use of cartridge valve tooling, subplate valve layout templates and straight threat"O"ring port tooling are emphasized. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 261, 263. (SCC)

#### See program/course abbreviation key on page 143.

#### FLPT 263 — Power Unit Fabrication (3 cr)

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Students study various power unit designs using pictures, slides, drawings and bill of materials. Shop work may include the setup and demonstration of the five basic power units. Depending upon the availability of equipment and materials, the rebuilding or fabrication of new power units may be introduced. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 261, 262. (SCC)

#### FLPT 264 - Fluid Power Computer Applications (4 cr)

Students are introduced to various computer applications used in the fluid power industry. Students learn basic AutoCad commands and procedures used to create schematics using specialized symbol menus. They become proficient in the use of Automation Studio, a fluid power simulation program, to design and troubleshoot circuits. In addition, students learn to develop a hydraulic engineering calculations worksheet using Excel and to use manufacturers'CDs for design and engineering specifications. Prerequisite: Successful completion of first year or permission of instructor. (SCC)

#### FLPT 265 - Hydraulic Circuit Design (3 cr)

This course offers practical shop experience in the construction of a hydraulic circuit design from an automated machine specification. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 268, 269. (SCC)

#### FLPT 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### FLPT 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### FLPT 268 - Fluid Power Application and Sales (5 cr)

This course introduces controlled selling techniques required for successful fluid power sales. Computerized inventory control methods are included. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 265, 269. (SCC)

#### FLPT 269 – Hydraulic Manifold Design (3 cr)

This course offers theory and practical lab experience in the identification of important controlling factors necessary to specify a custom made hydraulic manifold. Students learn to generate a series of manifold drawings using component layout techniques and AutoCad. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 265, 268. (SCC)

#### FLPT 271 – Pneumatic Theory (2-5 cr)

This course introduces basic pneumatic (compressed air) theory, identification of components in a pneumatic system, and basic circuit design and troubleshooting. (SCC)

#### FLPT 272 - Pneumatic Math and Symbols (2-4 cr)

This course introduces basic pneumatic theory and the interpretation of pneumatic symbols and diagrams. Related mathematics for calculating flow, pressure and volume is presented. (SCC)

#### FLPT 273 – Hydraulic Theory (2-5 cr)

This course introduces basic hydraulic theory. Students learn to identify and apply components in a hydraulic system. (SCC)

#### FLPT 274 – Applied Hydraulics (2-4 cr)

This course offers practical application and interpretation of hydraulic circuits emphasizing the drawing and interpretation of circuits using proper schematic symbols. (SCC)

#### FLPT 275 – AC/DC Electronic Control (8 cr)

This course introduces fluid power students to basic electronics. A broad range of topics including safety, tools and test equipment, soldering techniques, wave forms, Ohm's and Kirchhoff's laws are emphasized. Passive devices, such as resistors, capacitors, inductors and transformers are included. (SCC)

#### FLPT 277 – Digital Electronic Control (6 cr)

Students study principles and techniques of modern digital control systems. A block diagram approach is used to teach the basic logic operations before introducing the electrical characteristics of logic ICs. This knowledge of a logic block's input and output characteristics allows students to "fit" it properly into a complete system. (SCC)

#### FLPT 279 - Proportional Valves (4 cr)

Students are introduced to the use of proportional valves to accurately position, accelerate and decelerate actuators. Precise mechanical positioning of the valve spool and the interfacing of an electronic sensor to indicate spool position is emphasized. The effect of infinite spool positioning on oil pressure and the elimination of hydraulic system shock is covered. Prerequisite: FLPT 112 or 136 or 273 and 274 or permission of instructor and concurrent enrollment in FLPT 275 or permission of instructor. (SCC)

#### FLPT 281 – Solid State Electronic Control (8 cr)

Students learn to identify components, related schematic symbols and descriptive terminology i.e., diodes, transistors and operational amplifiers. Course work covers the DC power supply as it applies to proportional valve circuit cards. Special emphasis is placed on the operation and calibration of the electronic circuits used to position and control a proportional valve. Hydraulic lab trainers are used to demonstrate the control of hydraulic cylinders and motors. Prerequisite: FLPT 275 or permission of instructor. (SCC)

#### FLPT 283 — Microprocessor Control (6 cr)

Students are provided with a comprehensive up-to-date study of the principles and techniques of modern microprocessor control systems. Applications are presented to show how logic devices are used in a typical microcomputer controlled system. The acquired knowledge is then applied by wiring a system using a microprocessor control card. Prerequisite: FLPT 275, 277 or permission of instructor and concurrent enrollment in FLPT 281 or permission of instructor. (SCC)

#### FLPT 285 - Servo Valves (4 cr)

Students are introduced to the operation and application of servo valves in a hydraulic system. The importance of accurate control and positioning in machine operations is emphasized. Oil cleanliness and filtration, torque motor identification and operation, first- and second-state valve operation are stressed. Circuit design of electronic feedback loops is covered. Prerequisite: FLPT 112 or 136 or 273 and 274 or permission of instructor. (SCC)

#### FLPT 287 – Hydraulic System Electronic Control (6 cr)

This course provides an overview of the basic electronic components studied in previous class and how they are designed into dedicated electronic control hardware. Emphasis is placed on how they control, sequence and monitor the operation of an automated hydraulically controlled machine. Lab exercises involve the design, installation and startup of typical electronically controlled circuits. Plant tours and field trips are used to enhance the lab experience. Prerequisite: FLPT 279, 281, 283, 285 or permission of instructor. (SCC)

#### FLPT 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### FLPT 289 – Logic Element Circuitry (3 cr)

Students are introduced to the construction, special features and applications of logic elements of hydraulic systems. Remote control of logic elements using standard electrically controlled directional valves and electronically controlled proportional valves is emphasized. Other topics covered include the multifunction capabilities of logic elements (directional control, flow control and pressure control of hydraulic oil). Prerequisite: FLPT 131 or permission of instructor. (SCC)

#### FLPT 290 – PLC Applications (5 cr)

Students are introduced to the advanced control options available in programmable controllers. Interfacing of the PLCs with electronically controlled proportional and servo valves is emphasized. Lab exercises that involve writing of programs that accurately position hydraulic cylinders are included. An overview of PLC graphic capabilities and uses is presented. Prerequisite: FLPT 243. (SCC)

#### **INDUSTRIAL FIRST AID**

#### ISFTY 105 – CPR - Basic Life Support (1 cr)

Basic life support skills in cardiopulmonary resuscitation according to AHA guidelines. Practical experience is given in one-person, two-person and infant CPR. (SCC)

#### ISFTY 111 – Industrial First Aid (2 cr)

This is a basic first aid course encompassing the following: Bleeding control and bandaging; practical methods of artificial respiration including mouthto-mouth and mouth-to-nose resuscitation; cardiopulmonary resuscitation; poisons, shock, unconsciousness and stroke; burns and scalds, sunstroke, heat exhaustion, frostbite and freezing; strains, sprains and hernias; fractures and dislocations; proper transportation of injured; bites and stings; and subjects covering specific health hazards likely to be encountered by coworkers of first aid students enrolled in the course. (SFCC - telecourse) (SCC)

#### INTEGRATED BUSINESS AND ENTREPRENNEURSHIP PROGRAM

#### IBE 201 – Integrated Business and Entrepreneurship Principles I (10 cr)

The IBE Principles I course offers a hands-on approach to training future business leaders and entrepreneurs. College instructors and local business and community leaders guide student teams through the process of identifying a business product or service, conducting market research, and developing a business plan outline. This program is limited to individuals who have received permission of Program Director and have completed IBE application. (SCC)

## COURSE DESCRIPTIONS

## IBE 202 — Integrated Business and Entrepreneurship Principles II (10 cr)

The IBE Principles II course offers a hands-on approach to training future business leaders and entrepreneurs. College instructors and local business and community leaders guide student teams through development and management of business operations, including accounting systems, understanding legal and regulatory issues, and identifying and securing material resources. Prerequisite: IBE 201 or instructor permission. (SCC)

## IBE 203 — Integrated Business and Entrepreneurship Principles III (10 cr)

The IBE Principles III course offers a hands-on approach to training future business leaders and entrepreneurs. College instructors and local business and community leaders guide student teams through the creation and execution of a marketing plan and management of human resources. This course concludes with a capstone team presentation of the business plans developed throughout the IBE program. Prerequisite: IBE 202 or instructor permission. (SCC)

#### **INTERIOR DESIGN**

#### INTDS 105 – Design Drawing (4 cr)

Design drawing is a beginning drawing class that offers design students a strong introduction to drawing skills needed in their profession. The class emphasizes the development of close observation skills and composition as students experience the fundamentals of drawing line, shape, light and reflection, shade and shadow, and perspective as related to interior subjects and formats. Prerequisite: Required minimum reading placement score: COMPASS 80, ASSET 40. Required minimum writing placement score: COMPASS 76, ASSET 40. (SFCC)

#### INTDS 106 - Sketching Techniques (4 cr)

Students learn to effectively communicate ideas through quick sketching visual formats. Instruction includes a wide variety of approaches to sketching techniques, working from simple to complex subject matter including still life's, interiors and the human form. (SFCC)

#### INTDS 107 - Rendering Techniques (4 cr)

Rendering Techniques exposes students to different media and teaches them to accurately represent various subject matter in complex illustrations. The class places heavy emphasis on developing close observation skills, translating observations into a loose rendering style and a bold, creative approach to mixed media rendering styles. Prerequisite: GRDSN 105, INTDS 106 or permission of instructor. (SFCC)

#### INTDS 170 - Elements of Interior Design (5 cr)

Examination of basic design principles and elements used in interior space design. Study of the use of contemporary spaces, furnishings and accessories based on integration of color, light, line, balance, texture and form. Prerequisite: Required minimum reading placement score: COMPASS 80, ASSET 40. Required minimum writing placement score: COMPASS 76, ASSET 40. (SFCC)

#### INTDS 171 - Interior Design Studio I (6 cr)

Students in this course study how to apply design principles to space planning in addition to functional and aesthetic analysis of interior components. Students learn to complete a series of practical residential design problems, including social and private spaces. Activities include how to measure and draw actual spaces, and selection and incorporation of architectural materials and furniture as integral design components. Students begin to build a selection of interior projects for their portfolio using professional presentation techniques. Prerequisite: INTDS 184, 187 or permission of instructor. (SFCC)

#### INTDS 172 - Interior Design Studio II (6 cr)

This course builds on knowledge gained in INTDS 171 by offering more advanced and specific, practical applications of residential environment design. It emphasizes selection of residential interior finishes, design concept development, space planning, problem solving, and functional and aesthetic factors as design components. Freehand drawing and sketching are integral to most projects. Students refine skills in working and design drawings, research methods, and the design process. Projects might include kitchen design, product research, and specification and alternative housing. Prerequisite: INTDS 171 or permission of instructor. (SFCC)

#### INTDS 173 - Architectural Graphics 1 (4 cr)

Fundamentals of mechanical drawing pertaining to interior design; architectural floor plans, symbols, elevations and lettering. Prerequisite: Required minimum reading placement score: COMPASS 80, ASSET 40. Required minimum writing placement score: COMPASS 76, ASSET 40. (SFCC)

#### INTDS 174 – Design Presentation (4 cr)

Design Presentation introduces students to various media techniques and styles in visual presentation of both 2-D and 3-D projects. Students learn to effectively communicate design ideas in the form of written design concepts using design language and appropriate vocabulary. Through a combination of public speaking techniques and creative presentation styles, students learn to effectively present their ideas in front of an audience. Prerequisite: INTDS 107, 184, 187. (SFCC)

#### INTDS 175 – Materials of Interior Design (5 cr)

Definition and application of materials appropriate for use in interiors to include glass, wood, plastics, floor and wall coverings, metals, and building materials. Prerequisite: INTDS 170. (SFCC)

#### INTDS 176 – Special Environments (6 cr)

This course is designed to help students develop knowledge of universal design, barrier-free space requirements and specifications, skill in designing for persons with varying abilities, and an awareness of human needs throughout the life cycle. Learning experiences will include guest speakers, field trips, simulation techniques and teamwork. Students continue to develop and refine skills in sketching, design drawings, research methods, problem solving and design concepts. Students have opportunities to experience and master course information when they are challenged to apply the information to specific projects. Prerequisite: INTDS 172 or permission of instructor. (SFCC)

#### INTDS 179 - History of Interiors I (3 cr)

A survey of types of furniture and interior architectural forms common to various historical periods including antiquity, medieval, Renaissance and eastern styles. Includes researching a project, creating traditional period backgrounds and atmospheres. (SFCC)

#### INTDS 180 - History of Interiors II (3 cr)

A survey of types of furniture and interior architectural forms common to various historical periods, including Baroque, Rococo, Neoclassic and Victorian. Includes researching a project, creating a traditional period background and atmosphere. Prerequisite: INTDS 179 or permission of instructor. (SFCC)

#### INTDS 181 — History of Interiors III (3 cr)

A survey of types of furniture and interior architectural forms common to the Industrial Revolution in England and America, European and American Art Nouveau, Art Deco, the Mission Style, the Bauhaus and International Styles, and the modern movement to the present. Prerequisite: INTDS 180 or permission of instructor. (SFCC)

#### INTDS 184 – Architectural Graphics II (4 cr)

Architectural drafting development includes light frame construction principles and working drawings for a private residence. Additional study includes introduction to computer-aided drafting. Prerequisite: INTDS 173. (SFCC)

#### INTDS 185 – Building Systems for Interior Design (3 cr)

Introduction of specific systems within a building that directly affect the interior environment, systems introduction to include: Structural, mechanical, electrical, building envelope. Additional emphasis to include building codes and basic design considerations for building systems. Content is specifically focused on interior design and how designers would interface with other design consultants. Prerequisite: INTDS 171 and concurrent enrollment in INTDS 172, 186. (SFCC)

#### INTDS 186 - Lighting Design (3 cr)

This course covers the study of lighting design and application in both residential and commercial interiors. Includes practical problem solving and reflected ceiling plans. Prerequisite: INTDS 171. (SFCC)

#### INTDS 187 – Architectural Graphics III (4 cr)

This course focuses on 3 dimensional volume exploration through the use of different methods of graphically depicting the space. Instruction is provided in the fundamentals of perspective drawing, paraline drawing, and isometric drawing. Additionally, students will learn techniques in model building as a design and presentation tool. Prerequisite: INTDS 184. (SFCC)

#### INTDS 189 - Special Topics (3 cr)

This course focuses on a topic currently relevant to the field of interior design as a supplement to existing program courses. Course content varies depending on topic and number of credits offered. Areas students explore may include historic preservation, community service and educational/ cultural tours. Course may be repeated for credit with different topics. Prerequisite: INTDS 170. (SFCC)

#### INTDS 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

**INTDS 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SFCC)

#### 210 INTDS 268 – Design Portfolio (3 cr)

This course examines how design communication relates to client presentation. It focuses on portfolio and interviewing skills for professional presentation. Students develop creative portfolios that capture their capabilities as well as their personal and design philosophy, in a medium of their choice. Prerequisite: INTDS 282; INTDS 286 or instructor permission and concurrent enrollment in INTDS 266; INTDS 267 or instructor permission. (SFCC)

#### INTDS 275 – Professional Practices (3 cr)

Students learn personal goal setting, how to establish a business plan, types of business formations, resources of advice and counsel, and how to establish an interior design practice. (SFCC)

#### INTDS 280 - Textiles for Interiors (5 cr)

The selection, use and care of textile fabrics for interiors based on the study of fibers, fabric construction, specific finishes and properties; emphasis on designer selection and specification of fabrics for window treatments, upholstering furniture, floor coverings and accessories. Prerequisite: ART 105 and INTDS 170 or permission of instructor. (SFCC)

#### INTDS 281 – Commercial Design Studio I (6 cr)

Students learn the practical problem-solving techniques used in the design of commercial and public spaces. Commercial design materials and specifications are surveyed and applied to a series of interior projects requiring research, teamwork and professional presentation. Projects may include reception areas, hospitality, small office, healthcare and retail establishments. Actual projects are used as they become available. Prerequisite: INTDS 176, GPA 2.0 and faculty evaluation. (SFCC)

#### INTDS 282 – Commercial Design Studio II (6 cr)

Students are involved with advanced work in contract and institutional design problems including research projects. Lectures are used to discuss project programming and to synthesize information gained in INTDS 281. Projects may include various international commercial spaces, hospitality and healthcare environments. Actual design projects are used when practical. Prerequisite: INTDS 281 or permission of instructor. (SFCC)

#### INTDS 285 - Computer Aided Design I (4 cr)

Introduction to the basic CAD skills needed to complete 2 dimensional drawings using computer aided design software. Students will learn to navigate the graphic interface and complete floor plans, furniture plans, reflected ceiling plans, and interior elevations using industry specific software and principles. Prerequisite: INTDS 172 and concurrent enrollment in INTDS 176. (SFCC)

#### INTDS 286 - Computer Aided Design II (4 cr)

This course builds on the skills learned in INTDS 285 and introduces more advanced design and drafting operations including 3-D design drawing using AUTOCAD. Prerequisite: INTDS 285. (SFCC)

#### INTDS 287 – Digital Interior Design Technology (4 cr)

This course provides a working knowledge of some of the digital design computer technology used today in the interior design industry. Through practice exercises and applications, students learn the basics of digital design programs including 3D, AutoCAD and Photoshop. Course work culminates in a final project that integrates photographs, AutoCAD drawings and other images and elements using features from each of the learned digital programs. Prerequisite: Minimum of one quarter of AutoCAD within the previous one to two years. Familiarity with the Windows environment and understanding of mouse functionality (basic AutoCAD drawing and edit commands). Basic understanding of how to specify furniture. Ability to efficiently read a floor plan. Basic understanding and familiarity with Photoshop. (SFCC)

#### INTDS 295 - International Design (5 cr)

Students gain first-hand experience with and exposure to the art, history, interior design and culture of a foreign country. Students participate in guided visits to museums, monuments and specially organized discipline-specific sites. This class involves a 10-15 day tour of the designated foreign country and offers a multi-faceted exposure to its culture. (SFCC)

#### **INTERPRETER TRAINING PROGRAM**

#### HSEAR 106 – Introduction to Deaf Culture (5 cr)

Overview of deaf culture, different types of hearing losses and their effects on the functioning and status of the deaf individual (psychological, educational and social). Hearing aids and their function and limitations are introduced along with various modes of communication used by deaf people. Prerequisite: Recommended minimum reading placement scores: Compass 80, Asset 40. (SFCC)

#### HSEAR 128 – Signing Exact English I (2 cr)

Skills in the new sign systems as used in various educational programs such as manual English and the SEE system are taught. Prerequisite: May be taken with ASL& 121. (SFCC)

#### HSEAR 129 – Signing Exact English II (2 cr)

Skill building, vocabulary development and theory of new sign systems are taught. Prerequisite: HSEAR 128. (SFCC)

#### HSEAR 151 – Education of the Hearing Impaired (5 cr)

Current specialized techniques of education for the hearing impaired as they are practiced, as well as the principles and theories underlying those practices. Special emphasis is given to the Signing Exact English (SEE II) system of Manually Coded English, along with the practice and rationale for its use in a total communication setting. Prerequisite: ASL& 123 or demonstrated competency. Recommended minimum reading placement scores: Compass 80, Asset 40. (SFCC)

#### HSEAR 154 - Introduction to Interpreting (5 cr)

Major issues that confront counselors and social workers in programs that are providing services to deaf people. The code of ethics for interpreters is introduced and ethical situations are discussed. Prerequisite: Recommended minimum reading placement scores: Compass 80, Asset 40. (SFCC)

#### HSEAR 201 - Voicing (5 cr)

Students develop comprehension skills in understanding of various signed messages of deaf persons. As a result of developing comprehension skills, students will be able to apply various tools to the voicing task of any signed messages by a deaf person. Prerequisite: ASL& 123 or demonstrated competency. (SFCC)

#### HSEAR 202 — Transliterating I (5 cr)

Students develop skills that will apply to various types of educational situations. Students develop skills in using conceptual signing, and developing knowledge and skill in using educational terminology. Students have the opportunity to practice transliterating in general areas of educational and community topics. Emphasis is placed on developing skill in transliterating from English to signed English. Prerequisite: HSEAR 251 or demonstrated competency. (SFCC)

#### HSEAR 203 – Transliterating II (5 cr)

Students refine the various skill components of transliterating that prepare them for transliterating tasks in the educational environment. Emphasis is placed on developing knowledge and skill in the specific subject areas found in educational environments such as science, math, social services and technical fields. Emphasis is placed on appropriate signing of various technical vocabularies presented at a rate of 120 wpm in the classroom. Prerequisite: HSEAR 202 or demonstrated competency. (SFCC)

#### HSEAR 251 — ASL Interpreting I (5 cr)

Students learn the various models of interpreting in the field and apply the listening skills necessary to successful ASL interpreting. Areas to be covered in this course are use of space, 4 Ws and 1 H theory of interpreting from English to ASL. Students have the opportunity to practice various topics that will be applied to community and platform type of interpreting. Prerequisite: ASL& 123 or demonstrated competency. (SFCC)

#### HSEAR 252 - ASL Interpreting II (5 cr)

Students utilize prior skills and apply these to specific types of situations that may arise in the community. Topics covered are medical interpreting, legal interpreting and social service interpreting. As a result of this course, students are prepared to go into the community to interpret for various types of situations and deaf people they are likely to encounter. Prerequisite: HSEAR 251 or demonstrated competency. (SFCC)

#### HSEAR 253 - ASL Interpreting III (5 cr)

Students combine the skills of voicing from ASL and interpreting into ASL as they practice in-depth the areas of one-to-one interpreting that they are likely to encounter in the community. Students are exposed to persons whose skills vary from minimal competency to signed English and are expected to practice and use in a professional manner the ASL interpreting skills needed in one-to-one situations. Areas to be covered include medical interpreting, legal interpreting, social service interpreting, mental health interpreting and other community-type interpreting. Prerequisite: HSEAR 252 or demonstrated competency. (SFCC)

#### HSEAR 268 – Seminar on Deafness (3 cr)

Discussion of topics of current interest and importance as reflected in current literature and periodicals. (SFCC)

#### HSEAR 281 — Interpreting Practicum I (1-5 cr)

Students are placed in a specific site where the skills and knowledge gained in the classroom are applied. Students are expected to accumulate 26-130 hours of actual practicum experience that prepare them to move into real working situations upon graduation. Students meet once a week for one hour to discuss problems, vocabulary and situations encountered in the practicum experience. Prerequisite: HSEAR 202. (SFCC)

See program/course abbreviation key on page 143.

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#### HSEAR 282 — Interpreting Practicum II (1-5 cr)

Students develop in-depth skills in both interpreting and transliterating by being placed at sites where they develop their specialty. Students further sharpen their skills in articulating knowledge and understanding of interpreting in their chosen areas. For example, students wishing to develop more skill in transliterating at the elementary, junior high and high school level will be placed in those sites to refine their skills in that area. Prerequisite: HSEAR 202, 281. (SFCC)

#### ITP 104 - Introduction to Audiologic Rehabilitation/Habilitation (4 cr)

This course introduces the anatomy of the ear, the functions of the parts of the ear, types and function of hearing assistive devices. It is designed to furnish students with a basic understanding of the physiology, mechanics and the impact of hearing loss as well the habilitation/rehabilitation process. Prerequisite: Concurrent enrollment in ASL& 121. (SFCC)

#### ITP 231 – Theories of Discourse Analysis (2 cr)

This course will provide an introduction to discourse analysis as practiced by working interpreters. The primary focus will be to distinguish between different discourse analysis models and apply their ideas to the study and use of American Sign Language. Students will also be introduced to finding meaning, using appropriate ASL syntax, and how to use visualization and mind mapping for determining source message and constructing a target message. Prerequisite: ASL& 123 and concurrent enrollment in ASL& 221, ITP 241. (SFCC)

#### ITP 232 – ASL Linguistic Principles (3 cr)

This course will apply linguistic theories to American Sign Language. You will learn of the different linguistic theories and how they apply to the field of ASL. Prerequisite: ASL & 221, ITP 231, 241 and concurrent enrollment in ASL& 222, ITP 242. (SFCC)

#### ITP 233 – Manually Coded English Systems (5 cr)

This course is designed to introduce various systems of Manually Coded English (MCE) created for working with D/deaf and hard of hearing children, including the Rochester Method, Seeing Exact English (SEE-I), Signing Exact English (SEE-II), Cued Speech, Linguistics of Visual English (LOVE), and Conceptually Accurate Signed English (CASE). The primary focus will be to build vocabulary, receptive and expressive skills, and employ English grammatical structure using Signing Exact English (SEE-II). This course introduces approximately 400 vocabulary words as well as the affixes, contractions and prefixes used in SEE-II. Prerequisite: ASL& 222, ITP 232, 242 and concurrent enrollment in ASL& 223, ITP 243. (SFCC)

#### ITP 241 – Deaf Social and Cultural Issues (5 cr)

This course is designed to provide an in-depth look at various aspects of Deaf Culture which were overviewed in ASL & 121, 122 and 123. Language, history, legal issues, cultural conflicts, and reflective views of cultural aspects of the Deaf community will be presented. Previously learned aspects of Deaf Culture will be expanded. Prerequisite: ASL & 123 and concurrent enrollment in ASL& 221, ITP 231. (SFCC)

#### ITP 242 – Ethics of Interpreting I (2 cr)

This is an introductory course in ethics as it pertains to the field of interpreting. This 2 credit course incorporates the definitions of human rights, ethics, and morals, and the RID/NAD Code of Professional Conduct as applied to educational interpreters. Prerequisite: ASL& 221, ITP 231, 241 and concurrent enrollment in ASL& 222, ITP 232. (SFCC)

#### ITP 243 – Educational Interpreting (2 cr)

This 2 credit course discusses the role and considerations for an interpreter in educational settings. In this course, the student will experience application of the Code of Professional Conduct and the ethical considerations discussed in previous courses. Students will consider specific situations, such as Deaf/hard-of-hearing children with minimal language skills, with sight challenges, with Cochlear Implants and/or with other disabilities. Prerequisite: ASL& 222, ITP 232, 242 and concurrent enrollment in ASL& 223, ITP 233. (SFCC)

#### ITP 244 – Ethics of Interpreting II (3 cr)

This is the second course in a series of three courses designed to focus on ethical procedures and practices specifically applied to educational interpreting. This course covers specifically the Educational Hierarchy (Pyramids of Responsibility). Prerequisite: ASL& 223, ITP 233, 243 and concurrent enrollment in ITP 251, 261, 281. (SFCC)

#### ITP 245 – Advanced Ethics (2 cr)

This is the final course in a series of three courses dealing with ethics and ethical procedures for educational interpreters. Actual practicum experiences and virtual experiences will be used for discussion materials. Ethics and research will be described as well as use of ethics in the "everyday" environment. Prerequisite: ITP 252, 262, 282 and concurrent enrollment in ITP 253, 263, 283. (SFCC)

#### ITP 251 — Interpreting I (5 cr)

This course is designed to prepare the student with skills to receive information auditorally or visually and express that information in an equivalent message effectively, including affect, mood and inflection, using simultaneous interpreting methodologies. Prerequisite: ASL& 223, ITP 233, 243 and concurrent enrollment in ITP 244, 261, 281. (SFCC)

#### ITP 252 — Interpreting II (5 cr)

This course is designed to continue your preparation for exiting into an educational setting to work as an interpreter. You will continue to develop sign vocabulary appropriate for specific educational experiences, enhance receptive and expressive skills and work on speed and accuracy. You will learn to incorporate mime, physical movement, and ASL non-manual markers to assist in conveying meaning. Prerequisite: ITP 244, 251, 261, 281 and concurrent enrollment in ITP 262, 282. (SFCC)

#### ITP 253 — Interpreting III (5 cr)

In this course, you will apply simultaneous interpreting skills so as to receive visual discourse and verbally gloss information effectively, including affect, mood, and inflection; receive auditory information and express the information in equivalent appropriate ASL information, including affect, mood and inflection. You will enhance your skills in use of non-manual markers to convey auditory meaning. Prerequisite: ITP 252, 262, 282 and concurrent enrollment in ITP 245, 263, 283. (SFCC)

#### ITP 261 — Transliteration I (5 cr)

This course is designed to introduce transliterating and distinguishing between interpreting and transliterating. Students will work on sign-tovoice and voice-to-sign skills, increase vocabulary both expressively and receptively, and increase and improve grammar skills in consecutive transliterating. Prerequisite: ASL& 223, ITP 233, 243 and concurrent enrollment in ITP 244, 251, 261. (SFCC)

#### ITP 262 — Transliteration II (5 cr)

In this course, students will increase vocabulary, enhance receptive and expressive skills and improve speed and accuracy in voice-to-sign and signto-voice transliterating using simultaneous methodologies. Student will receive and express information effectively, using affect, mood and inflection to match the target language to the source language. Prerequisite: ITP 251, 261, 281 and concurrent enrollment in ITP 252, 282. (SFCC)

#### ITP 263 - Transliteration III (5 cr)

This course is designed to prepare student for exiting into the community to work as a transliterator in educational settings. Students will receive information in verbal and/or signed form and use appropriate transliteration procedures to relay the information, matching register, intention and content. Students will demonstrate appropriate switching techniques for both sign-to-voice and voice-to-sign, adhering to the Interpreter's Code of Professional Conduct. Prerequisite: ITP 252, 262, 282 and concurrent enrollment in ITP 245, 253, 283. (SFCC)

#### ITP 281 — Applied Interpreting I (1 cr)

First of three separate opportunities to apply interpreting/transliterating skills. This first course requires observation and voice-to-sign or sign-tovoice in a mock interpreting environment where no Deaf people will be present. The goals of this course are to strengthen stamina in interpreting, predicting skills, and ability to stay within the interpreter's Code of Professional Conduct. Prerequisite: ASL& 223, ITP 233, 243 and concurrent enrollment in ITP 244, 251, 261. (SFCC)

#### ITP 282 — Applied Interpreting II (2 cr)

This second applied interpreting experience requires experience in the following categories: Observation and voice-to-sign and/or sign-to-voice in an interpreting environment in the public arena where no Deaf people will be present. Prerequisite: ASL& 123, ITP 244, 251, 261, 281 and concurrent enrollment in ITP 252, 262. (SFCC)

#### ITP 283 — Applied Interpreting III (3 cr)

This is the third practicum and requires experience in the following categories: Observation and voice-to-sign and/or sign-to-voice interpreting/ transliterating in an educational environment. Students will be placed in a school program under the supervision of an experienced interpreter/ transliterator. Prerequisite: ITP 252, 262, 282 and concurrent enrollment in ITP 245, 253, 263. (SFCC)

#### INVASIVE CARDIOVASCULAR TECHNOLOGY

#### ICT 114 – Introduction to Cardiac Care (3 cr)

Introduction to the field of CardiovascularTechnology and the role of the CV Technologist. Stresses the importance of professionalism, ethical behavior, and communications. Introductory study of medical terminology as related to cardiac care. Various discussion groups and tours will be provided. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 115 – Technical Skills - CPR for Health Care Providers (1 cr)

American Heart Association version of health care provider course for CPR/ AED. Required for student to enter a patient care clinical environment. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 116 – Acute Coronary Syndrome (1 cr)

A study of the nations number one killer in its acute phase. Pathophysiology of atherosclerosis. The stable versus the unstable patient. Vulnerable plaque types. STEMI versus NSTEMI patient presentations. The national door to balloon initiative. 12 lead EKG recognition of the signs of ischemia/ infarct patterns. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 117 – Cardiovascular Pharm 1 (1 cr)

Introduction to cardiovascular pharmacology. A review of control of heart rate, blood pressure, and cardiac output and the common drug groups employed to manipulate these parameters. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 124 – CV Diagnostic Exams (4 cr)

A review of the examinations used today to screen for coronary artery disease. Case studies will be presented from the patient initial presentation through diagnostic workup. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 125 – Hemodynamics (2 cr)

Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 126 – Technical Skills/Reading Hemodynamics (1 cr)

Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in ICT 125. Prerequisite: Permission of instructor or permission of instructor. (SCC)

#### ICT 127 - Cardiovascular Pharm 2 (1 cr)

Continuation of ICT 117 Intro to CV Pharm. Advanced Cardiac Life Support drugs are introduced. Pharmacy math is introduced. Pharmacy law is studied. Principles of IV therapy are introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 128 – Technical Skills/Pharmacology (1 cr)

Supports ICT 127 concepts. Case studies of patients during cardiac emergencies will be evaluated for appropriate drug selection. Pharmacy math calculations will be taught. IV therapy techniques will be taught. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 129 - CPR Instructor (1 cr)

American Heart Association CPR Instructor course. Participants will review CPR for Health Care Providers and learn methods to teach the class. Must have a valid HCP card. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 134 - Cath Lab Procedures (3 cr)

This course is an overview of cardiovascular invasive diagnosis and intervention. Includes an introduction to the cardiac catheterization lab through the study of: Catheterization protocols and equipment. Angiographic anatomy of the cardiovascular system, and invasive cardiac measurements and calculations. Labs and tours will be provided. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 135 – Technical Skills Cath Lab Procedures (1 cr)

This is the lab supporting ICT 134. Skills taught will be procedural tables and equipment used in cardiac catheterization. Simulations of vascular access techniques and cannulation of model vascular systems will be utilized. Computer analysis of recorded hemodynamic parameters will be introduced by use of a physiologic monitor. Injector system parameters will be taught. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 138 – Cardiovascular Physiology (4 cr)

This course is an advanced study of normal cardiovascular physiology presented in a series of physician lectures and lab demonstrations with applications in invasive and noninvasive cardiology. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 139 - Radiation Safety (2 cr)

A study of radiation production and safety measures for health care providers. This class will prepare the student to work in the fluoroscopic and cine imaging environment of the cardiac catheterization laboratory. Patient and staff exposure protection are emphasized. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 140 – Surgical Asepsis (1 cr)

Surgical asepsis for health care providers. This class will prepare the student to create a sterile field. Gown and glove themselves and others. Procedural awareness of working in a sterile field will be developed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 141 – Technical Skills/Surgical Asepsis (1 cr)

This class supports ICT 140. The skills of surgical asepsis and infection control are taught. Working in a sterile field and gowning and gloving are taught. Develop a surgical conscience. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 144 – Patient Care and Assessment (4 cr)

Develop patient care skills specific to patients with cardiovascular disease. Read a medical chart to identify risks for invasive procedures. Understand the expected response of the physician to various patient presentations. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 145 – Technical Skills/Cath Lab Boot Camp/Patient Care (4 cr)

This class prepares the student to enter the clinical environment of the cardiac catheterization laboratory. Patient care skills and procedural steps will be practiced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 146 – Cath Lab Clinical I (6 cr)

Initial clinical experience of 160 clock hours. Focus on diagnostic cardiac catheterization procedural participation. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 214 - Cardiac Interventions/PCI (3 cr)

This course will focus on the percutaneous interventions performed in today's cardiac cath lab. Including, but not limited to: Stenting, balloon angioplasty, intravascular ultrasound, atherectomy, thrombectomy, ocular coherence tomography, and other techniques. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 215 – Non Cardiac Vascular (Special) Procedures 1 (2 cr)

This class will explore the cardiovascular diagnostic and interventions in non-cardiac vascular beds. This field is known as "Special Procedures" or Interventional Radiology. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 216 – Electrophysiology 1 Introduction To Devices (2 cr)

This class will introduce the sub-specialty of electrophysiology (EP), this is the first of 2 classes. In this class we will investigate the role of EP in cardiology. A study of diagnostic protocols and implantable devices like pacers and defibrillators will be introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 217 – Technical Skills/PCI/EP/Special Equipment (2 cr)

This skills lab supports the ICT 214, 215 and 216 didactic content. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 218 - Cath Lab Clinical II (5 cr)

This course continues to develop the skills from Cath Lab Clinical I. Students move into more complex procedures, such as percutaneous coronary interventions. Including, but not limited to: Stents, balloon angioplasty, intracoronary ultrasound. Monitor, scrub and circulator roles should be practiced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 224 — Advanced Practices/Management (5 cr)

This class will focus on advanced practices such as left ventricular assist devices and support of cardiovascular surgery. Another aspect of this class will be to define the operational structure of the health care facility. For profit/not for profit hospitals will be studied. Private physician laboratory management models will be defined. Hospital chain of command will be defined. The emphasis will be for the student to understand and excel in multiple working environments. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 225 – Pediatric Cath (1 cr)

The role of the cath lab in caring for patients with cardiac congenital anomalies will be explored. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 226 - Statistics and Research (1 cr)

Introduction to the medical research protocols and the FDA approval process for drugs and devices. A review of statistics as utilized in medical research. Evaluation of the meaning of scientific reports. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 227 – Electrophysiology 2 Interventions (2 cr)

This class is a continuation of ICT 216 Introduction to EP. EP lab interventions for treatment of cardiac arrhythmias are discussed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 228 – Technical Skills/Peds/Statistical Analysis/EP (2 cr)

This class supports the didactic content of ICT 224, 225, 226 and 227. Technical skills in the areas of cardiac assist devices, pediatric interventional devices, EP interventional devices. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 229 - Cath Lab Clinical III (5 cr)

This course continues to develop the skills from Cath Lab Clinical II. Students move into more complex procedures and coronary interventions. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 234 - Board Registry (RCIS) Prep Blackboard (4 cr)

This class will prepare the student to sit for the national registry appropriate for work in the cardiac cath lab. This being the RCIS (Registered Cardiovascular Invasive Specialist) registry offered by CCI (Cardiovascular Credentialing International). Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### ICT 235 - Cath Lab Clinical IV (12 cr)

This course continues to develop the skills from Cath lab Clinical III. Students move into more complex procedures and coronary interventions. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### JAPANESE

#### JAPN& 121 – Japanese I (5 cr)

Elementary Japanese is an introduction to Japanese language; conversation, composition, grammar and written Japanese. Discussion of culture and traditions. (SCC, SFCC)

#### JAPN& 122 – Japanese II (5 cr)

Elementary Japanese is an introduction to Japanese language; conversation, composition, grammar and written Japanese. Discussion of culture and traditions. Prerequisite: JAPN& 121 or permission of instructor. (SCC, SFCC)

#### JAPN& 123 – Japanese III (5 cr)

Elementary Japanese is an introduction to Japanese language; conversation, composition, grammar and written Japanese. Discussion of culture and traditions. Prerequisite: JAPN& 122 or permission of instructor. (SCC, SFCC)

#### JAPN& 221 – Japanese IV (5 cr)

Students increase their fluency and listening comprehension, master 200 kanjis and their "on" and "kun" readings, and learn to read short articles in newspapers and magazines. Prerequisite: JAPN& 123 or permission of instructor. (SCC, SFCC)

#### JAPN& 222 – Japanese V (5 cr)

Students increase their fluency and listening comprehension, master 200 kanjis and their "on" and "kun" readings, and learn to read short articles in newspapers and magazines. Prerequisite: JAPN& 221 or permission of instructor. (SCC, SFCC)

#### JAPN& 223 – Japanese VI (5 cr)

Students increase their fluency and listening comprehension, master 200 kanjis and their "on" and "kun" readings, and learn to read short articles in newspapers and magazines. Prerequisite: JAPN& 222 or permission of instructor. (SCC, SFCC)

#### JAPN 241 – Japanese Conversation and Culture (2 cr)

This is a conversation and culture course that is aimed at students who want to build on their current knowledge of Japanese culture and increase their confidence in communicating at an intermediate level. Students will practice speaking, listening, acquire practical proficiency. This course also familiarizes students with basic oral communication skills with an emphasis on idiomatic expressions, basic grammar and vocabulary to develop functional language skills. Repeatable up to four credits. Prerequisite: Two years of high school level Japanese, equivalent; JAPN& 121, 122. (SFCC)

#### JAPN 267 – Cooperative Education Work Experience (1-18 cr) For course description, see Cooperative Education. (SFCC)

#### JOURNALISM

#### JOURN 100 – Introduction to Broadcasting (5 cr)

A survey of radio, television and cable communications will be addressed in this course. Content includes the history of the media; organization, structure and regulation of the industry; commercial and educational broadcasting; programming; advertising; audience standards of criticism; and new technologies. (SFCC)

#### JOURN 101 – College Newspaper Production I (3-5 cr)

Gain practical writing, layout and publishing experience by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. (SCC, SFCC)

#### JOURN 102 – College Newspaper Production II (3-5 cr)

This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 101 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. Prerequisite: Must have earned at least a 2.0 or better in JOURN 101. (SCC, SFCC)

#### JOURN 103 – College Newspaper Production III (3-5 cr)

This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 102 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. Prerequisite: Must have earned at least a 2.0 or better in JOURN 102. (SCC, SFCC)

#### JOURN 105 – Computerized Layout and Design for Journalists (2 cr)

This course offers instruction in the use of PageMaker for newsletter or newspaper layout, Adobe Photoshop for scanning photographs and artwork, and CorelDraw for graphics. (SCC)

#### JOURN 110 – Mass Media (5 cr)

The study of the mass media. The major goals of the course are to give students an objective, thoughtful view of the mass media so that they better understand the impact the media has on us. It is a survey course that studies newspapers, advertising and television, in addition to a less detailed study of radio, film, and the other forms and issues of mass media. Prerequisite: SFCC only: Recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### JOURN 201 – College Newspaper Production IV (3-5 cr)

This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 103 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. It is strongly recommended that a student have completed JOURN 220 before registering for this course. Prerequisite: Must have earned at least a 2.0 or better in JOURN 103. (SCC, SFCC)

#### JOURN 202 – College Newspaper Production V (3-5 cr)

This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 201 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. It is strongly recommended that a student have completed JOURN 220 before registering for this course. Prerequisite: Must have earned at least a 2.0 or better in JOURN 201. (SCC, SFCC)

#### JOURN 203 – College Newspaper Production VI (3-5 cr)

This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 202 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. It is strongly recommended that a student have completed JOURN 220 before registering for this course. Prerequisite: Must have earned at least a 2.0 or better in JOURN 202. (SCC, SFCC)

#### JOURN 220 – Introduction to News Writing (5 cr)

The emphasis of this course is on writing clear, concise articles for print or broadcast media. Students learn the basic techniques of organizing news and feature articles. In addition, interviewing skills, note taking and copy reading are stressed. (SCC, SFCC)

#### JOURN 224 – Advanced News Reporting (5 cr)

This course is designed for students who wish to further refine the skills developed in JOURN 220. Students will focus on column/editorial writing, advanced feature writing, computer-assisted reporting and Associated Press writing style. This will be very writing-intensive course, focusing on both long-form and short-form storytelling techniques used in newspapers, magazines and the web. Prerequisite: 2.0 or better in JOURN 220 or permission of instructor. (SFCC)

#### JOURN 225 – Multimedia Journalism (5 cr)

This course introduces students to the fundamentals of storytelling in non-print media. By building on the basic newsgathering, interviewing and storytelling skills developed in JOURN 220, students will explore how various media can be employed to help reach disparate audiences in new and innovative ways. Prerequisite: JOURN 220. (SFCC)

#### JOURN 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

**JOURN 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SCC, SFCC)

#### LEGAL ADMINISTRATIVE ASSISTANT

#### LSEC 216 - Legal Office Procedures (5 cr)

Students are introduced to the role of lawyers and law office staff in today's legal environment. Students develop and improve skills in maintaining trust accounts, time slips, docket control, law library management, the use of the Uniform System of Citations as a reference tool for legal citations, notary public requirements, trial preparation, law office management, collections and garnishments, courthouse procedures, confidentiality requirements, and positive human relations techniques. Critical thinking skills are addressed. Prerequisite: LSEC 239 or 249 and enrollment in the legal administrative assistant program. (SCC)

#### LSEC 233 – Legal Office Practice (5 cr)

Students study the integration of decision-making with legal office procedures and skills in the areas of contracts, business organizations, real estate, estates and guardianships, and bankruptcy. This course includes five hours of lecture and seven hours of skill development, two of which are arranged. Prerequisite: BT 109 and LSEC 239, and 244 with a 2.0 grade or better, or permission of instructor. (SCC)

#### LSEC 236 – Legal Terminology (5 cr)

Students learn legal terminology and study ethics, the court system, wills, probates and guardianships, partnerships and corporations, real estate and landlord/tenant law. Prerequisite: Enrolled in the legal administrative assistant program or permission of instructor. (SCC)

#### LSEC 237 - Legal Terminology (5 cr)

Students learn legal terminology and study litigation, torts, contracts, criminal law, family law, community property, adoptions, change of name and bankruptcy. Prerequisite: Enrolled in the legal administrative assistant program or permission of instructor. (SCC)

#### LSEC 239 – Legal Formatting (5 cr)

Students develop skills on personal computers, competencies in the production of legal documents used in law-related offices and courts, and critical thinking skills in legal applications. Prerequisite: Keyboarding skills of 40 wpm; BT 102 and 165; and BT 109 or ENGL& 101 with a grade of 2.0 or higher or permission of instructor. (SCC)

#### LSEC 244 – Legal Machine Transcription (5 cr)

Students develop proficiency in producing rough draft and usable legal copy from voice transcribers. Prerequisite: BT 235 and LSEC 239 or 249 with a 2.0 grade or better, or permission of instructor. (SCC)

#### LSEC 249 – Legal Formatting Procedures (5 cr)

Advanced legal formatting functions are presented and students develop competencies to produce legal documents used in law-related offices and courses. Students improve their critical thinking skills in legal procedures. Prerequisite: Keyboarding skills of 40 wpm; BT 102 and 165 and BT 109 or ENGL& 101 with a 2.0 higher or permission of instructor. (SCC)

#### LSEC 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

LSEC 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### LSEC 285 – Legal Office Internship (3 cr)

Students apply their office and human relations skills during this two-week internship at a law office or law-related office or court. Sites meet individual needs of students and complement their program. Grading option: Pass/ fail. Prerequisite: Permission of program coordinator. (SCC)

#### LIBRARY AND INFORMATION SERVICES

**LMLIB 100** – **Introduction to Library Organizations and Careers (3 cr)** Students are introduced to the historical, functional, and organizational structure of libraries. Current library services; philosophy, and terminology are emphasized. Students demonstrate knowledge about the role of the library technician as a member of library organizations. Students will explore professional organizations, employment outlook and identify a possible career path. (SFCC)

#### LMLIB 115 - Introduction to Library Organizational Systems (5 cr)

Students learn various systems used to organize and recall library materials with an emphasis on classification systems; filing rules; searching library catalog records; and an introduction to database structure. Prerequisite: Can be taken concurrently with LMLIB 100; or taken in sequence or permission of instructor and concurrent enrollment in LMLIB 100. (SFCC)

#### LMLIB 116 - Introduction to Circulation Systems and Services (5 cr)

Students are introduced to library circulation systems and services by engaging in practical experience using software. Students are introduced to policies associated with circulation services. Prerequisite: Can be taken concurrently with LMLIB 100 and LMLIB 115 or taken in sequence or permission of instructor. (SFCC)

#### LMLIB 117 – Access Services, Customer Service and Collection Maintenance (5 cr)

Students are introduced to common policies and procedures covering access services including: Inter Library Loan, library security issues, and collection maintenance (shelving, binding and book repair). Students also are introduced to customer service issues and best practices in all types of libraries. Prerequisite: LMLIB 116; Must be taken in sequence or permission of instructor. (SFCC)

#### LMLIB 125 – School Libraries and Media Centers (5 cr)

This is an introductory course for students interested in school library and media centers management and materials. An overview of the role and function of school libraries and media centers; information literacy standards and media materials management are presented. (SFCC)

## LMLIB 126 — School Library Technology and Services for Curriculum Support (3 cr)

Students are introduced to the role of the school library in its capacity of providing curricular support in the K-12 setting. Information literacy; emerging technologies in teaching and learning; and outreach and collaboration with school personnel will be explored. (SFCC)

#### LMLIB 135 - Children's Literature and Library Services (5 cr)

Fairy tales and other works emerging from oral tradition, picture books, poetry, juvenile novels, non-fiction and informational books will be evaluated in terms of what they have to offer to children. Students will read and review children's literature and view audio-visual media associated with selected children's stories. Students will create presentations using children's literature and examine library services designed for children. (SFCC)

## LMLIB 210 — Technical Services I: Acquisitions and Materials Processing (5 cr)

Students utilize bibliographic tools and searching techniques commonly used by libraries in identifying materials to be requisitioned; ordering methods; acquisitions procedures; serials management; and materials workflow is examined. Prerequisite: Must be taken in sequence; or permission of instructor. (SFCC)

#### LMLIB 220 - Technical Services II: Cataloging (5 cr)

Students will prepare bibliographic descriptions based on Anglo-American Cataloging Rules, 2nd ed., Revised, with emphasis on cataloging from copy. Some original cataloging is covered also, including assignment of main and added entries, assignment of subject headings and classification numbers and assignment of Cutter numbers. Prerequisite: Must be taken in sequence; or permission of instructor. (SFCC)

#### LMLIB 222 - Reference Services and Outreach (5 cr)

Students examine the function of library technician's role in relation to readers'services and supporting reference services. Students examine programs and outreach services libraries used to reach library users. Prerequisite: Must be taken in sequence; or permission of instructor. (SFCC)

#### LMLIB 224 - Research Topics and Projects in Library Service (1-3 cr)

The course content is designed to meet specific skill levels for individual students. The course content varies depending on research and/or project and the number of credits chosen and established guidelines allow students to research special areas of interest. Students have the opportunity to refine or expand their library technician skills working on an independent project or topic. All research and/or projects must be agreed upon by the instructor and student. Prerequisite: Permission of instructor. (SFCC)

#### LMLIB 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

#### LMLIB 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SFCC)

#### **MACHINIST/CNC TECHNOLOGY**

#### MACH 113 - Beginning Blueprint (2 cr)

Students learn basic blueprint reading with emphasis on the accurate interpretation of blueprints and sketches. Prerequisite: Concurrent enrollment in MACH 114, 115 or permission of instructor. (SCC)

#### MACH 114 – Introduction to Machine Shop I (5 cr)

Students are introduced to the manufacturing processes and the equipment and hardware used to shape and form materials. Practical application includes basic layout techniques, the use of measuring tools and shop safety practices. (SCC)

#### MACH 115 - Introduction to Machine Tools (5 cr)

Students are introduced to the tools, equipment and processes common to a machine shop with emphasis on their proper selection and use. Prerequisite: Concurrent enrollment in MACH 113, 114 or permission of instructor. (SCC)

#### MACH 116 - Introduction to Machine Shop II (5 cr)

This course continues with the applications introduced in MACH 114 emphasizing the manufacturing processes, equipment and hardware used to shape and form materials. Basic layout techniques, the use of measuring tools and shop safety practices are stressed. (SCC)

#### MACH 123 – Machine Tool Operations I (6 cr)

Students are introduced to theory and practical shop experience used in basic machining operations with emphasis on the safe operation of sawing and drilling machines. Prerequisite: MACH 113, 116. (SCC)

#### MACH 124 - Blueprint II (2 cr)

Students learn theory and practical applications in the basics of shop sketching. Basic lines and forms and freehand lettering are emphasized. Prerequisite: MACH 113 and concurrent enrollment in MACH 123, 125 or permission of instructor. (SCC)

#### MACH 125 - Machine Shop Math I (1-2 cr)

Students are introduced to the math principles and applications to machine shop procedures. Emphasis range from the calculation of percentages to practical algebra. Prerequisite: MACH 114 and concurrent enrollment in MACH 123, 124 or permission of instructor. (SCC)

#### MACH 126 - Machine Tool Operations II (7 cr)

This course continues with the concepts introduced in MACH 123. Students acquire practical shop experience in basic machining operations. The safe operation of sawing and drilling machines is emphasized. Prerequisite: MACH 113, 116. (SCC)

#### MACH 133 - Machine Tool Operations III (7 cr)

This course emphasizes the safe operation of lathes and their accessory equipment. Prerequisite: MACH 123, 126. (SCC)

#### MACH 134 – Machine Shop Math II (1-2 cr)

This course continues with the concepts introduced in MACH 125. Geometric construction and basic concepts of trigonometry are emphasized. Prerequisite: MACH 125 and concurrent enrollment in MACH 133, 135 or permission of instructor. (SCC)

#### MACH 135 - Blueprint III (2 cr)

This course continues with the concepts introduced in MACH 113 and 124. Practical experience in the interpretation and generation of special view drawings is emphasized. Prerequisite: MACH 124 and concurrent enrollment in MACH 133, 134 or permission of instructor. (SCC)

#### MACH 136 - Machine Tool Operations IV (7 cr)

This course continues with the concepts introduced in MACH 133. Practical applications in the safe operation of lathes and their accessory equipment are emphasized. Prerequisite: MACH 123, 126. (SCC)

#### MACH 201 – Manufacturing Economics (1 cr)

This course is a study of the principles of manufacturing business economics. Profit, customer satisfaction, labor and industries, costs, value added, unit cost, employee benefits and overhead are emphasized. (SCC)

#### MACH 202 – Manufacturing Resource Management (1 cr)

This course is a study of the principles of manufacturing focusing on production rates, inventory control, budgeting, computer applications and scheduling. (SCC)

#### MACH 243 - Machine Tool Operations V (8 cr)

This course emphasizes practical applications in the safe operation of vertical and horizontal milling machines. Prerequisite: MACH 133, 136. (SCC)

#### MACH 244 — Blueprint IV (2 cr)

This course presents theory and practical applications in the identification of structural steel shapes on blueprints. The generation of dimensioned working sketches of specific parts is emphasized. Prerequisite: MACH 125 and concurrent enrollment in MACH 243 or permission of instructor. (SCC)

#### MACH 246 – Machine Tool Operations VI (5 cr)

This course continues with the concepts introduced in MACH 243. Practical applications in the safe operation of vertical and horizontal milling machines are emphasized. Prerequisite: MACH 133, 136. (SCC)

#### MACH 247 - CNC Theory (5 cr)

Students learn to demonstrate basic competency in CNC programs and the operation of mills and lathes. (SCC)

#### MACH 248 – CNC Lab (7 cr)

This course continues with the concepts introduced in MACH 247 to prepare students to demonstrate basic competency in the manufacturing of CNC programs and the operation of mills and lathes. (SCC)

#### MACH 249 – Quality Control (4 cr)

This course prepares students to demonstrate competency in areas of manufacturing including quality control and part inspection, precision measurements, and the engineers' interpretation of drawings. (SCC)

#### MACH 250 - CNC Production Theory (5 cr)

This course prepares students to demonstrate competency in areas of the manufacturing industry that include basic CNC programming, intermediate CNC milling and turning operations, and CNC production. (SCC)

#### MACH 251 – CNC Production Lab (7 cr)

This course continues with the concepts introduced in MACH 250 preparing students to demonstrate competency in areas of the manufacturing industry that includes basic CNC programming, intermediate CNC milling and turning operations, and CNC production. (SCC)

#### MACH 253 – Machine Tool Operations VII (6 cr)

This course offers advanced applications in gears and gear cutting, and the use of rotary tables and indexing devices. The setup and calculation of machines for cutting are introduced. Prerequisite: MACH 243, 246. (SCC)

#### MACH 254 - Blueprint V (2 cr)

This course introduces practical applications in the generation of multiscale, assembly and detail drawings. Prerequisite: MACH 244 and concurrent enrollment in MACH 253 or permission of instructor. (SCC)

#### MACH 256 - Machine Tool Operations VIII (6 cr)

This course continues with the applications presented in MACH 253 emphasizing advanced applications in gears and gear cutting, and the use of rotary tables and indexing devices. Prerequisite: MACH 243, 246. (SCC)

#### MACH 257 – Computer Aided Machining (2-5 cr)

Students are introduced to the theory and practice of machine processes controlled by computers. Milling center and turning center functions, the role of the computer in controlling machine functions, and basic tool processes and machining practices are emphasized. Prerequisite: Machinist experience or permission of instructor. (SCC)

#### MACH 258 – Advanced Computer Aided Machining (2-5 cr)

This course continues with the concepts introduced in MACH 257 with emphasis on the practical application of producing two-dimensional drawings in computer aided design (CAD), creating a computer aided manufacturing post-process of the drawing, transferring the output to a milling center, and finalizing the practices with a completed machine product from stock materials. Prerequisite: MACH 257 or permission of instructor. (SCC)

#### MACH 261 – CNC Production Applications (6 cr)

This course focuses on modern computer-numeric control (CNC) production techniques common to small and large manufacturers. Students participate in actual production applications on CNC milling and turning centers and the use of self-developed computer programs. (SCC)

#### MACH 262 – CNC Programming (3-6 cr)

Students learn to program CNC machining centers using computer languages common to the industry. (SCC)

#### MACH 263 – Machine Tool Operations IX (7 cr)

Students are introduced to the practical applications in grinding and abrasive machining processes. Prerequisite: MACH 253, 256. (SCC)

#### MACH 264 — Machine Tool Operations X (6 cr)

This course continues with the applications introduced in MACH 263 emphasizing advanced applications in grinding and abrasive machining processes. Prerequisite: MACH 253, 256. (SCC)

#### MACH 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### MACH 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

For course description, see Cooperative Education. (SCC)

#### MACH 295 – Quality Technician (1-10 cr)

Students are introduced to the practical applications in grinding and abrasive machining processes. (SCC)

#### MANAGEMENT

#### MMGT 100 - Supervised Volunteer Experience (1-3 cr)

Approved supervised volunteer community service experience in a nonprofit, government or service organization that teaches students the value of contributing back to the community in which they live and work. Students may receive variable credits for hours of approved supervised experience during a quarter. One credit is given for every 33 hours of volunteer experience documented. Grade option: Pass/fail. (SCC)

#### MMGT 101 - Principles of Management (5 cr)

Fundamental principles of management as applied to business enterprise. Actual business situations are studied by applying basic management principles. Prerequisite: BUS& 101 or permission of instructor. (SCC, SFCC)

#### MMGT 102 - Personal Selling (3 cr)

This course introduces students to the techniques needed to be an effective salesperson. Content areas include the personal selling environment, planning the sales call, negotiating, and confirming and closing sales. (SCC)

#### MMGT 103 – Goal Development (1 cr)

A course designed to teach students the basic principles of goal development. Students are able to apply the principles learned in both a business setting and other situations. (SCC)

#### MMGT 104 - Time Management Techniques (1 cr)

A course designed to teach students the basic principles of time management. Students are able to demonstrate good time management techniques in the business world. (SCC)

#### MMGT 111 – Mid-Management Seminar (1-2 cr)

A conference course for students enrolled in the mid-management program. Emphasis is on experiences and activities designed to practice and develop management qualities and the acceptance of responsibilities. (SFCC)

#### MMGT 112 – Mid-Management Seminar (1-2 cr)

A conference course for students enrolled in the mid-management program. Emphasis is on experiences and activities designed to practice and develop management qualities and the acceptance of responsibilities. (SFCC)

#### MMGT 113 – Mid-Management Seminar (1-2 cr)

A conference course for students enrolled in the mid-management program. Emphasis is on experiences and activities designed to practice and develop management qualities and the acceptance of responsibilities. (SFCC)

#### MMGT 120 - Change and the Team Player (3 cr)

Fundamentals of managing change, encouraging innovation and learning the basics about being a team player are discussed. Clarifying team roles and responsibilities and effectively conducting meetings are explored. Role plays and case studies are addressed by the students. (SFCC)

#### MMGT 121 - Team Leadership Skills (2 cr)

Students learn key criteria regarding team leadership qualities and theories. The art of persuasion, maintaining a positive attitude, building solid working relationships and professionalism are explored. Facing conflict and negotiating skills are addressed and practiced. (SFCC)

#### MMGT 123 - Managing Strategies and Responsibilities (3 cr)

Students learn basic critical thinking skills, how to enhance performance expectations, strategies for managing time and handling stress. Also team decision making, coaching skills and techniques for problem-solving situations with facilitated problem-solving sessions are practiced. (SFCC)

#### MMGT 181 – Leadership Training-DEC (1-5 cr)

Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC, SFCC)

#### MMGT 182 — Leadership Training-DEC (1-5 cr)

Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC, SFCC)

#### MMGT 183 – Leadership Training-DEC (1-5 cr)

Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC, SFCC)

#### MMGT 191 – Leadership Training-DEC (1-5 cr)

Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC, SFCC)

#### MMGT 192 – Leadership Training-DEC (1-5 cr)

Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC, SFCC)

#### MMGT 193 - Leadership Training-DEC (1-5 cr)

Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC, SFCC)

#### MMGT 205 – Small Business Planning (5 cr)

The preparation of a small business plan for starting a small business. The plan will include business description, characteristics of the entrepreneur and the business planner, ownership, analysis of the industry, target customers and location, start-up costs, financial projections, and necessary licenses. The design of the course is to have a document to present to a possible lender or investor. (SCC)

#### MMGT 211 – Marketing (5 cr)

Introduction to the field of merchandise marketing; distribution of goods and services from producer to consumer and the place of marketing in our economy. Prerequisite: BUS& 101 or permission of instructor. (SCC, SFCC)

#### MMGT 212 – Retailing (5 cr)

Fundamentals of retailing including retail store operation, organization, merchandise management, sales promotion, customer relations and control. Prerequisite: BUS& 101 or permission of instructor. (SCC)

#### MMGT 218 - Fundamentals of Advertising (5 cr)

Introduction to the field of advertising: Planning, directing and coordinating advertising functions as a tool of marketing. Prerequisite: SCC only: BUS& 101 or permission of instructor. (SCC, SFCC)

#### MMGT 220 – Professional Sales (3 cr)

Introduction to the principles and techniques of sales promotion. Develop an understanding of factors and personality necessary for professional sales. (SFCC)

#### MMGT 221 – Presentation Skill Building (1 cr)

Development of basic skills in preparing and presenting short, prepared and impromptu speeches. Emphasis is given to poise and improved confidence in front of the public. Grading option: Pass/fail. (SFCC)

#### MMGT 223 — Customer Service (3 cr)

This course focuses on creating and maintaining positive customer relations. Efficient and effective ways to deliver quality service and products are presented. Projecting a professional image, communicating with customers and handling complaints effectively, maintaining time management, and working with culturally diverse clients are emphasized. (SCC, SFCC)

#### MMGT 231 – Human Resource Management (5 cr)

Techniques and principles of personnel supervision and administration including employee recruitment, job analysis, affirmative action, labor relations, compensation, performance appraisal, interviewing, motivation, training and development, and employee health and safety. (SCC, SFCC)

#### MMGT 232 - Project Leadership (5 cr)

The course introduces current leadership and teambuilding theories and builds the skills, needed to successfully lead others in various organizational contexts and in project management environment. The focus is on facilitating students' awareness of their own competencies as leaders and team members through completion of self assessment activities, interactive discussions and analyses of cases, simulations, general discussion and experiential learning. (SCC)

#### MMGT 240 - Management Information Systems (5 cr)

This course explores the information revolution in business. It focuses on the Internet and global communications, the globalization of markets, and the management of information systems. Prerequisite: CIS 110. (SCC)

#### MMGT 242 - Project Management (2.5 cr)

Examines project management theory and practices from a managerial perspective. Students define a project, create project objectives, determine resource requirements and create a project plan and schedule. Students will implement the concepts, tools and skills developed in this course while they successfully complete a business project. Prerequisite: Concurrent enrollment in CATT 241. (SCC)

#### MMGT 243 – Fundamentals of Project Management (5 cr)

Project management is an effective method for executing and completing projects on time and within budget. Students will gain a working knowledge of the fundamentals of project management and be able to immediately use that knowledge to effectively manage work projects. This course introduces the concepts and methods required for creating a plan and effectively managing project scope, time, cost, human resources, communication, risk, and procurement management to produce quality deliverables. (SCC)
#### MMGT 245 - Introduction to Consulting (2 cr)

This course introduces students to the information and procedures required to start a consulting business. Course content includes an in-depth study of business structure, business location, necessary government forms, equipment, supply and insurance needs, budgeting and accounting requirements, pricing considerations, and marketing strategies. (SCC, SFCC)

#### MMGT 251 - Transportation Systems (3 cr)

This course will expose students to the major aspects of business logistics. Students will learn about modes of transportation, documents involved in the transportation of goods, and issues concerning rate negotiations. This course utilizes a"hands-on" approach in order for students to take information and apply it to their current and future work assignments. (SFCC)

# MMGT 252 – Principles of Purchasing (3 cr)

This course will provide students with an understanding of purchasing, supply contracts, it, and leasing. Students will gain knowledge of the laws governing the regulation of purchasing, contracts, leases, and out-sourcing. (SFCC)

#### MMGT 253 - Inventory Management (3 cr)

This course will introduce the concept of "inventory" and the relationship it has to a business. Students will become familiar with inventory systems, purchasing, and completing documentation. (SFCC)

#### MMGT 254 - Logistics and Supply Chain Management (3 cr)

This course will introduce students to the role of the logistics processes within the business environment. Students will develop and apply analytical and problem solving skills to find solutions to real-world issues. (SFCC)

### MMGT 255 - Warehouse and Distribution Management (3 cr)

This course will familiarize students with the role of the warehousing function in the economy and its relationship to the logistics process. Students will develop and apply analytical and problem solving skills to find solutions to real-world issues. (SFCC)

#### MMGT 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

#### MMGT 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC, SFCC)

#### MMGT 270 - Conference Preparation Techniques (1-5 cr)

Preparation and organization of conferences and meetings. Emphasis is placed on DECA competitive event. Preparation in such areas as research and data collection, development of visual and written materials, problem solving exercises, speech presentation, and other competitive event requirements. Prerequisite: Membership in DECA and permission of instructor. (SFCC)

#### MMGT 288 – Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### MMGT 295 - Management Workshop (0.5-3 cr)

This course focuses on current trends, unique needs or areas not covered in existing management classes. (SFCC)

#### **MASSAGE THERAPY**

#### MASS 110 - Introduction to Massage Therapy (6 cr)

This course introduces students to the massage therapy profession in the healthcare, the spa, and the entrepreneurial environment. The basics of massage technique, kinesiology, and hydrotherapy are explored. Laboratory experiences to support these concepts are included in the course. Prerequisite: Admission into the massage therapy program. (SCC)

#### MASS 120 - Massage Technique I (4 cr)

Students are introduced to the basic theory and practice of massage therapy as well as the history of bodywork. Students lean the components and technique of Swedish massage. Students become skilled in taking a client's medical history and master appropriate draping techniques. Professional courtesies toward clients before, during and after professional sessions are addressed, and basic palpation skills and assessment of pain levels are covered. Students learn the application and use of massage therapy equipment and supplies, such as adjustable tables, bolsters, pillows and lotions or oils. Basic indications for and contraindications to massage therapy are introduced. Students show competence in administering a basic full body relaxation massage at the end of this class. Prerequisite: HED 108, MASS 110. (SCC)

#### MASS 122 – Body Mechanics I (1 cr)

COURSE DESCRIPTIONS

Students learn and practice safe and effective physical techniques to be utilized by the massage therapy practitioner. Students experience the proper positioning of the feet, legs, back, shoulders and head for the most effective practice of massage therapy. Breathing techniques for maintaining good equilibrium and energizing the massage practitioner are learned and studied. The technique of "centering" is introduced. Students take basic skills learned in Introduction to Massage Therapy and learn to utilize proper body mechanics and structure to avoid repetitive stress injury to the practitioner. Students learn the importance of, and practice stretching of the forearms, wrists, hands and fingers. Prerequisite: HED 108, MASS 110. (SCC)

#### MASS 124 – Kinesiology I (2 cr)

This course introduces the exploration of the structural and functional components involved in the complex movement of the human body. Anatomical principles related to gross motor movement are studied, as well as muscular imbalance of the large muscles of the body and their impact on postural distortion. Structure and function of major muscles and joints of the body are covered in depth. Basic endangerment sites as contra indicatory for massage therapy are identified. Students learn to evaluate standing posture and patterns of movement in clients. The primary identification of areas of muscular compensation during periods of injury is established. Prerequisite: HED 108, MASS 110. (SCC)

#### MASS 126 – Hydrotherapy I (1 cr)

This course is designed to introduce the massage therapy students to the use of heat and cold in body treatments. Types of apparatus approved for use by the massage practitioner are studied and hydrotherapy as a therapeutic aid will be explained. Students learn to identify the physiological principles and mechanisms involved in the effects of hydrotherapy. Students learn to utilize hot or cold packs during massage therapy sessions. Indications and contraindications, as well as precautions and effects of hydrotherapy are studied. This course also covers hygiene and sanitation as they relate to hot and cold hydrotherapy applications. Prerequisite: HED 108, MASS 110. (SCC)

#### MASS 130 – Massage Technique II (3 cr)

Students begin to learn the initial evaluation and treatment of injuries. The basics of organizing an individual client treatment plan and managing/ modifying that plan based on client response are examined. Students begin the instruction of deep tissue massage therapy and learn more advanced palpation skills that enable the practitioner to work deeply without being intrusive and causing consequential pain. Students study pain referral patterns and learn to incorporate basic neuromuscular/trigger point therapy into their bodywork routine. Massage therapy techniques for the geriatric populations are covered. Prerequisite: HED 125, MASS 120, 122, 124, 126. (SCC)

#### MASS 132 – Body Mechanics II (1 cr)

Massage therapy students continue the process of learning how to avoid fatigue, pain and joint dysfunction as they continue integration of massage technique and practitioner posture. Continuing exercises for therapist strength, balance and body control are examined and practiced. Students are encouraged and taught to maintain the technique of practitioner"center" for effective massage. Students are taught proper stance and effort on the part of the practitioner. Flexibility, strength, grounding and centering will be stressed for coordination, balance, control and stamina during multiple massage sessions. Prerequisite: HED 125, MASS 120, 122, 124. (SCC)

# MASS 134 – Kinesiology II (2 cr)

Kinesiology II offers more advanced study of human movement and begins the in depth study of fine motor skill movement in the human body. Emphasis is on the smaller muscular and joint structure of the body, parallel with review of the joint and large muscle groups. Students learn to further recognize areas of muscular compensation. Students study the impact of pain and injury on posture, and recognize the compensatory patterns in the body. In-depth knowledge of the recognition and palpation of bony landmarks are developed, as well as the intrinsic muscular origins and insertions of the body. An analysis of the relationships between synergist and antagonist muscles are covered in depth. Prerequisite: HED 125, MASS 120, 122, 124, 126. (SCC)

#### MASS 136 – Hydrotherapy II (1 cr)

This course covers further study of hot and cold modalities utilized in the field of massage therapy. Students learn the use of paraffin and the different utilizations of moist and dry heat. Ice massage will be taught as an integral part of injury repair, and alternating heat and cold application will be studied. Thermal, mechanical and chemical changes as a result of hydrotherapy will be examined in depth. Students learn the necessary skills to provide the most commonly requested spa treatments. A specific module in hot stone therapy is included. Students are instructed in salt scrubs, herbal and seaweed wraps and exfoliation. Prerequisite: HED 125, MASS 120, 122, 124, 126. (SCC)

#### 218 MASS 138 – Student Clinic I (1 cr)

Each student is required to fulfill 33 hours working in a professional clinic environment. During the course of the clinic, students fill the various roles required in managing a clinic: Students will schedule appointments, make reminder phone calls to clients, order massage therapy supplies and maintain supplies for the treatment rooms, as well as keep complete SOAP charts for clients. Prerequisite: HED 125, MASS 120, 122, 124, 126. (SCC)

#### MASS 140 - Massage Technique III (3 cr)

Students integrate the skills learned in Massage Technique I and II and add more advanced bodywork study. Students become proficient in building a full hour session with a client. Students learn a whole body approach to utilize stretching and unwinding techniques, as well as more advanced palpation methods. Continued and advanced study of injury assessment, evaluation and treatment, and postural analysis is pursued. Included are modules featuring pregnancy massage and on-site chair bodywork. Students also become acquainted with the study of lymphatic drainage massage technique and learn basic massage therapy work for cancer patients. Prerequisite: HED 109, MASS 130, 132, 134, 136, 138. (SCC)

#### MASS 142 - Anatomy/Physiology/Pathology (5 cr)

This course is a continued overview of human anatomy and physiology, with an emphasis on pathology as it relates specifically to massage therapy work. Students learn to address both health and dysfunction in the various systems of the body and further review various conditions as indications for massage therapy. Prerequisite: HED 109, MASS 130, 132, 134, 136, 138. (SCC)

#### MASS 144 - Business Practices for the Massage Therapist (5 cr)

In this comprehensive course for the massage therapist, students study all facets of managing a successful professional business. Students learn to identify common business structures and formulate a business plan, including short and long term goals. Students learn the basic aspects of legal agreements and contracts for the professional massage therapy office. Client confidentiality, HCFA forms for billing, and HIPAA regulations are discussed. Client records, financial, tax and legal records are covered, as well as in depth knowledge of federal, state and local regulations for the industry. Students become proficient in effective management of time, including scheduling of clients. Prerequisite: HED 109, MASS 130, 132, 134, 136, 138. (SCC)

#### MASS 146 - Seminar (1 cr)

In this class, students in the massage therapy program are introduced to a variety of bodywork techniques. Experts in different fields are brought in four times during the quarter to share their area of expertise. Students meet throughout the quarter in professionally supervised groups, to discuss in detail the specific fields of study chosen for presentations. Outside reading in various areas of bodywork fields is required, and students are expected to do a presentation on a specified chosen area of interest. Prerequisite: HED 109, MASS 130, 132, 134, 136, 138. (SCC)

#### MASS 148 – Student Clinic II (2 cr)

Each student is required to fulfill a number of hours working in a professional clinic environment. During the course of the clinic, students fill the various roles required in managing a clinic: Students will schedule appointments, make reminder phone calls to clients, order massage therapy supplies and maintain supplies for the treatment rooms, as well as keep complete SOAP charts for clients. Students also are required to write narrative reports, progress charts, and letters to physicians. In addition, clinic students are expected to provide quality and professional health care to the clients from the community who choose to engage them. Prerequisite: HED 109, MASS 130, 132, 134, 136, 138. (SCC)

# **MATHEMATICS**

#### MATH 020 - Mathematics Center 1 (1-5 cr)

This course covers basic fundamentals of arithmetic including whole numbers, fractions, decimals, ratios, proportions and percentages. It is offered as a variable credit individualized program and designed for students who have a limited background in math. (SCC, SFCC)

#### MATH 021 - Developmental Math (5 cr)

This course covers basic fundamentals of mathematics for students who need review of numerous topics taught between grades seven and twelve. Whole numbers, fractions, decimals, ratios, proportions, percentages, powers and roots, integers, and algebraic equations are emphasized. (SCC, SFCC)

# MATH 030 - Introduction to Texas Instruments Calculators (1 cr)

This course introduces Texas Instruments graphing calculators to students taking MATH 099 or above. Basic calculator functions, graphing and equation solving, and regression equations are emphasized. Prerequisite: Assessment of placement into MATH 099 or higher. (SCC, SFCC)

#### MATH 035 – The Metric System (1 cr)

Audio-tutorial learning program offered through the math center with emphasis on learning to use metric units naturally: To conceptualize in meters, liters, grams, degrees, Celcius, etc., without tedious conversions from the customary U.S. units. (SFCC)

# MATH 070 - Basic Mathematics I (2 cr)

This course is the first course in a three course sequence which is intended for students who have studied Arithmetic but are not ready for Elementary Algebra. Topics will include whole numbers, integers and statistics. Prerequisite: Appropriate placement score. (SFCC)

#### MATH 071 - Basic Mathematics II (2 cr)

This course is the second course in a three course sequence which is intended for students who have studied Arithmetic but are not ready for Elementary Algebra. Topics will include fractions, decimals and percents. Prerequisite: MATH 070 with a 2.0 or better. (SFCC)

#### MATH 072 – Basic Mathematics III (2 cr)

This course is the third course in a three course sequence and is intended for students who have studied Arithmetic but are not ready for Elementary Algebra. Topics will include ratios, proportions, geometry and an introduction to algebra. Prerequisite: MATH 071 with a 2.0 or better. (SFCC)

#### MATH 087 - Math Center 3 (1 cr)

Offered in SCC's Math Center, this course is designed to provide supplemental math tutorial instruction for students concurrently enrolled in SCC math courses. Instructor permission required. Grade option: Pass/Fail. Prerequisite: Proper placement in concurrent math courses. Permission of instructor and concurrent enrollment in an SCC math course. (SCC)

#### MATH 089 - Math Prep for the Sciences (1 cr)

This course provides a mathematical foundation for students who will be taking introductory science courses. Subjects covered include the metric system, dimensional analysis, scientific notation, significant figures using a scientific calculator, and translating word problems from all areas of science. (SCC)

# MATH 090 – Pre-Algebra (5 cr)

A course intended for students who have studied arithmetic but who are not ready for elementary algebra. Numerous introductory topics from grades 9 through 12 are covered which may include operations with signed numbers and rational numbers, simple algebraic equations, properties of real numbers, prime numbers and factoring, exponents and roots, geometric concepts, basic graphs, metrics, basic inequalities, or absolute value. Prerequisite: MATH 021 with 2.0 or better or appropriate placement score. (SCC, SFCC)

#### MATH 091 - Elementary Algebra I (5 cr)

This course covers beginning algebra concepts for students without high school algebra or those who need a review. Topics will include real numbers, algebraic expressions, equations and inequalities, polynomials and graphing. Other topics may include factoring. Prerequisite: MATH 021 or 090 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH 092 – Elementary Algebra II (5 cr)

This course is a continuation of MATH 091. Topics include factoring, rational expressions, linear equations in two variables and systems of equations. Other topics may include radicals and quadratic equations. Prerequisite: MATH 091 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH 093 - Algebra I (5 cr)

This course covers beginning algebra concepts for students without high school algebra or those who need a review. Topics will include algebraic expressions, linear equations, lines, linear regression, inequalities, and graphing. Prerequisite: MATH 090 with a 2.0 or better; or appropriate placement score. (SFCC)

#### MATH 094 – Algebra II (5 cr)

This course is a continuation of MATH 093. Topics include exponents, radicals, power functions, quadratic (models, equations, translations), and right angle trigonomentry. Prerequisite: MATH 093 with a 2.0 or better within the last three years or appropriate placement score. (SFCC)

#### MATH 095 – Mathematics Center 2 (1-5 cr)

This course reviews arithmetic and pre-algebra and is offered as a variable credit individualized program in the Math Center for students preparing to take algebra. Prerequisite: Counselor or instructor referral. (SCC, SFCC)

This course covers introductory algebra skills. Topics include signed numbers, linear equations, graphing linear equations, linear systems of equations, polynomials and rational expressions. This course is designed for students who need a review of high school algebra. Prerequisite: MATH 021 or 090 with a 3.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH 097 - Intermediate Algebra: A Modeling Approach (5 cr)

This course covers intermediate algebra skills through a modeling approach. Topics include linear, quadratic and exponential functions, and introductions to geometry, probability, sequences and statistics. Prerequisite: MATH 091 and 092 or MATH 096 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

#### MATH 098 - Algebra III (5 cr)

This course is a continuation of MATH 094 and covers intermediate algebra skills. Topics include sequences, rational expressions and equations, basic functions that include but are not limited to absolute value, exponential and logarithmic. Prerequisite: MATH 094 with a 2.0 or better or an appropriate placement score. (SFCC)

#### MATH 099 - Intermediate Algebra (5 cr)

This course covers intermediate algebra skills. Topics include a review of beginning algebra concepts, radicals, inequalities, functions and quadratic functions. Other topics may include exponential and logarithmic functions. Prerequisite: MATH 091 and 092 or 096 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH 100 - Vocational Technical Mathematics (1-6 cr)

Basic mathematics from whole numbers through elementary algebra and triangle trigonometry to fulfill the needs of professional/technical students at their current mathematical level. Courses are offered and objectives and credits determined by contract between math department and the requesting professional/technical program. Prerequisite: Registration in the requesting vocational area or permission of instructor. (SCC, SFCC)

# MATH& 107 - Math in Society (5 cr)

This course is an option for students needing to satisfy a post-intermediate algebra requirement in which the field of study does not necessitate a specific course. Traditional coursework is combined with a discussion of what mathematics is and does, in addition to an examination of problem-solving techniques. Specific topics may vary at the discretion of the instructor. Prerequisite: MATH 099 with a 2.0 or better within the last three years or appropriate placement score. (SCC, SFCC)

#### MATH 108 - College Algebra (3 cr)

This course bridges the gap between Intermediate Algebra and the next higher level math classes, specifically Pre-calculus. Topics in this course include, but are not limited to, functions, graphing, exponents, radicals, algebraic fractions, equations, inequalities, and various applications including the use of the graphing calculator. Course is not intended for students who have earned at least a 2.8 in MATH 099. Prerequisite: MATH 099 with a 2.0 or better within the last three years or appropriate placement score. (SFCC)

#### MATH& 141 - Precalculus I (5 cr)

This course covers college algebra skills, which include polynomial, rational, exponential and logarithmic functions, systems of equations and matrix solutions, and graphs of polynomial functions. Other topics may include sequences, series and summations. Prerequisite: SFCC: Math 099 with a 2.8 or better within the last three years or MATH 108 with a 2.0 or better or appropriate placement score. College level reading scores recommended. SCC: Math 099 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH& 142 - Precalculus II (5 cr)

This course introduces circular functions and analytic trigonometry needed for further study in mathematics. Other topics include sequences and series, mathematical induction, conic sections, rotation and translation of axes, DeMoivre's theorem and nth roots of complex numbers, or vectors in the plane. Prerequisite: MATH& 141 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH& 148 - Business Calculus (5 cr)

A one-quarter introduction to differential and integral calculus. Specifically oriented for students in management, life sciences and social sciences. Prerequisite: MATH& 141 or MATH 201 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH& 151 – Calculus I (5 cr)

This is the first quarter of a three-quarter course in calculus and analytic geometry. This course includes an introduction to limits, rates of change and continuity. The course also deals with the definition of derivative of a function and rules of differentiation, curve sketching and other application of differentiation, introduction to integrals and the Fundamental Theorem of Calculus. Prerequisite: MATH& 141 and MATH& 142 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH& 152 – Calculus II (5 cr)

This is the second quarter of a three-quarter course in calculus and analytic geometry. This course also includes applications of integration, derivatives and integrals of exponential, logarithmic and the trigonometric functions, derivatives and integrals of hyperbolic functions and their inverses, indeterminate forms and L'Hopital's Rule, and techniques of integration. Other topics may include vectors and the geometry of space. Prerequisite: MATH& 151 with a 2.0 or better. (SCC, SFCC)

#### MATH& 153 - Calculus III (5 cr)

This is the third quarter of a three-quarter course in calculus and analytic geometry. This course includes an introduction to differential equations; parametric equations; polar, cylindrical and spherical coordinates; infinite sequences and series. Cylindrical and quadric surfaces, vector valued functions and their space curves, and derivatives and integrals of vector functions also are discussed. Prerequisite: MATH& 152 with a 2.0 or better. (SCC, SFCC)

#### MATH 201 - Introduction to Finite Mathematics (5 cr)

This course covers basics of mathematical models, including linear, quadratic and polynomial functions, systems of linear equations and inequalities, linear programming and matrices. Elementary concepts of probability and simulation are introduced. Particular emphasis is placed on business and social applications. Prerequisite: MATH 099 with a 2.0 or better within the last three years; or appropriate placement score. College level reading scores recommended. (SCC, SFCC)

#### MATH 208 — Mathematics for Elementary Education – A (5 cr)

This is the first course in a three course sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Problem solving, set theory, elementary logic, numeration systems, number theory, and the structure of the system of real numbers. Prerequisite: MATH 099 with a 2.0 or better; or appropriate placement score. College level reading score recommended. (SCC, SFCC)

#### MATH 209 - Mathematics for Elementary Education - B (5 cr)

This is the second course in a three course sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Statistics, probability, and the structure of the system of real numbers including integers, rational and irrational numbers. Prerequisite: MATH 208 with a 2.0 or better. (SCC, SFCC)

#### MATH 210 – Mathematics for Elementary Education – C (5 cr)

This is the last course in a three course sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Problem solving, structures of geometry, to include shapes, measurements, triangle congruencies, and the coordinate system. Prerequisite: MATH 208 with a 2.0 or better. (SCC, SFCC)

#### MATH 211 - Mathematics for Elementary Education I (5 cr)

This is the first course in a sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Set theory, numeration systems, number theory, the structure of the system of real numbers and problem solving. Prerequisite: MATH 099 with a 2.0 or better within the last three years; or appropriate placement score. College level reading scores recommended. (SCC, SFCC)

#### MATH 212 – Mathematics for Elementary Education II (5 cr)

This is the second course in a sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Statistics, geometry and measurement. Prerequisite: MATH 211 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

#### MATH 213 – Geometry (5 cr)

This course is an introduction to the structure of geometry, the deductive reasoning process, and geometric figures and their properties. Euclidean and non-Euclidean topics are covered. Prerequisite: MATH 099 with a 2.0 or better within the last three years; or appropriate placement score. (SFCC)

#### MATH 220 — Elementary Linear Algebra (5 cr)

Introduction to linear transformations, matrix theory, vector products, finite dimensional spaces, subspaces, spanning sets, bases, eigenvalues and eigenvectors. Prerequisite: MATH& 152 with a 2.0 or better. (SFCC)

#### MATH 221 – Introduction to Probability and Statistics (5 cr)

Descriptive statistics, probability, probability distributions, sampling methods, hypothesis testing, statistical inference, correlations, regression and analysis of variance are covered in this course. Prerequisite: MATH 099 with a 2.0 or better within the last three years; or appropriate placement score. College level reading scores recommended. (SCC, SFCC)

#### MATH 225 – Foundations of Mathematics (5 cr)

This course serves as an introduction to basic concepts of post-calculus mathematics. Topics include logic, methods of proof, set theory, relations and functions. Prerequisite: MATH& 152. (SFCC)

#### MATH 245 - Discrete Mathematics (5 cr)

An introduction to the theory of the mathematics found in computer science. Topics include logic, proofs, sets, counting, probability, matrices, functions and relations, graphs, and trees. Prerequisite: MATH& 151. (SCC, SFCC)

#### MATH& 254 - Calculus IV (5 cr)

A course designed to give students an introduction to the basic concepts of multivariable calculus using the tools of linear algebra as applicable; vector functions, real valued functions, differentiation of scalar functions, multiple integration, vector differentiation and integration, transformation of coordinates, Green's Theorem, Stoke's Theorem, Gauss' Theorem and Lagrange Multipliers. Prerequisite: MATH& 153, MATH 220 with a 2.0 or better. (SFCC)

#### MATH 274 - Elementary Differential Equations (5 cr)

An introduction to ordinary differential equations. Elementary methods of solutions to first-order equations, linear equations of second and higher order, and systems of first-order linear equations. Power series solutions, numerical methods and Laplace Transforms also are covered. Prerequisite: MATH& 153, MATH 220 with a 2.0 or better. (SFCC)

# **MECHANICAL ENGINEERING TECHNOLOGY**

#### MET 101 – Introduction to Engineering (2 cr)

This course is an overview of engineering careers, applying concepts and general elements of professionalism, strategies, and computer applications for the engineering office. Basic sketching skills, file management commands, computer terminology, data communication concepts, CAD principles and the practical application of relevant software packages are emphasized. (SCC)

#### MET 103 – Introduction to Computers for Technology (2-5 cr)

Students learn computer concepts and general elements of a computer system. Basic keyboarding skills, file management commands, computer terminology, data communication concepts, introductory CAD principles and/or the practical application of relevant software packages are emphasized. (SCC)

#### MET 113 – Computer Fundamentals for Engineering (5 cr)

This course introduces computer concepts and general elements of a computer system. Basic keyboarding skills, file management commands, computer terminology, data communication concepts, CAD principles and the practical application of relevant software packages are emphasized. (SCC)

#### MET 115 – Technical Mathematics (5 cr)

This course includes theory and practical application of math concepts with an extensive study of the fundamentals of algebra. (SCC)

#### MET 116 - Technical Mathematics Lab (2 cr)

This course applies the concepts and theories introduced in MET 115. Prerequisite: Concurrent enrollment in MET 115. (SCC)

# MET 122 – Applied Technical Math Lab (2 cr)

This course applies the concepts and theories introduced in MET 123. Prerequisite: Concurrent enrollment in MET 123. (SCC)

#### MET 123 – Applied Technical Mathematics (5 cr)

This course continues with the concepts introduced in MET 115 to prepare students for advanced-level math. Basic and advanced algebra are reviewed, and an introduction to practical geometry and trigonometry also is presented. Prerequisite: MET 115. (SCC)

#### MET 125 - Introduction to Computer Aided Design (3-5 cr)

Students are introduced to the fundamentals of computer aided design (CAD). AutoCAD software as it applies to drawing in a format using the principles of mechanical, architectural, civil and electrical/electronics is emphasized. Prerequisite: MET 113 or CIS 105 or 112; or approved equivalent. (SCC)

#### MET 126 - Basic Mathematics II (2 cr)

This course continues of MET 115 to prepare students for advanced-level math. Basic algebra and an introduction to practical geometry and trigonometry are reviewed. Prerequisite: APLED 112 or ARCHT 114 (with permission of instructor). (SCC)

#### See program/course abbreviation key on page 143.

#### MET 127 – Manufacturing Processes (3 cr)

This course is a comprehensive study of the processing of materials, industry standards and manufacturing techniques used in industry. (SCC)

#### MET 133 – Introductory Applied Physics (3 cr)

Students are introduced to the basic concepts of our physical world. This course has minimal computational requirements, therefore little math background is required. (SCC)

#### MET 137 – Applied Technical Mathematics II (5 cr)

This course continues with the concepts introduced in MET 123. A review of algebra and an in-depth study of practical geometry and trigonometry are presented. Prerequisite: MET 123. (SCC)

#### MET 139 – Hydraulics/Pneumatics (3 cr)

Students are introduced to the application, uses and design of hydraulic and pneumatic components used in industry. Students learn the basics of circuit design. (SCC)

#### MET 242 – Mechanical Design Fundamentals (4 cr)

This course is a comprehensive study of the design and drawing of machinery components including fasteners, springs, gears, belt drives, chain drives, couplings and bearings. (SCC)

### MET 244 – Tolerancing Systems (3 cr)

This course introduces the use of geometric calculations and measuring instruments to determine true tolerances on detail drawings. Prerequisite: MET 242. (SCC)

#### MET 245 - Applied Physics (5 cr)

This course introduces basic concepts of our physical world. Application of physics laws using algebra, trigonometry and geometry is employed. A minimum math background equal to MATH 100 or MET 123 is required to meet computational requirements. Prerequisite: MATH 100 or MET 123. (SCC)

#### MET 247 - Shop Practices (3 cr)

This course introduces safety practices in the shop. Students learn the basic operation techniques of the lathe, mill, drill press, and various hand and power tolls used in a typical shop. Joining techniques such as welding, brazing, soldering and mechanical fasteners are included. (SCC)

#### MET 250 - Strength of Materials/Materials Science (5 cr)

Students study the strength of materials and the effects of stress. Types of stress and deformation, stress-strain diagrams, stress analysis and design problems are emphasized. Applied machine design, and structural and beam design projects are included. Study the characteristics of a variety of materials including specifications, tolerance, weight, and heat treating capabilities. Prerequisite: MET 245. (SCC)

#### MET 253 - Materials Science (2 cr)

This course is a comprehensive study of the characteristics of a variety of materials including their standards and specifications, tolerance, weight, and heat treating capabilities. Prerequisite: MET 245. (SCC)

# MET 254 – Statics (5 cr)

Students study forced systems including vector force principles, forces and reactions at supports, force vector diagrams, coplanar force systems, stresses in truss systems and applied problems. Prerequisite: MET 245. (SCC)

#### MET 255 – Technical Applications I (2-5 cr)

Students practice applied projects related to engineering technology that include interdepartmental projects, CAD design, shop skills and computer applications. This course may substitute cooperative education courses. Prerequisite: MET 247. (SCC)

#### MET 262 — Electrical Theory for Engineering (5 cr)

This course introduces the concepts of basic electrical theory including alternating and direct current. Component identification and manufacturing processes of printed circuit boards, integrated circuits and wiring hardware are emphasized. Students learn to read and create electrical schematic diagrams and flow/logic charts. (SCC)

#### MET 263 - Machine Controls (2 cr)

The course introduces machine control systems. Students identify and design electro-mechanical, electronic and hydraulic, and pneumatic control systems. The function of programmable logic controllers and basic programming techniques are emphasized. (SCC)

#### MET 264 — Technical Applications II (2-5 cr)

This course continues with the applications offered in MET 255 with emphasis on special projects related to manufacturing practices and shop personnel interactions. Prerequisite: MET 255. (SCC)

#### MET 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# MET 267 — Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

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#### MET 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **MEDICAL ASSISTANT**

# MA 101 – Administrative Medical Assistant I (5 cr)

This course introduces students to the medical assistant profession and the office environment. Professional organizations, federal regulations and requirements, and legal concepts for the field are emphasized. Prerequisite: Admission into the medical assistant program and CIS 110. (SCC)

#### MA 102 - Clinical Medical Assistant I (3 cr)

This course introduces students to hands-on patient care. Topics include the role of the medical assistant in patient care, nutrition, vital signs and measurements. Prerequisite: Admission into the medical assistant program and CIS 110. (SCC)

#### MA 111 – Administrative Medical Assistant II (3 cr)

Students work with medical office computer applications. Medical records and patient scheduling are introduced. Other topics include written communications and provider schedule management. Prerequisite: MA 101, 102. (SCC)

# MA 112 - Clinical Medical Assistant II (5 cr)

This course submerges students in the clinical phase of medical assisting. Topics include patient history, interviews and documentation, asepsis, infection and disease control, basic physical exams, principles of x-ray and EKG equipment, rehabilitative medicine, emergencies, and first aid. Prerequisite: MA 101, 102. (SCC)

#### MA 120 - Medical Assistant Coding and Reimbursement (3-5 cr)

Medical insurance terminology and billing procedures are covered in this course. Students learn to use the CPT and ICD-9-CM for basic ambulatory care setting coding needs. Legal and ethical issues regarding insurance billing also are covered. Prerequisite: Successful completion of MA 101, 102, 111, 112 and concurrent enrollment in MA 122, 125. (SCC)

#### MA 121 - Administrative Medical Assisting (5 cr)

Administrative and management procedures needed to effectively manage the office, monitor finances, maintain supplies, perform quality improvement studies, and risk management profiles are taught. Bookkeeping and accounting principles, communication negotiation and psychological concepts are studied and practiced. Introduction to the student externship is given. Students spend four hours a week for eight weeks practicing skills learned in a medical office. Prerequisite: Successful completion of first and second quarters and concurrent enrollment in MA 120, 121, 122. (SCC)

#### MA 122 - Clinical Medical Assistant III (5 cr)

This course offers advanced clinical skills for the medical assistant. Specialty exams and sterile procedures are emphasized. Students learn about collecting and processing laboratory specimens, and the proper use of microscopes. An overview of microbiology also is offered. Prerequisite: HED 108, 125, MA 111, 112. (SCC)

#### MA 125 – Ambulatory Care Setting Pharmacology (5 cr)

This course covers principles of pharmacology. Medication classifications will be studied according to body system and usage. Students will learn the different routes for medication administration, medication actions, contraindications and side effects. Prerequisite: Successful completion of MA 101, 102, 111, 112 and concurrent enrollment in MA 120, 122. (SCC)

#### MA 131 - Practice Finances and Management (3 cr)

This course offers advanced administrative skills for the medical assistant. Topics include practice finances, accounting practices and the medical assistant in the roll of an office manager. Prerequisite: HED 109, MA 121, 122. (SCC)

#### MA 132 - Clinical Medical Assistant IV (5 cr)

This is the final course in preparation for clinical practice. The content is concentrated on injection and venipuncture techniques. Medication administration and dosage calculations are covered. Prerequisite: HED 109, MA 121, 122. (SCC)

#### MA 141 – Medical Assistant Seminar (1 cr)

Topics covered enhance students' abilities at the clinical site. They review important topics by applying the concepts required in the clinical area. Mock national certificate exams are offered. Prerequisite: HED 109, MA 121, 122, 131, 132 and concurrent enrollment in MA 142. (SCC)

## MA 142 – Medical Assistant Externship (6 cr)

Students work under the supervision of facility personnel or the instructor in a physician's office. They utilize and apply the administrative and clinical skills learned in an actual ambulatory care setting. Prerequisite: HED 109, MA 121, 122, 131, 132 and concurrent enrollment in MA 141. (SCC)

# **MEDICAL OFFICE SPECIALIST**

# MSEC 101 - Medical Terminology and Anatomy (5 cr)

Students are introduced to the unique language of medicine emphasizing basic medical word structure and commonly used clinical terms. An overview of normal anatomy and anatomic terms is accomplished prior to a study of common diseases and disorders of the human body with a system-by-system approach. (SCC)

#### MSEC 102 - Medical Terminology and Anatomy (5 cr)

This course continues with the concepts introduced in MSEC 101 emphasizing the unique language of medicine, normal anatomy and function, and disease and disorders of the body with a system-by-system approach. Prerequisite: MSEC 101 or permission of instructor. (SCC)

#### MSEC 103 – Disease Processes (5 cr)

Students study common diseases and conditions including prevention etiology, signs and symptoms, diagnostic and treatment modalities, prognoses, and the use of medical references for research and verification. Prerequisite: MSEC 101 and 102 or permission of instructor. (SCC)

# MSEC 108 – Medical Office Computing (5 cr)

Students receive hands-on training using financial, scheduling, word processing and clinical database software packages utilizing a microcomputer. Prerequisite: Keyboarding skills. (SCC)

#### MSEC 120 — Human Relations/Communications for Medical Office Personnel (5 cr)

Students learn the principles of therapeutic communications, human growth and development and their application to specific medical circumstances. (SCC)

#### MSEC 121 – Medical Office Reception (5 cr)

This course introduces students to the profession of the administrative medical assistant and how it fits within the health care environment and health care teams. Topics include legal and ethical concepts, telephone and scheduling techniques, medical records management rules and regulations, and how to create a comfortable facility atmosphere. Students enhance their ability to research using the Internet and library, create written reports and make round-table presentations. Prerequisite: BT 231. (SCC)

# MSEC 123 – Medical Office Coding (5 cr)

This course introduces the identification of diagnoses and services by code. Transformation of verbal descriptions of diseases, injuries and procedures into numeric designations is presented using the Current Procedural Terminology (CPT) and the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) coding books. Prerequisite: MSEC 102 or concurrent with MSEC 102. (SCC)

#### MSEC 124 - Medical Office Insurance Billing (5 cr)

This course introduces major, nationwide and local medical insurance programs. Students learn to simplify the process of filing claim forms and gain an understanding of medical insurance requirements for billing, confidentiality, coding, referrals and professional fees. Students also develop an "insurance information" notebook for future reference. Prerequisite: MSEC 101 and concurrent enrollment in MSEC 125. (SCC)

#### MSEC 125 – Medical Office Bookkeeping (5 cr)

This course introduces medical office billing procedures using medical management software. An interactive approach allows students to open new accounts, post typical business transactions, and open and close posting cycles. An overview of account aging, billing and collection procedures is included. Prerequisite: ACCT 151, BUS 103 and concurrent enrollment in MSEC 124. (SCC)

#### MSEC 130 - Chiropractic Philosophy (3 cr)

Students learn the history of the chiropractic field including discussions about the early pioneers who practiced chiropractic methods, used philosophical principles and developed chiropractic techniques. (SCC)

### MSEC 131 – Fundamentals of Medical Word Processing (5 cr)

This course introduces the fundamentals of medical word processing including transcription of medical office correspondence and reports (medicolegal, history and physical, consultation, and discharge summaries). Students learn various mechanical formats used to prepare these reports. The application of medical terminology to develop familiarity with spoken terms is emphasized. Prerequisite: Typing speed of 50 wpm. (SCC)

#### MSEC 132 - Medical Transcription I (10 cr)

Students develop skills in transcription of medical dictation and word processing software using personal computers to transcribe selected medical correspondence and medical reports. A review of language skills including vocabulary, grammar and punctuation, capitalization, numbers, figures and abbreviations is presented. Transcription of reports (history and physical, operative, and discharge summaries) is emphasized. An academic study of related terminology also is included. Prerequisite: MSEC 131. (SCC)

#### 222 MSEC 133 – Medical Transcription II (10 cr)

Students continue to develop the skills in the transcription of dictation utilizing proofreading and editing skills while meeting progressively demanding accuracy and productivity standards. Transcription of pathology, radiology, diagnostic testing and industrial medical reports is emphasized. An academic study of related terminology is included. Prerequisite: MSEC 133. (SCC)

#### MSEC 140 - Portfolio Development (5 cr)

This course enables students to transfer a portion of significant prior learning into elective credits through the development of a portfolio. (SCC)

#### MSEC 150 - Medical Transcription Practicum (8 cr)

Students must complete a minimum of 264 hours of on-the job medical transcription training. Consultations, histories and physicals, operative reports, discharge summaries, and other medical reports are emphasized. Prerequisite: MSEC 133. (SCC)

#### MSEC 180 - Basic Medical Assisting (5 cr)

Students are introduced to the basic skills and knowledge necessary for medical assistants in a typical medical office environment. Prerequisite: MSEC 102. (SCC)

#### MSEC 205 – Medical Office Management Procedures (5 cr)

This course focuses on management responsibilities as they apply to a medical office environment. Students learn collection and billing procedures, management of space, equipment, personnel records, finances and reports. Prerequisite: MSEC 124, 125. (SCC)

#### MSEC 220 - Chiropractic Back Office Procedures (5 cr)

Students develop skills to assist the chiropractor with the care of patients. They learn to maintain patient records and differentiate between comprehensive and focused exams. Prerequisite: MSEC 130 and concurrent enrollment in MSEC 230. (SCC)

#### MSEC 223 – Medical Office Coding II (5 cr)

This course continues with the concepts introduced in MSEC 123. A more comprehensive study of the ICD-9-CM and CPT coding systems is presented. Prerequisite: MSEC 123. (SCC)

#### MSEC 224 – Chiropractic Anatomy (3 cr)

Students learn the anatomy and physiology of the central and peripheral nervous systems and how to identify aspects of the musculoskeletal system. Prerequisite: MSEC 102. (SCC)

#### MSEC 230 - Chiropractic Office Procedures (3 cr)

Students learn office procedures specific to a chiropractic office including coding and billing practices. Chiropractic philosophy is presented. Prerequisite: BT 231, MSEC 121. (SCC)

# MSEC 235 – Radiology and Advanced Imaging Procedures (5 cr)

This course emphasizes safety issues affecting patients and employees with regard to proper X-ray and evaluation techniques. Students learn the steps necessary for developing X-rays and assessing radiographs. Prerequisite: Concurrent enrollment in MSEC 250. (SCC)

#### MSEC 236 - Radiology and Advanced Imaging Lab (1 cr)

Students apply the techniques introduced in MSEC 235 in an office setting. Prerequisite: MSEC 220 and concurrent enrollment in MSEC 235. (SCC)

#### MSEC 240 – Medical Office Transcription (5 cr)

Students learn to process, type and transcribe a variety of office reports and other dictation including chart notes, medical reference letters, medicology reports, consultation letters, interoffice correspondence, manuscripts and abstracts. Prerequisite: Typing speed of 40 wpm with 3 or fewer errors by exam. MSEC 102 or concurrent enrollment. (SCC)

#### MSEC 241 – Medical Office Transcription (5 cr)

This course continues with the applications introduced in MSEC 240 with an emphasis on transcription of special medical reports, referral letters and medical office dictation. Accuracy and speed in transcribing tapes are stressed. An academic study of related terminology is presented. Prerequisite: MSEC 240. (SCC)

#### MSEC 250 - Chiropractic Exam Procedures (5 cr)

Students learn the procedures for compiling a patient's history, conducting a physical examination, assessing the "complaint" area and identifying evaluation methods. Prerequisite: MSEC 130, 220 and concurrent enrollment in MSEC 251. (SCC)

#### MSEC 251 - Chiropractic Exam Procedures Lab (1 cr)

Students apply the techniques developed in MSEC 250 to review a patient's history, evaluate and assess the condition of the patient, and chart the information. Prerequisite: Concurrent enrollment in MSEC 250. (SCC)

#### MSEC 266 — Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

MSEC 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### MSEC 284 – Medical Internship Seminar (1 cr)

Students share office experiences, utilize problem-solving skills and participate in career-related activities. Prerequisite: Medical clerical careers students only and MSEC 121 or 133. If earning a medical secretary degree, this must be your final quarter. Concurrent enrollment in MSEC 287. (SCC)

#### MSEC 285 – Medical Office Reception Internship (2-3 cr)

Students are placed in Spokane area medical offices to observe and perform receptionist duties in the medical office environment. Prerequisite: Medical office specialist degree or currently enrolled in the final quarter of the medical office receptionist or medical office insurance clerk programs. Students must also have three "recommended-for-internship" SEA forms. (SCC)

#### MSEC 286 – Medical Insurance Billing Internship (2 cr)

Students observe and apply classroom skills in a Spokane area health care provider office environment for a minimum of 66 hours. Prerequisite: Medical office insurance clerk certificate students currently enrolled in their final quarter. Must have three "recommended-for-internship" SEA forms. (SCC)

#### MSEC 287 – Medical Specialist Internship (2 cr)

Students observe and apply classroom skills in a Spokane area health care provider office environment for a minimum of 66 hours. Prerequisite: Medical Office Specialist degree students. Must have three "recommended-for-internship" SEA forms. (SCC)

#### MSEC 288 — Cooperative Education Work Experience (No Seminar) (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### MSEC 289 - Chiropractic Internship (3 cr)

Students observe and apply classroom skills in a"real" health care provider office environment for a minimum of 99 hours. Prerequisite: MSEC 121, 124, 125, 130 and concurrent enrollment in MSEC 284. (SCC)

#### MSEC 290 - Current Chiropractic Topics (3 cr)

Students explore current issues relating to the chiropractic field and the role of professional organizations and their policies. Students research topics related to the field and make presentations to a panel of chiropractors. (SCC)

#### MSEC 295 – Chiropractic Internship (6 cr)

Students work under the direction of a chiropractor to refine the skills developed in the classroom. Prerequisite: MSEC 235, 250 and concurrent enrollment in MSEC 284. (SCC)

# **MILITARY SCIENCE**

#### MILSC 101 – Introduction to Leadership I (2 cr)

This course is a nontechnical introduction to military science. Students increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, making presentations and basic marksmanship. They learn fundamentals of leadership in a profession in both classroom and outdoor laboratory environments intended to develop students and help them cope with life as a student and as a productive member of society. Highly encouraged, but optional, participation in a one weekend exercise and participation in one-hour sessions of physical fitness are offered. (SCC, SFCC)

#### MILSC 102 – Introduction to Leadership II (2 cr)

Students learn and apply principles of effective leading and team development. This course helps students reinforce self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. It is intended to help students develop skills needed to increase their chances of success in the college environment. Students develop communication skills to improve individual performance and group interaction. They relate organizational ethical values to the effectiveness of a leader. Highly encouraged, but optional, participation in one-hour sessions of physical fitness are offered. (SCC, SFCC)

#### MILSC 103 – Introduction to Leadership III (2 cr)

Students build on and apply principles of effective leading and team development in the classroom and at the leadership laboratory. They continue to develop self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. They develop skills to increase chances of success in a college environment, with special emphasis on communication skills, individual performance, social skills and group interaction. Highly encouraged, but optional, participation in one weekend exercise and participation of one-hour sessions of physical fitness are offered (SCC, SFCC)

#### MILSC 110 - Leadership Laboratory I (1 cr)

A practical application course designed to complement MILSC 100, this course introduces the student to the fundamentals of the professional soldier through classroom instruction and practical application of various military skills such as marching, tactics, care and maintenance of military equipment and land navigation. Field training practical exercises are conducted several times each term on weekends. While participation is not mandatory, it is highly recommended. (SCC, SFCC)

#### MILSC 111 - Leadership Laboratory II (1 cr)

A continuation of MILSC 110, this is a practical application course which complements MILSC 101. Prerequisite: Concurrent enrollment in MILSC 101. (SCC, SFCC)

#### MILSC 115 - Rifle Marksmanship (2 cr)

Instruction in the fundamentals of rifle marksmanship using 22-caliber match quality rifles (provided by the military science department). Participation in ROTC is not necessary. (SCC, SFCC)

#### MILSC 201 - Self/Team Development (3 cr)

Students learn and apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams of people. They develop skills in oral presentations, writing concisely, planning for events, coordination of group efforts, advanced first aid, land navigation and basic military tactics. They learn fundamentals of ROTC's Leadership Development Program. Two hours of classroom instruction and a required two-hour leadership lab each week are offered. Highly encouraged, but optional, participation in one weekend exercise and participation in onehour sessions of physical fitness also are offered. (SCC, SFCC)

#### MILSC 202 - Individual/Team Military Tactics (3 cr)

This course is an introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/ security and methods of pre-execution checks. Practical exercises with upper-division ROTC students are provided. Students learn techniques for training others as an aspect of continued leadership development. Two hours of classroom instruction and a required two-hour leadership lab each week are offered. Highly encouraged, but optional, participation in one weekend exercise and participation in one-hour sessions of physical fitness also are offered. (SCC, SFCC)

#### MILSC 203 - Team Leadership/Military Tactics (3 cr)

An examination of the role of leadership and management in the context of a small organization element is provided with this course. Topics covered include motivation, handling disruptive influences, counseling skills, leadership styles and group dynamics. Students have an opportunity to identify their own strengths and weaknesses as leaders and managers. The course is presented in the context of military leadership, but the concepts can be applied in any context where leadership and management are essential. Highly encouraged, but optional, participation in one weekend exercise and participation in one-hour sessions of physical fitness are offered. (SCC, SFCC)

#### MILSC 210 - Leadership Laboratory III (1 cr)

A practical application course designed to complement MILSC 201, this course introduces the student to the fundamentals of the professional soldier through classroom instruction and practical application of various military skills such as marching, tactics, care and maintenance of military equipment, and land navigation. Field training practical exercises are conducted several times each term on weekends. While participation is not mandatory, it is highly recommended. Prerequisite: Concurrent enrollment in MILSC 201. (SCC, SFCC)

#### MILSC 211 - Leadership Laboratory IV (1 cr)

A continuation of MILSC 110, this is a practical application course that complements MILSC 202. Prerequisite: Concurrent enrollment in MILSC 202. (SCC, SFCC)

#### MILSC 290 - Professional Military Development (1-5 cr)

An intensive but flexible course designed to allow selected students to qualify for the ROTC advanced course during the summer. This course includes an examination of the major elements of United States military history, leadership styles and principles, a comparison of various international military systems, as well as a broad range of military skills including drill and ceremonies, land navigation, first aid, tactics, use of military equipment, and physical conditioning. Prerequisite: Permission of the professor of military science. (SCC, SFCC)

# MUSIC

#### MUSC 100 - Music Fundamentals (3 cr)

Basics of music, including rhythm, melody and harmony, scales, keys, chords, and an introduction to the keyboard. (SFCC)

#### MUSC& 105 – Music Appreciation (5 cr)

Listening and understanding of common musical forms, idioms and styles; and how music relates to us today. (SCC, SFCC)

#### MUSC 106 – History of Popular Music (5 cr)

The development of popular American music from 1900 to the present. Pre-20th century influences and the development of jazz, blues, the swing era, rhythm and blues, rock and roll, country music, the British invasion, funk, electronic influences and fusion. (SCC, SFCC)

# MUSC 108 – Music and Cinema (5 cr)

This course examines the various functions of music in film and traces the historical development of film music. (SCC, SFCC)

#### MUSC 109 - World Music (5 cr)

This course explores several musical cultures throughout the world, including but not limited to Africa, the Americas, Asia, Near East, Europe and South Pacific. The course is designed to enhance student's appreciation for the diversity of music throughout the world as well as the people that perform it. Students gain an understanding of features in the music that distinguish one style from another and the cultural and social-historical factors that shape the development of music. Lectures, films, recordings and live presentations assist students in their understanding of course topics. Though a knowledge of music is helpful, a music background is not required for this course. (SCC, SFCC)

#### MUSC 111 – Improvisation I (4 cr)

Beginning and intermediate students learn the basics of improvisation. Linear and horizontal melodic concepts, including scales and modes, chords, inversions, alterations and harmonic progressions are presented. Students may register with any instrument. Prerequisite: AUDIO 116 or MUSC 100 or MUSC & 141. (SFCC)

#### MUSC 112 – Improvisation II (4 cr)

Students learn more advanced techniques of linear improvisation, including application of scales, modes, altered chords, chordal substitutions and harmonic progressions. Prerequisite: MUSC 111. (SFCC)

# MUSC 114 – Contemporary Harmony (3 cr)

This course includes the study of harmony as used in contemporary popular music, jazz, commercial media and film, including chords, scales, harmonic progressions, the blues, chord scale relationships, improvisation theory, notation and dictation. Students develop aural skills through listening and analysis. Prerequisite: AUDIO 116 or MUSC& 141, and MUSC 166 or 180 and concurrent enrollment in MUSC 167 or 180. (SFCC)

#### MUSC 115 - Symphony Orchestra (1-3 cr)

Students perform an extensive repertoire of quality orchestral music from the Baroque era to the present. Each course may be taken up to three times. (SFCC)

# MUSC 124 – History of Jazz (5 cr)

A survey of jazz in which recent investigations in cultural anthropology and American history, as well as the traditional viewpoints of music history and theory, are reflected. (SCC, SFCC)

#### MUSC 127 – Chamber Singers (1-3 cr)

A select performing ensemble whose purpose is to study, practice and perform representative chamber music from the 16th through the 20th centuries. Each course may be taken up to three times. Prerequisite: Permission of instructor. (SFCC)

#### MUSC 134 – Jazz Combo (1 cr)

Jazz combos offer students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly, including tours, jazz festivals and professional engagements. Each course may be taken up to three times. (SFCC)

#### MUSC 139 – All College Chorus (1-2 cr)

Elementary work in mixed chorus ensemble singing together with study of appropriate choral literature. Each course may be taken up to three times. (SFCC)

# MUSC& 141 - Music Theory I (5 cr)

Students develop skills in writing and understanding correct musical notation, major and minor scales, and modes. Students write and apply intervals and triads to simple melodic and harmonic exercises. An emphasis is placed on the structural elements of music. (SFCC)

#### 224 MUSC& 142 – Music Theory II (5 cr)

Students continue to study scales and modes and their application to melodic and harmonic composition. Students employ the use of triads and seventh chords, including all inversions, in four-part harmonic progressions, and continue to develop aural recognition of scales, intervals and triads with an emphasis on melodic dictation, rhythm, and ear training. Prerequisite: MUSC& 141. (SFCC)

#### MUSC& 143 – Music Theory III (5 cr)

This course focuses on modulation, secondary dominants and leading tone chords. Students are introduced to chromatic harmony, and analyze and write chorale-type compositions with an emphasis on the soprano/bass framework. Chordal analysis, including cadences and non-chordal tones, is emphasized. Aural recognition of scales, intervals and chords, with exercises in melodic dictation, rhythm, and ear training also are included. Prerequisite: MUSC& 142. (SFCC)

#### MUSC 144 - Commercial Music Groups (1 cr)

Students study and perform current popular music styles including rock, blues, fusion, top 40, country and standards. Each course may be taken up to three times. (SFCC)

#### MUSC 145 - Concert Band (1-3 cr)

Students perform an extensive repertoire of master works by composers from the Renaissance to the present. Each course may be taken up to three times. (SFCC)

#### MUSC 148 - Stage Band (1-3 cr)

Students study and perform modern trends and practices of jazz and related music areas. Individual music arrangements can be studied and created. Each course may be taken up to three times. (SFCC)

#### MUSC 151 - String Ensemble (1 cr)

This course is open to all students with reasonable proficiency on string instruments. Music performed surveys string repertoire for all combinations from masterworks of the baroque, classic, romantic and modern eras. Each course may be taken up to three times. (SFCC)

#### MUSC 166 – Functional Piano I (2 cr)

Students develop piano performance techniques relevant and practical for today's professional musician. Synchronized with MUSC 114, this course includes the study of scales, chords, voicings, harmonic progressions, chord/ scale relationships and basic comping, and improvisational techniques. This course is essential for all students of jazz and commercial music, regardless of their primary instrument. (SFCC)

#### MUSC 167 - Functional Piano II (2 cr)

Students develop piano performance techniques relevant and practical for today's professional musician. This course includes the study of scales, chords, voicings, harmonic progressions, chord/scale relationships and basic comping, and improvisational techniques. This course is essential for all students of jazz and commercial music, regardless of their primary instrument. Prerequisite: MUSC 166 or permission of instructor. (SFCC)

#### MUSC 170 - Fundamentals of Singing (1 cr)

Students study the fundamentals of singing through participation, performance and observation in a class setting. (SFCC)

# MUSC 171 – Advanced Fundamentals of Singing (2 cr)

Students continue to develop the technical skills of singing with an emphasis on the application of technique to repertoire. This course may be repeated up to three times, advancing in repertoire with the advice of the instructor. English, as well as other languages, will be included. Prerequisite: MUSC 170 or permission of instructor. (SFCC)

#### MUSC 176 – Beginner Piano Class I (2 cr)

This course provides a basic hands-on introduction to keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to music reading, rhythms, improvisations, technique, solo repertoire and group ensembles. This course is intended for the complete beginner or for students with little experience in piano. (SFCC)

#### MUSC 177 – Beginner Piano Class II (2 cr)

Students continue to develop keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to chord progressions, harmonization, transposition, and further development of sight-reading, two-handed rhythms, technique, solo repertoire and group ensembles. Prerequisite: MUSC 176 or permission of instructor. (SFCC)

#### MUSC 178 - Beginner Piano Class III (2 cr)

Students continue to develop keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to secondary chords, varied accompaniment patterns, and further development of sight-reading, two-handed rhythms, technique, solo repertoire and group ensembles. Prerequisite: MUSC 177 or permission of instructor. (SFCC)

#### MUSC 180 – Private Lessons (1 cr)

Private instruction on voice or instrument. A study of the fundamentals of tone production, technical requirements and overall musicianship, with an emphasis on solo literature and performance. Each course may be taken up to three times. (SFCC)

# MUSC 182 - Guitar Class I (1 cr)

Students learn the fundamentals of note reading, basic theory and technical skills for both hands using a fingerstyle approach. Students are required to furnish their own instrument. (SFCC)

#### MUSC 204 – Arranging I (5 cr)

The study of harmony and arranging techniques in the contemporary jazz ensemble. This includes voicings, progressions, styles, forms and contrapuntal ideas. Prerequisite: MUSC 114 and MUSC 166, or MUSC& 141. (SFCC)

#### MUSC 210 – Improvisation III (5 cr)

Students learn advanced improvisation skills with an emphasis on the current trends of working professionals. Students analyze recorded solos and gain transcription experience. Prerequisite: MUSC 112. (SFCC)

#### MUSC 211 – Improvisation IV (5 cr)

Students learn advanced concepts of improvisation including altered chords, altered scales, substitutions and analysis of recorded professionals. Prerequisite: MUSC 210. (SFCC)

#### MUSC 212 - Improvisation V (3 cr)

Students study advanced concepts of improvisation including altered chord scales and progressions. Students will analyze and perform contemporary jazz styles. Prerequisite: MUSC 211. (SFCC)

#### MUSC 214 – Contemporary Harmony II/Songwriting (5 cr)

This is a study of major pop/rock, folk/country, and adult contemporary musical styles and the writers, producers, and artists who shape the music. Learn about many musical styles while striving to define your own. Develop instrumental and lyric songwriting techniques. Prerequisite: MUSC 114, 167 and concurrent enrollment in AUDIO 217, 218 and 213 or 255. (SFCC)

#### MUSC 215 – Symphony Orchestra (1-3 cr)

Students perform an extensive repertoire of quality orchestral music from the Baroque era to the present. Each course may be taken up to three times. Prerequisite: MUSC 115. (SFCC)

#### MUSC 227 – Chamber Singers (1-3 cr)

A select performing ensemble whose purpose is to study, practice and perform representative chamber music from the 16th through the 20th centuries. Each course may be taken up to three times. Prerequisite: Permission of instructor. (SFCC)

#### MUSC 234 – Jazz Combo (1 cr)

Jazz combos offer students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly, including tours, jazz festivals and professional engagements. Each course may be taken up to three times. Prerequisite: MUSC 134 or permission of instructor. (SFCC)

#### MUSC 235 - History of Western Music I (4 cr)

Development of music in Western culture from classical antiquity through the Italian Renaissance. (SCC)

#### MUSC 236 - History of Western Music II (4 cr)

Development of music in Western culture from the advent of the Baroque style through late 18th century Viennese period. (SCC)

#### MUSC 237 – History of Western Music III (4 cr)

Development of music in Western culture from early 19th century romanticism to the present. (SCC)

# MUSC 239 - All College Chorus (1-2 cr)

Elementary work in mixed chorus ensemble singing together with study of appropriate choral literature. Each course may be taken up to three times. (SFCC)

#### MUSC& 241 – Music Theory IV (5 cr)

This course focuses on practical writing and analytic experience in diatonic and chromatic harmony used during the 18th and 19th centuries. Students study musical forms, basics for arranging, orchestrating and composing, ear training and sight singing in solfege. Prerequisite: MUSC& 143 or permission of instructor. (SFCC)

#### MUSC& 242 – Music Theory V (5 cr)

Students continue to study music theory with further discussion on secondary functions, modulatory techniques, chromaticism, altered and borrowed chords, mode mixtures, augmented sixth chords and modulations, ear training and sight singing. Students compose the exposition of a piano sonata. Prerequisite: MUSC& 241. (SFCC)

#### MUSC& 243 - Music Theory VI (5 cr)

Students continue to study the harmonic vocabulary and elements in late romanticism and the 20th century, impressionism, scales, parallelism, pandiatonicism, set theory, 12-tone technique, serialism, electronic music, advanced sight singing and ear training. Prerequisite: MUSC& 242. (SFCC)

# MUSC 244 - Commercial Music Groups (1 cr)

Students study and perform current popular music styles including rock, blues, fusion, top 40, country and standards. Each course may be taken up to three times. Prerequisite: MUSC 144 or permission of instructor. (SFCC)

# MUSC 245 - Concert Band (1-3 cr)

Students perform an extensive repertoire of master works by composers from the Renaissance to the present. Each course may be taken up to three times. Prerequisite: MUSC 145. (SFCC)

#### MUSC 248 – Stage Band (1-3 cr)

Students study and perform modern trends and practices of jazz and related music areas. Individual music arrangements can be studied and created. Each course may be taken up to three times. Prerequisite: MUSC 148. (SFCC)

## MUSC 251 – String Ensemble (1 cr)

This course is open to all students with reasonable proficiency on string instruments. Music performed surveys string repertoire for all combinations from masterworks of the baroque, classic, romantic and modern eras. Each course may be taken up to three times. (SFCC)

#### MUSC 276 - Advanced Piano Class I (2 cr)

Students learn advanced keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to basic conducting and further development of keyboard technique, harmonization, transposition, improvisation, sight-reading, solo repertoire, and group ensembles. Prerequisite: MUSC 178 or permission of instructor. (SFCC)

#### MUSC 277 – Advanced Piano Class II (2 cr)

Students continue to develop advanced keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to varied chord progressions using secondary chords and inversions. The course includes group discussions on performance anxiety and related issues, and further development of keyboard technique, harmonization, transposition, improvisation, sight-reading, solo repertoire and group ensembles. Prerequisite: MUSC 276. (SFCC)

#### MUSC 278 - Advanced Piano Class III (2 cr)

Students continue to develop advanced keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to chorale score reading, accompaniment and further development of keyboard technique, harmonization, transposition, improvisation, sight-reading, solo repertoire and group ensembles. Prerequisite: MUSC 277. (SFCC)

#### MUSC 280 - Private Lessons (1 cr)

Private instruction on voice or instrument. A study of the fundamentals of tone production, technical requirements and overall musicianship, with an emphasis on solo literature and performance. Each course may be taken up to three times. (SFCC)

#### MUSC 282 - Guitar Class II (1 cr)

Students continue to develop note reading, basic theory and technical skills for both hands using a fingerstyle approach. Students are required to furnish their own instrument. Prerequisite: MUSC 182 or permission of instructor. (SFCC)

# NATURAL RESOURCE MANAGEMENT

#### NATRS 101 - Environmental Conservation (5 cr)

This course is a general introductory course designed to provide students with a basic knowledge of the principles of conservation. Emphasis is on the renewable natural resources, soil, water, forest, range, wildlife and recreation. (SCC)

#### NATRS 110 - Forest Plant Science (5 cr)

This course is designed to give the student basic knowledge concerning the biological principles and relationship between plants and man. A basic knowledge of the plant-dependent world ecosystem that supports man is emphasized. (SCC)

#### NATRS 111 – Natural Resources Seminar (3 cr)

Students obtain a basic introduction to the field of natural resources. Employment opportunities, salaries and typical job duties are discussed. The organizational structure of state and federal agencies, and selected topics in natural resources are presented. Leadership skills and responsibilities are practiced by participation in the Natural Resources Association. Prerequisite: Natural resources students only or permission of instructor. (SCC)

#### NATRS 112 – Natural Resources Mathematical Applications (5 cr)

Students learn basic arithmetic and algebra skills necessary for application in the fields of natural and water resources. (SCC)

#### **NATRS 120 – Basic Computer Applications in Natural Resources (2 cr)** This is a beginning course in the use of computers in natural resource management. Use of specific software in a setting similar to on-the-job computer use in natural resource management such as word processing, presentation and the Internet is emphasized. (SCC)

#### NATRS 121 – Natural Resources Seminar (3 cr)

This course is a continuation of the concepts presented in NATRS 111. Leadership, human relations and personnel supervision skills are emphasized. Prerequisite: Natural resources students only or permission of instructor and concurrent enrollment in the natural resources program. (SCC)

#### NATRS 122 – Natural Resources Trigonometric Applications (5 cr)

Students learn the fundamentals of graphing, statistics, geometry and trigonometry with emphasis on practical applications to the fields of natural and water resources. Prerequisite: NATRS 112 with a grade of 1.7 or higher or equivalent. (SCC)

#### NATRS 130 – Chainsaw Operation, Maintenance and Safety (3 cr)

Students learn the proper operation, care, maintenance and safety in the use of chainsaws. Practical applications and demonstrations are emphasized. (SCC)

#### NATRS 131, 132, 133 - Field Projects in Natural Resources (3 cr ea)

This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

#### NATRS 201 – Forest Protection (5 cr)

Students learn basic principles of fire control and behavior, and the control and identification of insect and disease damage to forest trees. (SCC)

#### NATRS 202 – Dendrology (5 cr)

This class combines lecture, lab, field trips and a variety of laboratory plant identification exercises. The majority of the class is held at Mt. Spokane State Park and the Newman Lake area describing and identifying forest plants. (SCC)

#### NATRS 203 - Forest Harvesting and Products (5 cr)

This course provides an overview of the wood products industry from the harvesting of raw material through its processing into a product. Students realize the connection between product specifications and their impact on harvesting equipment and techniques. Safety procedures when working around harvesting and processing equipment are practiced and stressed. Prerequisite: NATRS 204, 205 or permission of instructor. (SCC)

#### NATRS 204 - Maps and Aerial Photo Interpretation (5 cr)

Students learn the basic principles of interpretation and field use of aerial photographs relating to natural resources. Field use of planimetric and topographic maps is emphasized. Prerequisite: NATRS 112 or permission of instructor. (SCC)

#### NATRS 205 — Surveying (5 cr)

Students learn elementary surveying, including fundamentals of forest surveying, and use and care of equipment. Emphasis is on use of staff compass, Abney level, clinometer, tapes, transit and stadia rod. Prerequisite: NATRS 122 or permission of instructor. (SCC)

# NATRS 207 – Wildlife Biology (5 cr)

This is a practical course designed to provide students with the basic principles of wildlife ecology, habitat, population dynamics, behavior and management practices. (SCC)

#### NATRS 209 - Silviculture (5 cr)

Students learn basic principles of timber stand improvement, cutting practices and forest regeneration methods. Prerequisite: ENVS 110, NATRS 112, 209, 215 or permission of instructor. (SCC)

#### NATRS 210 - Environmental Soil Science (5 cr)

This is a basic course in forest soils. It is designed to give the student a basic knowledge of the properties, characteristics and functions of soils found in natural conditions. Emphasis is placed on the relationships between native vegetation and noncultivated soils. (SCC)

#### NATRS 215 - Forest Measurements (5 cr)

Students learn basic principles of forest and natural resources sampling and measurement. Field work emphasizes correct use of forest measurements tools and instruments. Class work emphasizes calculations using measurements taken in the field. Prerequisite: NATRS 112 or permission of instructor. (SCC)

#### NATRS 216 — Forest Inventory (5 cr)

This course furthers the principles of forest measurements with emphasis on cruising, forest inventory, volume calculations and forest-type mapping. Prerequisite: NATRS 112 or permission of instructor. (SCC)

#### NATRS 217 - Freshwater Fisheries Biology (5 cr)

Students learn to identify fish and study biology, ecology, habitat requirements and management, hatchery propagation, stream enhancement and restoration procedures, and selected aquatic insect and riparian plant identification. (SCC)

# NATRS 220 — Introduction to Geographic Information Systems for Natural Resources (4 cr)

Students learn the basics of the ArcGIS suite of products and integrate spreadsheets and databases into geographic information systems (GIS) to analyze common problems in natural resources. Prerequisite: NATRS 120 or permission of instructor. (SCC)

#### NATRS 221 – Applications in Geographic Information Systems (5 cr)

This course builds on the basic geographic information systems (GIS) skills developed in NATRS 220 using ArcGIS software and extensions for GIS applications in natural resources management. Cartographic concepts are introduced. Prerequisite: NATRS 220 or permission of instructor. (SCC)

#### NATRS 225 - Natural Resources Occupational Experience (1-12 cr)

This practical course assists students in pursuing careers in natural resources. Students learn to complete specific employment applications, resumes and letters of inquiry, and employment portfolios. Students also contact employers for interviews and follow-up. Students are required to evaluate their work experience and submit comprehensive written and oral reports. Prerequisite: Natural resources students only or permission of instructor and concurrent enrollment in the natural resources program. (SCC)

#### NATRS 230 - Global Positioning Systems (3 cr)

This course teaches students to use global positioning systems to collect, prepare, and map static and kinematic data. Using GPS to find points in the field is practiced as well. Prerequisite: NATRS 120, 204, 122 or permission of instructor. (SCC)

# NATRS 231, 232, 233 - Field Projects in Natural Resources (3 cr ea)

This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

#### NATRS 235 - Advanced Surveying Applications (3 cr)

Students review skills from NATRS 220 and learn advanced skills necessary to complete surveying projects often performed by technicians in natural resources and environmental science fields. This course includes the use of transits, stadia, levels, electronic surveying instruments and field data recorders. Skill areas include taking measurements, recording field notes, evaluating data and preparing maps. Prerequisite: NATRS 204, 220. (SCC)

# NATRS 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# NONINVASIVE CARDIOVASCULAR TECHNOLOGY

#### NCT 113 – Electrophysiology (4 cr)

Students are introduced to the field of cardiovascular technology, basic cardiac anatomy, physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences to support these concepts also are included. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### NCT 116 - Acute Coronary Syndrome (1 cr)

A study of the nations number one killer in its acute phase. Pathophysiology of atherosclerosis. The stable versus the unstable patient. Vulnerable plaque types. STEMI versus NSTEMI patient presentations. The national door to balloon initiative. 12 lead EKG recognition of the signs of ischemia/ infarct patterns. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### NCT 117 - Cardiovascular Pharm 1 (1 cr)

Introduction to cardiovascular pharmacology. A review of control of heart rate, blood pressure, and cardiac output and the common drug groups employed to manipulate these parameters. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### NCT 123 - History and Physical (3 cr)

This course introduces the concepts essential to the interpretation of the cardiovascular history and physical examination. The history and physical findings are related to the basic cardiac diseases (coronary artery disease, heart valve abnormalities and ventricular function). The role of the history and physical examination are explored in the performance and interpretation of the exercise tolerance test. Prerequisite: Enrollment in one of the cardiovascular programs or respiratory care and concurrent enrollment in ICT 124. (SCC)

# NCT 125 - Hemodynamics (2 cr)

Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

# NCT 126 – Technical Skills/Reading Hemodynamics (1 cr)

Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in ICT 125. Prerequisite: Permission of instructor. (SCC)

#### NCT 127 – Cardiovascular Pharm 2 (1 cr)

Continuation of ICT 117 Intro to CV Pharm. Advanced Cardiac Life Support drugs are introduced. Pharmacy math is introduced. Pharmacy law is studied. Principles of IV therapy are introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

# NCT 128 – Technical Skills/Pharmacology (1 cr)

Supports ICT 127 concepts. Case studies of patients during cardiac emergencies will be evaluated for appropriate drug selection. Pharmacy math calculations will be taught. IV therapy techniques will be taught. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### NCT 133 - ECHO Fundamentals (5 cr)

Introduction to the basic principles and application of the Doppler and echocardiographic procedures. The anatomy, image assessment, hemodynamics and clinical applications of cardiac ultrasound are emphasized. Laboratory experiences are provided. Prerequisite: Admission to program. (SCC)

#### NCT 139 – Surgical Asepsis (1 cr)

Surgical asepsis for health care providers. This class will prepare the student to create a sterile field. Gown and glove themselves and others. Procedural awareness of working in a sterile field will be developed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

# NCT 140 – Technical Skills/Surgical Asepsis (1 cr)

This class supports ICT 140. The skills of surgical asepsis and infection control are taught. Working in a sterile field and gowning and gloving are taught. Develop a surgical conscience. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

# NCT 141 – Computers for the CV Technologist (3 cr)

Students explore applications in medicine and develop the ability to use the microprocessor for word processing database management and statistical analysis. Principles of statistics are reviewed and applied through database management. Prerequisite: Concurrent enrollment in NCT 143. (SCC)

#### NCT 142 - Noninvasive Cardiovascular Clinical (4 cr)

Students develop basic imaging skills by imaging normals within the SCC echocardiography laboratory. Clinical requirements are discussed and defined. The role and job description of the noninvasive cardiovascular technologist are evaluated. Prerequisite: Concurrent enrollment in NCT 143. (SCC)

#### NCT 143 - Noninvasive Cardiovascular Clinical Observation (6 cr)

Students spend four weeks in a clinical setting. Two weeks are spent in an echocardiography laboratory assisting staff in patient preparation; imaging time is provided when appropriate. Two weeks are spent in a noninvasive electrophysiology laboratory performing ECGs, exercise tolerance testing, Holter monitoring and pacemaker checks under the direction of a staff technologist. Weekly clinical seminars are conducted with SCC staff. A clinical consciousness is developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Completion of NCT 133 or permission of instructor. (SCC)

#### NCT 251 – Echocardiography Clinical I (4 cr)

Students obtain hands-on experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Concurrent enrollment in NCT 253. (SCC)

Students utilize the fundamentals presented in the first year of noninvasive cardiovascular technology to evaluate acquired cardiovascular disease states. This course incorporates all forms of noninvasive cardiovascular testing with emphasis on the performance and interpretation of M-mode, twodimensional and Doppler echocardiography. Related physician lectures, clinical and laboratory experiences are presented. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### NCT 261 - Echocardiography Clinical II (4 cr)

Students utilize the skills learned in NCT 251 and obtain advanced experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Concurrent enrollment in NCT 263. (SCC)

#### NCT 263 - Echocardiography II (11 cr)

Students utilize the fundamentals presented in the first year of noninvasive cardiovascular technology to evaluate congenital heart disease. This course continues with the study of cardiac noninvasive diagnostics with emphasis on specialty applications and new developments. Statistics, research and quality control methods are utilized. Related physician lectures, clinical and laboratory experiences are presented. Prerequisite: NCT 253. (SCC)

#### NCT 273 - Echocardiography Clinical III (13 cr)

Students practice clinical skills previously developed through active participation in a noninvasive cardiovascular laboratory. This full-time clinical internship is completed in an affiliated local or out-of-town hospital. Clinical skills necessary to the performance and evaluation of the M-mode, twodimensional and Doppler Echocardiogram are emphasized. Written reports, review of current literature and attendance at conferences are required. Prerequisite: NCT 263. (SCC)

#### NCT 299 - Independent Studies in Noninvasive Cardiovascular Technology (1-13 cr)

This course is designed for students wishing to complete specialized studies in the field of noninvasive cardiovascular technology. Objectives are developed jointly by the student and instructor. Credit hours are assigned according to the length of time required to complete the objectives. Credits are agreed upon at the time of enrollment. Students complete specialized clinical internships in pediatric echocardiography, color flow mapping or vascular technology. Prerequisite: Current enrollment or graduate of NCT, or permission of instructor. (SCC)

# NURSING PROGRAM (R.N., L.P.N.)

#### NURS 107 – Women and Health (1-2 cr)

This course is an overview of contemporary women's health care topics and promotes the development of a critical framework for informed personal decision making in the health care system. Topics include women and cancer, women and heart disease, menopause, women and mental health, diet and exercise recommendations for women. (SCC)

#### NURS 116 - Nursing Foundations (9 cr)

This course introduces nursing emphasizing the life cycle, self-care concepts in the health-illness continuum, and how the nursing process is utilized when providing direct patient care. General topics include basic hygiene and safety, legal and ethical aspects, concepts of aging, and skill development for assisting with activities of daily living. Prerequisite: Admission requirements. (SCC)

#### NURS 121 – Cultural Diversity in Health Care (1 cr)

This course provides a foundation for applications of cultural concepts in the health care setting. Considerations are given to the impact of biopsychosocial, ethical, legal, spiritual and cultural influences on the need to promote, maintain and restore health of the client/family unit. Prerequisite: Permission of instructor and concurrent enrollment in a health care program. (SCC)

#### NURS 125 - Introduction to Medical/Surgical Nursing (8 cr)

This course introduces the health-illness continuum and enables students to adapt health maintenance concepts toward the restoration of dysfunctions through utilization of the nursing process. Restoration of optimal health is discussed as it relates to each state of development throughout the life cycle. General and specific nursing actions, related clinical competencies, dietary modifications, human relationships and health teaching are included. Prerequisite: Successful completion of prior quarter coursework. (SCC)

#### NURS 126 – Pharmacology For Nurses (2 cr)

This course is an overview of the most recent advances in clinical pharmacology for nurses. It updates drugs and nursing implications for drugs commonly used in hospitals today. This comprehensive course categorizes drugs by classes. Prerequisite: NURS 116, 131 and concurrent enrollment in NURS 125. (SCC)

#### NURS 131 — Intravenous Therapy Concepts (1 cr)

Students learn the physiological parameters for fluid and electrolyte therapy. In addition, students learn to assess the client/patient for fluid balance, apply the principles of infection control procedures and understand legal implications. Prerequisite: Successful completion of prior quarter coursework or permission of instructor. (SCC)

#### NURS 135 – Parental and Perinatal Nursing (5 cr)

This course emphasizes parents as the basic unit and child rearing as a natural experience. Normal aspects of maternal and child health is stressed; however, consideration is given to the recognition of complications. Physiological, psychological, social and cultural influences are discussed and analyzed so students understand the effect on all members of the family. Concepts of health maintenance, growth and development, and client teaching is emphasized. Students develop communication skills and nursing techniques. Prerequisite: Successful completion of prior quarter coursework. (SCC)

#### NURS 136 — Mental Health Nursing (5 cr)

Students apply concepts of mental health and illness to the promotion, maintenance and restoration of health for clients, families and significant to others throughout the life cycle. Using dynamic interaction between the nurse and client, concepts of communication, personality, feelings, behavior, self-awareness, group process and the process of interpersonal relationships are utilized to promote self-care and intervene in major problems related to psychotic and nonpsychotic behavior. Concepts related to ethical/ legal, physiological, cultural and spiritual issues, and safety are integrated throughout the course. Application of mental health concepts are provided for acute care settings, extended care facilities and community health agencies. Prerequisite: NURS 116, 131, 125, 126. (SCC)

#### NURS 141 – Professional Relationships (1 cr)

This course is required for students planning to write the Licensed Practical Nurse Board Exams. Career opportunities and legal aspects of the graduate are emphasized. Prerequisite: Successful completion of prior quarter coursework. (SCC)

#### NURS 145 — Medical Surgical Nursing Concepts (12 cr)

This course promotes maintenance and restoration of health throughout the life cycle. The body systems approach is used to further focus on related health and illness problems. Concepts of safety, ethical/legal, physiological, cultural and spiritual care are integrated into the course. Orem's Theory of self-care plays a major role in meeting the needs of the client in the clinical setting, and the application is accomplished in an acute care setting. Students observe the growth and development of the ill child vs. the well child in a pediatric unit and/or day care center. Student competencies are identified for the nursing process, technical skills, communications, and the roles and responsibilities of client teaching. Prerequisite: Successful completion of prior quarter coursework. (SCC)

#### NURS 214 — Advanced Pharmacology For Nurses (2 cr)

This course is designed to build on prior pharmacologic study of actions and effects of drugs on the human system across the life span. The course will include advanced pharmacology concepts including drug actions and toxicities of botanical preparations. Drugs of choice and treatment strategies for all major diseases will be addressed. Prerequisite: NURS 116, 125, 126, 131, 135, 136, 141, 145. (SCC)

#### NURS 215 – Advanced Nursing Concepts I (10 cr)

This course enables students to adapt concepts of health and illness toward the promotion, maintenance and restoration of health for clients and their families throughout the life cycle. Using the nursing process, major problems related to biopsychosocial issues, motion and oxygen-carbon dioxide exchange are discussed as they relate to the client, family and significant others emphasizing self-care. Safety, ethical/legal, physiological, cultural and spiritual concepts are integrated with each major health problem. Application of these concepts is provided for in acute care and extended care facilities, and community health agencies. As the student cares for clients and their families in a clinical setting, competencies are identified for the nursing process, client education, technical skills, communication, leadership, and roles and responsibilities. Prerequisite: Satisfactory completion of prior quarter coursework. (SCC)

#### NURS 216 — Health Care in the Community (2-3 cr)

This course enables students to provide services to the community in the health care field. Students learn the value of contributing back to the community in which they live and work by volunteering in a community health service agency. At the end of the course, students display skills in communications, problem solving, responsibility and global awareness. Students contribute a minimum of 11 hours lecture and 33 hours clinical for 2 credits or 11 hours lecture and 66 hours clinical for 3 credits. Prerequisite: NURS 145 and concurrent enrollment in NURS 215, 225 or 235. (SCC)

#### 228 NURS 225 – Advanced Nursing Concepts II (10 cr)

This course enables students to adapt concepts of health and illness toward the promotion, maintenance and restoration of health for clients, families and small groups throughout the life cycle. Using the nursing process, major problems related to genitourinary, integumentary and major sensory organs, digestion and gastrointestinal, and advanced maternal-child concepts are discussed as they relate to the client, family and significant others emphasizing self-care. Safety, ethical/legal, physiological, cultural and spiritual concepts are integrated with each major health problem. Application of these concepts is provided in acute care and extended care facilities, and community health agencies. As the student cares for clients and their families in a clinical setting, competencies are identified for the nursing process, client education, technical skills, communication, leadership, and roles and responsibilities. Prerequisite: Successful completion of prior quarter coursework. (SCC)

# NURS 226 - Health Care Management (2 cr)

This course emphasizes management theories, legal issues, ethical implications and political impacts on leadership, supervision and delegation. Prerequisite: Satisfactory completion of prior quarter coursework or permission of department chair. (SCC)

#### NURS 231 - Advanced Intravenous Therapy Concepts (2 cr)

This course introduces advanced concepts of intravenous infusion therapy. Theory related to intravascular site selection and access, maintenance of various vascular access devices, intravenous nutritional support, administration of blood/blood products, antineoplastic agents and pain management products are presented and discussed. Special considerations related to legal implications of intravenous infusion therapy, intravascular medication administration, home intravenous support therapy and infusion therapy in pediatric and gerontological clients are addressed. Mathematical calculations related to intravenous solution and medication administration are reviewed. Prerequisite: NURS 131 or permission of instructor. (SCC)

#### NURS 235 - Advanced Nursing Concepts III (11 cr)

This course enables students to adapt concepts of health and illness toward the promotion, maintenance and restoration of health for clients, families and small groups throughout the life cycle. Using the nursing process, major problems related to genitourinary, integumentary and major sensory organs, digestion and gastrointestinal, and advanced maternal-child concepts are discussed as they relate to the client, family and significant others emphasizing self-care. Safety, ethical/legal, physiological, cultural and spiritual concepts are integrated with each major health problem. Application of these concepts is provided in acute care and extended care facilities, and community health agencies. As the student cares for clients and their families in a clinical setting, competencies are identified for the nursing process, client education, technical skills, communication, leadership, and roles and responsibilities. Prerequisite: Successful completion of prior quarter coursework. (SCC)

# NUTRITION

#### NUTRI 150 - General Nutrition (3 cr)

Fundamental concepts, theories and terminology of nutrition, including all classes of essential nutrients with respect to properties, functions, deficiencies, toxicities, dietary requirements and major food sources are covered in this class. Current controversial applied nutrition topics are included in many subject areas. (SCC, SFCC)

#### NUTRI 251 - Nutrition (5 cr)

The science that studies food and its relation to human health and performance. The various nutrients and their functions in human metabolism are examined. Essential nutrients are studied with respect to properties, functions, deficiencies, toxicities, dietary requirements and major food sources. Prerequisite: BIOL& 160 and CHEM& 122 or permission of instructor. (SCC, SFCC)

# **OCEANOGRAPHY**

#### OCEA& 101 - Intro to Oceanography (5 cr)

This course introduces students to the principles of Marine Science; the physical and chemical properties of Seawater; the fundamentals of Biology; the Organisms of the Sea; the structure and function of Marine Ecosystem; and the relationship of Humans to the Sea. (SCC)

#### See program/course abbreviation key on page 143.

# **ORTHOTIC-PROSTHETIC TECHNICIAN**

#### **OR-PR 111 – Prosthetic Tools and Materials (4 cr)**

Become familiar with prosthetic bench tools and equipment, acquire basic proven tool operation skills, classify the general areas of the lab and use of special prosthetic equipment in the lab. As a prosthetic technician students work with many materials such as metals, leather, wood, plastic, etc. This course introduces students to the materials commonly used in prosthetics. (SFCC)

#### OR-PR 112 - Related Human Anatomy (3 cr)

In order for the orthotics and prosthetics technician to correctly fabricate orthoses and prostheses, it is necessary for him/her to have a basic knowledge of muscles and bones of the human body. To properly fabricate belowthe-knee prosthetic devices in accordance with the measurement chart, a basic understanding of the anatomy of the below-the-knee residual limb is essential. Prerequisite: OR-PR 111. (SFCC)

#### OR-PR 114 - Below Knee Prosthetics (10 cr)

The technician learns to identify lower limb prosthetic components, interpret measurement charts, prepare PVA sleeves, lay up PTB socket, fabricate PTB soft insert, laminate PTB socket utilizing vacuum, prepare SACH feet, statically align and assemble unfinished PTB, fabricate the PTB knee cuff, fabricate the PTB waist belt with suspension attachment, duplicate alignment, shape and hollow out prosthesis, lay up and laminate the PTB prosthesis, and finish and assemble the below-knee prosthesis. Prerequisite: OR-PR 111, 112. (SFCC)

#### OR-PR 122 - Related Anatomy of the Above Knee Amputation (3 cr)

A basic understanding of anatomy of the above-the-knee residual limb. Prerequisite: OR-PR 111, 112, 114. (SFCC)

#### OR-PR 124 — Advanced Below Knee Prosthetics (4 cr)

Identify endoskeletal components, fabricate model, check socket, and liner for endoskeletal prosthesis, laminate endoskeletal socket, assemble, align and shape endoskeletal prosthesis. Prepare plaster model for locking liner prosthesis, prepare shuttle lock installation, fabricate check socket, assemble and align temporary prosthesis, transfer alignment, fabricate definitive socket, complete alignment transfer. Syme and partial foot prosthetics (discussion). Prerequisite: OR-PR 111, 112, 114, 122. (SFCC)

#### OR-PR 126 - Above-the-Knee Prosthetics (10 cr)

Interpret A-K information and measurement charts, make a plaster of Paris model for A-K socket. Prepare and lay up the A-K socket, laminate the socket, attach socket into extension block, statically align A-K prosthesis adjustable leg, make flexible leather belt, metal band, and attach hip joint, duplicate alignment of A-K prosthesis, and finish and assemble prosthesis. Prerequisite: OR-PR 111, 112, 114, 122, 124. (SFCC)

#### OR-PR 132 - Related Anatomy (Upper Extremity) (2 cr)

In order for the student to fabricate upper-extremity prosthetic devices in accordance with measurement charts, a basic understanding of the anatomy of upper extremity residual limbs is essential. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126. (SFCC)

#### OR-PR 134 - Below Elbow Prosthetics (8 cr)

Students learn to identify and know the function of currently used upper limb prosthetic components, be able to interpret prosthetic measurement charts, fabricate a below elbow prosthesis as a long residual limb, and make a prosthesis for a short below elbow residual limb. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126, 132. (SFCC)

#### OR-PR 136 - Above Elbow Prosthetics (7 cr)

Students learn to fabricate an AE prosthesis that is functional for the above-elbow amputee, and becomes knowledgeable in the check socket fabrication used on AE fittings. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126, 132, 134. (SFCC)

#### OR-PR 138 – Clinical Prosthetics (6 cr)

The prosthetic student practices fabrication skill in an off-campus prosthetic laboratory. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126, 132, 134, 136. (SFCC)

#### **OR-PR 141 — Orthopedic Equipment and Materials (4 cr)**

In order to become proficient at fabricating orthoses a student must be able to identify the function and proven choice of orthotic tools. Learning the best choice of equipment is critical to accurate fabrication, to be able to identify basic orthotic components and demonstrate mastery of basic orthotic metal working skills. Prerequisite: OR-PR 141. (SFCC)

#### OR-PR 142 - Spinal Anatomy Related to Orthotics (3 cr)

In order for the orthotics and prosthetics student to correctly fabricate orthoses and protheses, it is necessary for him/her to have basic knowledge of muscles and bones of the human body. To properly fabricate belowthe-knee prosthetic devices in accordance with the measurement chart, a basic understanding of the anatomy of the below-the-knee residual limb is essential. Prerequisite: OR-PR 141 (SFCC)

#### OR-PR 144 - Spinal Orthotics (10 cr)

The student fabricates the metal framework of the lumbo-sacral orthosis, learn to cover a LS orthosis with leather, and fabricate a thoraco-lumbar orthosis and cover with leather. Prerequisite: OR-PR 141, 142. (SFCC)

#### OR-PR 152 - Foot and Ankle Skeletal Structure (3 cr)

In order to fabricate effective shoe modification and orthoses for control of the ankle and foot, a student will aquire a basic understanding of the foot-ankle skeletal structures. Prerequisite: OR-PR 141, 142, 144. (SFCC)

#### **OR-PR 154 — Orthotic Shoe Fabrications (4 cr)**

It is necessary for a student to develop skills in providing a base of support for the foot, to properly apply sole wedges as per prescription, fabricate shoe buildups of crepe or other material, and to accurately fabricate a foot orthoses (arch-support) per prescription. Prerequisite: OR-PR 141, 142, 144, 152. (SFCC)

#### OR-PR 156 - Ankle-Foot Orthosis (10 cr)

Interpret ankle-foot orthometry, shape stirrup to shoe and ankle, assemble an AFO without tibial torsion, with tibial torsion, fabricate leather work, and have a basic understanding of the varus and valgus corrective straps for the ankle. Prerequisite: OR-PR 141, 142, 144, 152, 154. (SFCC)

#### **OR-PR 162** – Related Anatomy for the Above Knee Orthotics (1 cr)

A basic understanding of anatomy for the orthotics limbs. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156. (SFCC)

#### OR-PR 164 - Above the Knee Orthotics (8 cr)

Interpret the knee-ankle-foot orthometry form and layout KAFO, construct metal work with and without tibial torsion of a KAFO, fabricate a KAFO with growth extensions, fabricate the leather work for the KAFO and fabricate knee control pads used in a KAFO. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162. (SFCC)

#### **OR-PR 172** – Upper Extremity Anatomy Related to Orthotics (1 cr)

A basic understanding of upper extremity anatomy related to orthotics. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162, 164. (SFCC)

#### **OR-PR 174 – Upper Extremity Orthotics (7 cr)**

The student learns to identify wrist, hand and forearm anatomy; identify upper extremity components and interpret the orthometry forms; fabricate basic hand orthosis, wrist-hand orthosis (WHO), and learn vacuum forming of WHO. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162, 164, 172. (SFCC)

#### OR-PR 178 - Clinical Orthotics (6 cr)

In order to become proficient in fabricating orthotic devices, it is required that you practice your skills in an actual laboratory setting. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162, 164, 172, 174. (SFCC)

# PALEONTOLOGY

#### PALEO 103 – Dinosaur Paleontology (5 cr)

Provides an overview of the history of dinosaur exploration and recovery with short biographies of the great dinosaur biologists and hunters. Provides a discussion of the differences between dinosaurs and other animals. Discusses current theories of dinosaur metabolism and life style. Provides audio-visual materials on well-known dinosaur collecting sites and museums. The CCS paleontological collection includes actual dinosaur bones and teeth, as well as invertebrate and plant fossils contemporary with the dinosaurs. These provide hands-on experiences. There are opportunities for preparation of molds and casts of fossil material. Discusses various extinction theories. Prerequisite: BIOL& 160 or permission of instructor. (SFCC)

# PARALEGAL

#### LA 100 – Legal Careers Orientation (1 cr)

This course assists students in choosing careers in the legal field. Students acquire professional development plans. Prerequisite: 60 percentile/42 scaled score or better on the written section of the college's assessment test or receive a 2.0 grade or better in BT 109. (SCC)

#### LA 101 – Introduction to Paralegalism (2 cr)

Students learn the role of a paralegal in typical legal settings. Prerequisite: LA 100. (SCC)

#### LA 102 – Introduction to Legal Nursing (1 cr)

This course is a survey of the various roles for legal nurses across a spectrum of legal settings. Additionally, the course examines the professional demands, skills and expectations of the profession. Prerequisite: Permission of instructor/coordinator. (SCC)

#### LA 105 – Washington and Idaho Court Rules (3 cr)

COURSE DESCRIPTIONS

Students learn to research Washington Court Rules for district, superior, appellate and federal court systems. Interpretation and application of rules as they relate to law office procedures are emphasized. Students also learn to distinguish procedural from substantive rules. The interrelationship of rules to the Washington Digest, Revised Code of Washington (RCW) and Appellate Court requirements is presented. Students review the Idaho Rules of Civil Procedures and Idaho rules of Criminal Procedure emphasizing how these rules differ from the Federal Rules of Civil Procedure. (SCC)

# LA 110 – Legal Research and Writing (5 cr)

This course specifies practical use of legal resource tools on municipals, state and federal levels. Students learn to draft and prepare legal instruments and documents. Prerequisite: ENGL& 101. (SCC)

# LA 118 – Instrument Drafting (3 cr)

This intensive course is for students who are at the end of their paralegal/ legal nurse education. Frequent hands-on drafting, critiquing, editing, rewriting, and presenting representative legal instruments in litigation, domestic, criminal, real estate and commercial law are emphasized. Students can expect to experience a rapid improvement in their writing and thinking skills irrespective of their level prior to enrollment. Prerequisite: Permission of instructor. (SCC)

#### LA 120 – Law Office Computing (5 cr)

Students are introduced to high levels of streamlining and automating word processing functions in a law office. Macros, merging, creating, editing and formatting legal documents are emphasized. Prerequisite: Two college-level computer classes (CIS or LSEC) with a grade of 2.0 or higher; one of which must be LSEC 239 or 249. (SCC)

# LA 130 – Legal Ethics (1 cr)

This course introduces the rules of professional conduct that govern the professional practice of attorneys. Topics include conflicts of interest, confidentiality, professionalism, advertising and solicitation, client funds, etc. Prerequisite: Permission of instructor/coordinator. (SCC)

# LA 135 – Professional Effectiveness (1 cr)

Students learn professional effectiveness and how to become successful in the legal environment. Prerequisite: Permission of instructor/coordinator. (SCC)

#### LA 201 – Introduction to Probate (3 cr)

Students study wills and the necessary administration of various categories of estates. Prerequisite: LA 110. (SCC)

#### LA 207 – Domestic Relations and Estate Law (3 cr)

Students learn community property law characteristic of states in the western US. The law of marriage and dissolution of marriage is examined. Students study wills and the necessary administration of various categories of estates. (SCC)

#### LA 211 – Debtor-Creditor and Bankruptcy (3 cr)

Students study common law writs (attachments, garnishments, etc.), liquidation and reorganization bankruptcies, and the law of collection. Prerequisite: LA 110. (SCC)

#### LA 215 – Commercial Transaction (3 cr)

This course reviews the Uniform Commercial Code, commercial paper, bank and secure transactions, and electronic and bulk transfers. Various commercial statues are surveyed. (SCC)

#### LA 217 – Business Organizations (3 cr)

Students study partnership and corporation law for incorporation and administration of business in Washington state. (SCC)

#### LA 218 – Employment Law (3 cr)

Students review federal and state employment statutes governing hiring, termination, discrimination, affirmative action, workers' compensations and work-place safety. (SCC)

#### LA 219 – Criminal Law and Procedure (3 cr)

This course is an overview of the criminal justice system emphasizing the constitutional framework of criminal procedure. Prerequisite: LA 110. (SCC)

#### LA 220 – Torts (3 cr)

This course is a study of law that provides redress and compensation through a civil action. Prerequisite: LA 115 or concurrent enrollment. (SCC)

#### LA 221 – Property and Real Estate Transactions I (3 cr)

This course surveys Real Property Law covering estates in land. Real estate transactions including fundamentals of conveyancing law and statutes of frauds are emphasized. (SCC)

#### LA 225 – Trial Preparation and Procedures (3 cr)

Students study civil procedures and preparation of trial materials and their application to court rules. Pretrial preparation also is covered. (SCC)

#### 230 LA 230 – Insurance Law (3 cr)

This course covers basic insurance terminology and presents a working knowledge of insurance laws that are frequently encountered in today's law office. (SCC)

#### LA 240 - Special Issues Seminar (1-10 cr)

Students survey various areas of the law, learn skills in critical thinking, and review new and emerging issues. The substance of the course varies. Prerequisite: Permission of instructor/coordinator. (SCC)

#### LA 245 - Supervised Legal Work Experience (1-8 cr)

This course provides an in-depth clinical experience required for all students enrolled in the paralegal or legal nurse programs. Students are supervised in the clinic by attorneys and the legal program coordinator. Students receive thorough experience in law office practices and procedures. Progress is monitored through a combination of in-class seminars and individualized instructor contact. Grading option: Pass/fail. Prerequisite: Permission of instructor/coordinator. (SCC)

#### LA 267 - Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

#### LA 285 – Legal Office Internship (1-3 cr)

This course provides on-the-job learning experience for students while they attend classes at SCC. Students are able to apply the principles learned in the program to work in a law or law-related office under the supervision of an attorney or other legal professional. Grading option: Pass/fail. Prerequisite: Permission of instructor/coordinator. (SCC)

# PHARMACY TECHNICIAN

#### PHARM 101 – Introduction to Pharmacy Technician (3 cr)

This course introduces students to practice roles of pharmacy technicians. Employment opportunities, medical terminology, drug dosage forms, IV infusion, introduction to prescription interpretation and pharmacy law are emphasized. (SCC)

#### PHARM 115 - Mathematics for Pharmacy Technicians (5 cr)

Students are introduced to the application of basic math skills to real-life scenarios in pharmacy technician career fields. This course includes review of basic skills, followed by applications of dosage calculations for IVs, tablets, liquids and injectables. Students are also introduced to the applications of math skills determined by body surface area, chemotherapy and pediatric dosing. (SCC)

#### PHARM 119 - Pharmacology (3 cr)

Students learn to identify drugs normally used in hospital and retail pharmacy settings. Therapeutic drug classifications, routes of administration, codes and abbreviations, and correct drug name spelling are emphasized. Students also learn to distinguish between generic and trade (brand) names of drugs. (SCC)

# PHARM 122 – Advanced Pharmacology (5 cr)

Students learn to categorize the top 200 drugs into the major therapeutic classifications; distinguish between generic and brand names of drugs; identify accepted dosage forms, routes and dosing intervals of each drug. Human medical conditions relating to anatomy and physiology are emphasized. Prerequisite: PHARM 119. (SCC)

**PHARM 123 – Hospital Pharmacy Dispensing and Management (5 cr)** Students learn to assist the pharmacist with preparing and dispensing prescription drugs within the hospital setting. Verbal and written communication skills are emphasized. Students are introduced to appropriate inventory control and purchasing. Prerequisite: PHARM 101, 119 with a 2.0 grade or better. (SCC)

# PHARM 124 — Community Pharmacy Dispensing and Management (3 cr)

This course prepares students to develop the knowledge and skills needed to assist the pharmacist in preparing and dispensing prescription drugs in a community pharmacy setting. Verbal and written communications skills, prescription interpretation, and third party billing are emphasized. Prerequisite: PHARM 101, 119 with a 2.0 grade or better. (SCC)

#### PHARM 130 – Entering the Work Environment (2 cr)

This course prepares students for success in health careers. Students learn job-readiness skills including work ethics, professionalism, resume writing, communication skills and self-esteem. (SCC)

#### PHARM 131 - Pharmacy Law and Ethics (3 cr)

Students learn the law relating to pharmacy, agencies that regulate pharmacy practice and quality assurance. (SCC)

#### PHARM 132 – Community Pharmacy (6 cr)

The course introduces students to the procedures permitted the pharmacy technician in the state of Washington regarding community pharmacy. Prerequisite: PHARM 122, 123, 124 with a 2.0 grade or better. (SCC)

#### PHARM 133 – Hospital Pharmacy (6 cr)

This course offers clinical practice to perfect students' competence in performing pharmacy technician functions that take place under direct supervision of the pharmacist. Students work in a hospital pharmacy assisting the pharmacist. Prerequisite: Completion of all prior required courses with a 2.0 grade or better. (SCC)

# PHILOSOPHY

#### PHIL& 101 - Intro to Philosophy (5 cr)

Designed to enable students to examine the fundamental problems in philosophy by reading selectively the writings of the significant philosophers and analyzing them in discussion seminars. The lectures are designed to develop a perspective and sense of continuity toward the growth of Western thought. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### PHIL& 106 – Intro to Logic (5 cr)

A basic introduction to deductive and inductive logic, the nature of formal deductive proof and its application to the traditional logical problems. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### PHIL 210 – Ethics (5 cr)

A systematic and historical analysis of some of the problems in ethics. An examination of some of the principle ethical positions and the criteria for their solutions. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### PHIL 215 – Environmental Philosophy (5 cr)

Students explore the philosophical relationship between human beings and the non-human world. The moral status of animals and ecosystems, anthropocentrism versus biocentrism, environmental economics and public policy, deep ecology, ecofeminism, and the idea of a "land ethic" are emphasized. (SCC, SFCC)

#### PHIL 220 – Philosophy of Religion (5 cr)

The course is designed to give the student an understanding of both classical and contemporary philosophy of religion by concentrating on the nature of religion, religious disagreements, the existence of God, the problem of evil, the relation between faith and reason, and religious language. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### PHIL 231 - Modern Philosophical Problems (5 cr)

The course includes both purely philosophical and literary manifestations of existentialism. Treatment follows a historical progression from the 19th century forerunners of existentialism (Dostoevsky, Nietzsche, Kierkegaard) to the major modern representatives (Heidegger, Jaspers, Sartre and Camus). Prerequisite: PHIL& 101 or PHIL 210 or permission of instructor. SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### PHIL 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SFCC)

# PHIL 267 - Cooperative Education Work Experience (1-8 cr)

For course description, see Cooperative Education. (SFCC)

# PHOTOGRAPHY

#### PHOTO 101 – Introduction to Photography (5 cr)

This course introduces black and white photography from a historical, artistic and experiential perspective. Students learn basic camera operation, printmaking and composition while exploring the cultural impact photography has on society. (SFCC)

#### PHOTO 102 – Photographic Appreciation (2 cr)

Students explore current and historical trends in photography and identify career opportunities in a wide variety of visual communication fields. Students discover the work of photographers and designers who have had significant impact on the field and learn to speak the "language" of photography in a professional environment. (SFCC)

# PHOTO 111 – Studio Photography I (4 cr)

Students learn to control lighting and exposure in a studio environment while exploring a variety of subjects, including still life, commercial product and people photography. Students learn to identify the characteristics of light on a subject, operate studio lighting equipment and master a variety of metering techniques to calculate proper exposure. Prerequisite: PHOTO 101. (SFCC)

See program/course abbreviation key on page 143.

#### PHOTO 112 – Photographic Design (4 cr)

Students in this course discover the artistic substance of photography through the application of design principles in photography. Students compose images that are balanced, exhibit depth, and explore the relationship between visual elements, emotions and ideas. Students learn to assess their work and formulate criteria for critiquing photography and design. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

# PHOTO 115 - Photography Lab II (3 cr)

Students apply the skills acquired in second-quarter photography classes and develop work habits to meet employer standards when using darkroom and shooting room facilities in the photography building. Prerequisite: PHOTO 101. (SFCC)

# PHOTO 120 – Photographic Arts (3 cr)

Students develop artistic interpretations of black and white images by applying alternative printing techniques. Topics include solarization, photo montages, selective toning, polaroid image transfers, and applying photographic emulsions to other media including canvas, water color paper and ceramic substrates. Prerequisite: PHOTO 101 or permission of department or division. (SFCC)

#### PHOTO 121 – Location Photography I (4 cr)

This course applies the principles of studio photography outside of the studio by teaching students to analyze and modify lighting conditions on location. Students identify the effects of different types of light sources and apply supplemental lighting to make dynamic exposures of people, products, interior design and architectural landscapes. Prerequisite: PHOTO 101. (SFCC)

#### PHOTO 125 – Photography Lab III (3 cr)

Students in this course apply the skills acquired in third-quarter photography classes and develop work habits to meet employer standards when using darkroom and shooting room facilities in the photography building. Prerequisite: PHOTO 115. (SFCC)

### PHOTO 126 – Digital Photography I (5 cr)

Using the latest image-editing software, students explore the creative possibilities of digital imaging while retouching and creating multiple image composites. Students acquire knowledge of technical requirements to create photographic quality images using computers, scanners, digital printers and cameras. (SFCC)

#### PHOTO 131 - Introduction to Photojournalism (3 cr)

Students in this course assume the role of photojournalist while investigating the ethical issues involved with journalism in America. Students tell stories with pictures, develop an eye for alternative image perspectives, gather accurate assignment information and work with editors in a fast-paced environment. Students are provided an opportunity to visit with working professionals and to explore career opportunities in journalism. (SFCC)

#### PHOTO 132 - Advanced Black and White Photography (3 cr)

This course provides students an opportunity to fully explore the capabilities of black and white photography while learning the Zone system and advanced darkroom techniques. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

#### PHOTO 133 - Color Lab (3 cr)

Students in this course learn to make color prints and process color film and transparencies. Instruction includes working in a photo-finishing lab while mastering push and pull film processing, color printing, and mixing chemistry. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

#### PHOTO 200 - Photography Media (4 cr)

This course focuses on photography as a communication tool. Instead of concentrating on a single image, students script and produce a multimedia presentation that combines still-images, sounds, text and graphics. Students explore ways to market multimedia presentations to corporations and gov-ernment agencies, and survey current multimedia technology. Prerequisite: PHOTO 101. (SFCC)

#### PHOTO 205 – Photography Lab IV (3 cr)

Students in this course apply skills acquired in their fourth-quarter photography courses and develop work habits to meet employer standards when using darkroom and shooting room facilities in the photography building. Prerequisite: PHOTO 125. (SFCC)

#### PHOTO 215 – Photography Lab V (3 cr)

Students in this course apply the skills acquired in their fifth-quarter photography classes and develop work habits to meet employer standards while using darkroom and shooting room facilities in the photography building. Prerequisite: PHOTO 205. (SFCC)

#### PHOTO 225 – Photography Lab VI (3 cr)

Students is this course apply the skills learned in their sixth-quarter photography classes and develop work habits to meet employer standards while using darkroom and shooting room facilities in the photography building. Prerequisite: PHOTO 215. (SFCC)

#### PHOTO 227 – Business of Photography (3 cr)

Students in this course set career goals and develop a comprehensive personal plan of action. Students gain knowledge of business practices unique to the field of photography, while taking inventory of the skills necessary to be successful. Topics include different methods for earning income, development of a step-by step strategy to achieve success, business contracts, customer service policies, marketing, financial breakdowns of pricing strategies, sales presentations, professional associations and sources for further education. Prerequisite: PHOTO 205. (SFCC)

#### PHOTO 231 - Studio Photography II (4 cr)

Students expand their knowledge of a variety of lighting and metering techniques introduced in PHOTO 111 to create dynamic images of people and products for advertising layouts. Students develop problem-solving skills as they work with art directors, prepare bids and research current trends in commercial photography. Prerequisite: PHOTO 111. (SFCC)

### PHOTO 232 – Portraiture (4 cr)

This class focuses on the skills necessary for working with people in the portrait photography field. Students discover lighting and posing techniques to augment an individual's appearance while exploring the variety of markets for portrait photography including high school seniors, weddings, families, executives, children and fine-art portraiture. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

#### PHOTO 233 – Location Photography II (4 cr)

Students in this course apply a variety of lighting, metering and color correction techniques introduced in PHOTO 121 to gain experience in the corporate and industrial segments of commercial photography. Subjects vary from architectural design, corporate communication and working with fashion models on location. Prerequisite: PHOTO 121. (SFCC)

#### PHOTO 234 – Digital Photography II (5 cr)

Students in this course apply skills to create imaginative photographic illustrations and prepare them for publication. An emphasis is placed on color management and preparing images for the Internet. Prerequisite: PHOTO 126. (SFCC)

#### PHOTO 235 - Nature and Landscape Photography (5 cr)

This course teaches students to refine their composition skills while capturing images of nature, wildlife and landscapes. Marketing of images through publishers, stock agencies and art galleries is discussed. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

#### PHOTO 236 – Photography Workshop (1-4 cr)

This class enables students to keep abreast of current trends and conduct research projects in various facets of photography. This course may be repeated for up to 12 credits. (SFCC)

#### PHOTO 237 – Introduction to Documentary DV Production (3 cr)

Students examine a variety of creative approaches to filmmaking while using current digital video technology to produce their own short films. Students explore the history of "non-fiction" filmmaking and identify the major characteristics of the documentary genre. Special emphasis is placed on identifying relevant applications of digital video technology within the photographic industry such as: Wedding and event videography, corporate communications and biographical tributes. (SFCC)

#### PHOTO 238 - Fashion Photography (4 cr)

Students explore historical origins, the role of photography in shaping fashion trends, major historical movements and photographic masters and trendsetters of fashion photography. This class focuses on the knowledge and skills necessary for producing effective fashion, beauty, glamour, and product imagery for advertising and editorial purposes. Advanced lighting and posing techniques, in studio and on location, are stressed. Photo-graphic assignments explore preproduction, pose, wardrobe, propping and environment while creating conceptually stylized imagery. Post-production. Prerequisite: PHOTO 101, 126 or permission of instructor. (SFCC)

#### PHOTO 240 – Large Format Photography (4 cr)

Students explore the photographic techniques and the mechanics of the large format view camera. Focus is on building a technical knowledge while developing skills in large format camera use. Topics covered include a historical overview of the view camera, view camera design, optical principals, camera movements and operations. Assignment work stresses practical applications in still- life, architecture, portraiture, and landscape and macro photography. Prerequisite: PHOTO 101 or permission of in-structor. (SFCC)

For course description, see Cooperative Education. (SFCC)

**PHOTO 267 – Cooperative Education Work Experience (1-18 cr)** 

For course description, see Cooperative Education. (SFCC)

# **PHYSICAL EDUCATION**

# PE 100 - Fitness for Life (1 cr)

This course is designed to acquaint students with proper methods and techniques for establishing an individualized personal wellness and fitness program. It is conducted in the campus Fitness Center and includes personalized inventory and appraisal of current fitness level and explores options available to improve cardiovascular endurance, weight control, strength and flexibility. (SCC, SFCC)

# PE 101 – Beginning Volleyball (1 cr)

Fundamental skills, rules, etiquette and strategy; development of skills through drills and competitive play. (SCC, SFCC)

# PE 102 - Archery (1 cr)

Course is designed to develop basic archery skills and appreciation of target archery. Students learn proper use of equipment, fundamental skills, terminology and scoring. (SCC, SFCC)

# PE 105 – Beginning Badminton (1 cr)

Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC)

# PE 106 - Yoga Fitness (1 cr)

This course promotes individual fitness and total mind-body health. Strength and stretching movements, flexibility and breathing exercises, and relaxation techniques are presented. (SCC, SFCC)

# PE 107 – Jogging (1 cr)

Course designed to improve the student's level of physical fitness and wellness, teach proper methods of running/jogging, encourage proper body weight and body fat levels, and establish a permanent habit of exercise. (SCC, SFCC)

# PE 108 – Beginning Tennis (1 cr)

Basic skills and techniques needed for singles and doubles play. Court etiquette, rules, strategy, scoring and terminology. (SCC, SFCC)

# PE 112 – Beginning Flag Football (1 cr)

Techniques of offensive and defensive team play. Rules, mechanics and skills. (SFCC)

#### PE 114 – Beginning Karate (1 cr)

Fundamental skills, philosophy, rules and strategy of karate. Emphasizes a combination of skill, power and discipline. (SCC, SFCC)

#### PE 115 - Beginning Soccer (1 cr)

Basic skills, strategy and team play involved in the game of soccer. (SCC, SFCC)

### PE 116 – Beginning Basketball (1 cr)

Fundamentals of ball handling, shooting, passing, and techniques of offensive and defensive play. Competitive play situations provided. (SCC, SFCC)

# PE 117 – Kickboxing (1 cr)

Students learn the basic skills, techniques and safety procedures of kickboxing. Sport specific activities to improve individual balance, strength, endurance and cardiovascular conditioning are emphasized. (SCC, SFCC)

# PE 118 – Beginning Bowling (1 cr)

This course is designed to teach fundamental skills, rules, techniques, scoring and etiquette of bowling. (SCC, SFCC)

#### PE 120 - Beginning Softball (1 cr)

Fundamentals of team play, rules and game strategies. Emphasis placed on participation by all. (SCC, SFCC)

# PE 122 – Beginning Skiing (1 cr)

Instruction at all levels of competency in the skills and techniques of skiing. Classes are held at Mt. Spokane. (SCC, SFCC)

# PE 126 – Beginning Golf (1 cr)

Practice and development of fundamental skills, rules and etiquette of golf. (SCC, SFCC)

# PE 127 – Beginning Jazz Dance (1 cr)

Course includes jazz dance oriented stretching and warm-ups. Class will learn jazz combinations, walks and steps incorporated in a variety of dance routines. (SFCC)

# PE 130 – Pickleball (1 cr)

Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SFCC)

# PE 133 – Beginning Cycling (1 cr)

This is an introductory course covering the basic techniques and applications of a fixed gear stationary bike. Students perform an exercise routine on the stationary Schwinn Spinner to increase their cardiovascular and pulmonary efficiency, musculoskeletal strength and endurance, and coordination and balance while riding in a group setting. (SCC, SFCC)

#### PE 135 – Gymnastics (1 cr)

Gymnastics basics covering beginning, intermediate and advanced levels in the areas of tumbling, flexibility, vaulting, bars and balance beam. (SCC)

# PE 139 — Weight Training (1 cr)

This course covers modern weight training techniques, including strength and endurance training, and flexibility and coordination. Students learn proper techniques of both Olympic freebar weights and machine circuit training programs. (SCC, SFCC)

# PE 140 – Beginning Ski Conditioning (1 cr)

Ski conditioning class is an intense concentration of exercises that complement the basic movements of skiing. The emphasis is on improving the general level of body conditioning, flexibility and improvement of cardiovascular functions as they relate to skiing. (SCC, SFCC)

#### PE 141 – Theory and Conditioning of Soccer (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 143 – Theory and Conditioning of Basketball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular function. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 144 – Theory and Conditioning of Softball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 145 – Theory and Conditioning of Baseball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 146 – Theory and Conditioning of Cross Country (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 147 – Theory and Conditioning of Track (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 149 – Theory and Conditioning of Golf (2 cr)

This is a complete offering of skill development, playing strategies, course management, and concepts and rules mastery as they relate to the game of golf. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 151 – Theory and Conditioning of Tennis (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 154 – Theory and Conditioning of Volleyball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 156 — Techniques of Soccer (3 cr)

This course is a study of the rules, team organization, techniques and strategy of soccer. (SCC, SFCC)

#### PE 157 – Track Techniques (3 cr)

This course is a study of the rules, techniques, and strategy of track and field events. (SCC, SFCC)

#### PE 158 — Techniques of Tennis (3 cr)

This course presents intense techniques of tennis designed for students interested in competitive play in either singles or doubles. Advanced drills, footwork, agility and conditioning for competitive play are emphasized. (SCC, SFCC)

# PE 159 — Techniques of Golf (3 cr)

This course is a study of the rules, techniques, fundamentals and skills of golf. It is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 160 — Techniques of Volleyball (3 cr)

This course is a study of the rules, team organization, techniques and strategies of volleyball. (SCC, SFCC)

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This course presents an intense study of proper basketball techniques, fundamentals and skills. Individual and team offensive and defensive strategies and philosophies also are presented. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 165 — Techniques of Baseball (3 cr)

This course is designed to develop knowledge and physical skills of baseball in a laboratory setting. Students learn rules and strategies of baseball, and basic fundamentals of hitting, throwing and catching as applied to the individual's position or positions. (SCC, SFCC)

#### PE 169 - Techniques of Softball (3 cr)

This course is designed for students interested in competitive fast pitch softball. Advanced drills, skills, techniques and conditioning for competitive play are emphasized. (SCC, SFCC)

#### PE 170 – Introduction to Physical Education and Recreation (3 cr)

This course is designed to develop introductory skills and increase knowledge in the occupational areas of health, physical education, recreation and coaching. Students learn historical factors that have shaped the profession, current trends, philosophies and objectives of physical education. (SCC, SFCC)

#### PE 177 – Beginning Body Conditioning (1 cr)

A variety of activities that lead to overall improvement of body conditioning, weight training, walking, jogging, calisthenics and organized physical activities will be employed to increase efficiency of cardiovascular functions. (SCC, SFCC)

#### PE 182 – Beginning Ballet (1 cr)

Introduction and explanation of ballet from fundamental to more complex techniques. (SFCC)

# PE 184 — Professional Technical Physical Education (2 cr)

This course is designed for professional/technical students who wish to improve their personal fitness level specific to their industry requirements. The 11 lecture hours focus on the components of improving a healthy lifestyle. Topics covered include heart disease, controllable and noncontrollable risk factors, nutrition, stress management, and exercise methods. The 22 hours of lab are designed to implement the methods and techniques studied in the lecture. Students also perform physical assessments to determine their current level of fitness. Following the assessment, a personal exercise program is developed for them to carry out during the quarter. (SCC, SFCC)

#### PE 185 - Beginning Aerobic Fitness (1 cr)

A program of stretching and aerobic conditioning set to music. Course designed to improve and appraise flexibility, strength and cardiovascular fitness through a variety of aerobic techniques. (SCC, SFCC)

#### PE 186 - Fast Fitness, Beginning (1 cr)

Comprehensive physical fitness course designed to develop strength, flexibility, muscular endurance and cardiovascular efficiency in an effective and timely manner through the use of circuits. (SCC, SFCC)

# PE 187 – Cross Training (2 cr)

The term cross training is the involvement of a variety of different activities into a single coordinated program. The objective is to achieve high levels of strength, endurance and flexibility while at the same time preventing injuries. It is necessary to include different types of activities into a weekly routine. The cross training class focuses on the following: Development of a comprehensive, personalized fitness program utilizing the state-of-the-art equipment in the Fitness Center. The course will require a basic knowledge of the fast fitness circuit concept and an understanding of the cardiovascular equipment. Individual programs will incorporate the use of all exercise equipment in the Fitness Center. In addition, individuals need to include other activities such as running, rowing, cycling, stair climbing, cross-country skiing, free weight training, in-line skating and walking. Monthly goals are predetermined and a daily training record will be kept to evaluate the individual's progress toward his/her goals. (SCC, SFCC)

#### PE 188 - Basic Fitness I (2 cr)

This initial fitness course includes one lecture session per week covering the basic "how to's" of exercise and nutrition, starting a fitness program, eating for maximum energy and weight management. Students participate in two activity sessions per week of low-level, nonimpact and nonintimidating activities. Students take a personalized inventory and appraisal of their current fitness level and explore options available to improve cardiovascular endurance, weight control, strength and flexibility. (SCC, SFCC)

#### PE 200 - Fitness for Life (1 cr)

This course is designed to acquaint students with proper methods and techniques for establishing an individualized personal wellness and fitness program. It is conducted in the campus Fitness Center and includes personalized inventory and appraisal of current fitness level and explores options available to improve cardiovascular endurance, weight control, strength and flexibility. (SCC, SFCC)

#### PE 201 – Advanced Volleyball (1 cr)

Fundamental skills, rules, etiquette and strategy; development of skills through drills and competitive play. (SCC, SFCC)

# PE 202 – Archery (1 cr)

Course is designed to develop basic archery skills and appreciation of target archery. Students learn proper use of equipment, fundamental skills, terminology and scoring. (SCC, SFCC)

# PE 205 – Advanced Badminton (1 cr)

Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC)

# PE 206 — Yoga Fitness (1 cr)

This course promotes individual fitness and total mind-body health. Strength and stretching movements, flexibility and breathing exercises, and relaxation techniques are presented. (SCC, SFCC)

#### PE 207 – Jogging (1 cr)

Course designed to improve the student's level of physical fitness and wellness, teach proper methods of running/jogging, encourage proper body weight and body fat levels, and establish a permanent habit of exercise. (SCC, SFCC)

#### PE 208 – Advanced Tennis (1 cr)

Basic skills and techniques needed for singles and doubles play. Court etiquette, rules, strategy, scoring and terminology. (SCC, SFCC)

#### PE 212 – Advanced Flag Football (1 cr)

Techniques of offensive and defensive team play. Rules, mechanics and skills. (SFCC)

# PE 214 – Advanced Karate (1 cr)

Fundamental skills, philosophy, rules and strategy of karate. Emphasizes a combination of skill, power and discipline. (SCC, SFCC)

#### PE 215 – Advanced Soccer (1 cr)

Basic skills, strategy and team play involved in the game of soccer. (SCC, SFCC)

#### PE 216 – Advanced Basketball (1 cr)

Fundamentals of ball handling, shooting, passing, and techniques of offensive and defensive play. Competitive play situations provided. (SCC, SFCC)

#### PE 217 – Kickboxing (1 cr)

Students learn the basic skills, techniques and safety procedures of kickboxing. Sport specific activities to improve individual balance, strength, endurance and cardiovascular conditioning are emphasized. (SCC, SFCC)

#### PE 218 – Advanced Bowling (1 cr)

This course is designed to teach fundamental skills, rules, techniques, scoring and etiquette of bowling. (SCC, SFCC)

#### PE 220 — Advanced Softball (1 cr)

Fundamentals of team play, rules and game strategies. Emphasis placed on participation by all. (SCC, SFCC)

#### PE 222 – Advanced Skiing (1 cr)

Instruction at all levels of competency in the skills and techniques of skiing. Classes are held at Mt. Spokane. (SCC, SFCC)

#### PE 226 – Advanced Golf (1 cr)

Practice and development of fundamental skills, rules and etiquette of golf. (SCC, SFCC)

#### PE 227 – Advanced Jazz Dance (1 cr)

Course includes jazz dance oriented stretching and warm-ups. Class will learn jazz combinations, walks and steps incorporated in a variety of dance routines. (SFCC)

### PE 230 – Pickleball (1 cr)

Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SFCC)

#### PE 233 – Advanced Cycling (1 cr)

This advanced-level course continues development of techniques and applications presented in PE 133. Students perform a variety of advanced exercise routines on stationary Schwinn Spinner bicycles to increase cardiovascular and pulmonary efficiency, musculoskeletal strength and endurance, and coordination and balance while riding in a group setting. Prerequisite: PE 133. (SCC, SFCC)

#### PE 235 - Gymnastics (1 cr)

Gymnastics basics covering beginning, intermediate and advanced levels in the areas of tumbling, flexibility, vaulting, bars and balance beam. (SCC)

#### PE 239 — Weight Training (1 cr)

This course covers modern weight training techniques, including strength and endurance training, and flexibility and coordination. Students learn proper techniques of both Olympic freebar weights and machine circuit training programs. (SCC, SFCC)

#### PE 240 – Advanced Ski Conditioning (1 cr)

Ski conditioning class is an intense concentration of exercises that complement the basic movements of skiing. The emphasis is on improving the general level of body conditioning, flexibility and improvement of cardiovascular functions as they relate to skiing. (SCC, SFCC)

#### PE 241 – Theory and Conditioning of Soccer (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

## PE 243 – Theory and Conditioning of Basketball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular function. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 244 – Theory and Conditioning of Softball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 245 - Theory and Conditioning of Baseball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 246 – Theory and Conditioning of Cross Country (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

# PE 247 – Theory and Conditioning of Track (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 249 – Theory and Conditioning of Golf (2 cr)

This is a complete offering of skill development, playing strategies, course management, and concepts and rules mastery as they relate to the game of golf. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 251 – Theory and Conditioning of Tennis (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 254 – Theory and Conditioning of Volleyball (2 cr)

This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 256 – Techniques of Soccer (3 cr)

This course is a study of the rules, team organization, techniques and strategy of soccer. (SCC, SFCC)

#### PE 257 – Track Techniques (3 cr)

This course is a study of the rules, techniques, and strategy of track and field events. (SCC, SFCC)

#### PE 258 - Techniques of Tennis (3 cr)

This course presents intense techniques of tennis designed for students interested in competitive play in either singles or doubles. Advanced drills, footwork, agility and conditioning for competitive play are emphasized. (SCC, SFCC)

#### PE 259 — Techniques of Golf (3 cr)

This course is a study of the rules, techniques, fundamentals and skills of golf. It is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 260 – Techniques of Volleyball (3 cr)

This course is a study of the rules, team organization, techniques and strategies of volleyball. (SCC, SFCC)

#### PE 264 — Techniques of Basketball (3 cr)

This course presents an intense study of proper basketball techniques, fundamentals and skills. Individual and team offensive and defensive strategies and philosophies also are presented. The course is designed for students interested in individual and team competition. (SCC, SFCC)

#### PE 265 — Techniques of Baseball (3 cr)

This course is designed to develop knowledge and physical skills of baseball in a laboratory setting. Students learn rules and strategies of baseball, and basic fundamentals of hitting, throwing and catching as applied to the individual's position or positions. (SCC, SFCC)

#### PE 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

#### PE 267 – Cooperative Education Work Experience (1-3 cr)

For course description, see Cooperative Education. (SCC, SFCC)

#### PE 269 – Techniques of Softball (3 cr)

This course is designed for students interested in competitive fast pitch softball. Advanced drills, skills, techniques and conditioning for competitive play are emphasized. (SCC, SFCC)

#### PE 270 - Nutrition for Fitness (3 cr)

This course provides students with a working knowledge of prudent nutritional practices and focuses on issues of concern to individuals who are active in physical fitness programs. In addition to basic nutritional information, the course covers topics with special applications to the fitness field, such as the nutritional requirements of different activities, planning training diets and pregame meals. The effects of ergogenic foods on performance, fluid and electrolyte balance also are covered. (SCC, SFCC)

# PE 272 – Psychology of Athletic Achievement (3 cr)

This course provides the student with the principles and practices of personal achievement as applied to athletics and academic endeavors. Techniques of developing a positive self-image through understanding and application of basic philosophies relating to goal setting, motivation and personal discipline are introduced. (SCC, SFCC)

#### PE 277 – Advanced Body Conditioning (1 cr)

A variety of activities that lead to overall improvement of body conditioning, weight training, walking, jogging, calisthenics and organized physical activities will be employed to increase efficiency of cardiovascular functions. (SCC, SFCC)

#### PE 282 — Advanced Ballet (1 cr)

Introduction and explanation of ballet from fundamental to more complex techniques. (SFCC)

#### PE 284 — Professional Technical Physical Education II (2 cr)

This advanced course is designed for professional/technical students who have completed PE 184. The 11 lecture hours will involve analyzing current industry requirements, such as type of job, tools used, length of time standing, variety of positions utilized, physical demands and injury statistics. The 22 hours of lab focuses on developing an exercise program that meets the needs of specific vocational requirements. Students also perform physical tests required by the industry. An example would be the police science student performing the obstacle course within current police academy standards. Prerequisite: PE 184. (SCC, SFCC)

#### PE 285 – Advanced Aerobic Fitness (1 cr)

A program of stretching and aerobic conditioning set to music. Course designed to improve and appraise flexibility, strength and cardiovascular fitness through a variety of aerobic techniques. (SCC, SFCC)

#### PE 286 – Fast Fitness, Advanced (1 cr)

Comprehensive physical fitness course designed to develop strength, flexibility, muscular endurance and cardiovascular efficiency in an effective and timely manner through the use of circuits. (SCC, SFCC)

#### PE 287 - Cross Training (2 cr)

The term cross training is the involvement of a variety of different activities into a single coordinated program. The objective is to achieve high levels of strength, endurance and flexibility while at the same time preventing injuries. It is necessary to include different types of activities into a weekly routine. The cross training class focuses on the following: Development of a comprehensive, personalized fitness program utilizing the state-of-the-art equipment in the Fitness Center. The course will require a basic knowledge of the fast fitness circuit concept and an understanding of the cardiovascular equipment. Individual programs will incorporate the use of all exercise equipment in the Fitness Center. In addition, individuals need to include other activities such as running, rowing, cycling, stair climbing, cross-country skiing, free weight training, in-line skating and walking. Monthly goals are predetermined and a daily training record will be kept to evaluate the individual's progress toward his/her goals. (SCC, SFCC)

#### PE 288 – Basic Fitness II (2 cr)

Students utilize advanced concepts of fitness and exercise developed in PE 188. Knowledge of wellness and fitness is enhanced through completion of 10 self-motivated independent study modules. Prerequisite: PE 188. (SCC, SFCC)

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# **PHYSICAL THERAPIST ASSISTANT**

# PTA 101 – Introduction to Physical Therapy (3 cr)

This course is an introduction to the practice of physical therapy emphasizing the role of the physical therapist assistant as a member of the health care team. Investigation of the law pertaining to the practice of physical therapy and ethical conduct are covered. Issues of teamwork, interpersonal communication skills and patient motivation will be explored. Prerequisite: Acceptance into PTA program. (SFCC)

# PTA 102 – Physical Therapy Terminology (1 cr)

This course is a supervised self-study of medical terminology and abbreviations used to describe the anatomy, physiology and pathology of the body systems used in relationship to the practice of physical therapy. Terms associated with diagnostics, surgery, laboratory tests, pharmacology and patient care are included. Prerequisite: Acceptance into PTA program. (SFCC)

# PTA 103 – Applied Anatomy (6 cr)

Course offering includes instruction in human anatomy with an emphasis on the musculoskeletal system, external palpation and identification of structures, and relationship to function. Introduction to kinesiology. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

# PTA 104 – Survey of Pathophysiology (5 cr)

This course includes a basic overview of disease processes, including general pathological responses and the physiology of healing and repair. A description of specific diseases and conditions, and the medical and surgical forms of treatment as they relate to rehabilitation is covered and there is discussion of systemic origins of musculosketetal pain. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

# PTA 105 - Introduction to Neuroscience (4 cr)

An introduction to the structures and basic functions of the nervous system in relationship to physical therapy treatment of patients with neurological diagnoses is offered in this course. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

#### PTA 106 – Regional Human Anatomy and Physiology (5 cr)

Human body structure and function from a regional viewpoint with emphasis on the skeletal, muscular and nervous systems; the respiratory and cardiovascular systems and introduction of digestive and endocrine systems. Prerequisite: BIOL& 241. (SFCC)

#### PTA 110 - PTA Procedures I: Basic PT Procedures (7 cr)

Basic patient care skills including vital signs, bandaging, aseptic techniques, wound care and athletic taping are offered in this course. Preparation of patient and treatment environment, as well as theory and application of superficial heat, cold and hydrotherapy are covered. Prerequisite: Acceptance into PTA program. (SFCC)

#### PTA 111 - PTA Procedures II: PT Modalities (7 cr)

The focus of study is on theory and application of deep heat modalities, principles and application of basic massage techniques, and the introduction to fundamentals of traction and electrotherapy. Prerequisite: Grade of 2.0 or better in PTA 110 and all PTA courses. (SFCC)

#### PTA 112 – PTA Procedures III: Functional Restoration (7 cr)

Instruction addresses physical restoration techniques including bed mobility, patient transfers, postural analysis, principles of normal and abnormal ambulation, use of assistive devices, and selected functional rehabilitation activities. Prerequisite: Grade of 2.0 or better in PTA 111 and all PTA courses. (SFCC)

#### PTA 151 - Clinical Experience I (2 cr)

Supervised clinical observation and experience in a variety of physical therapy clinic settings affiliated with the college are provided. A clinical discussion group focuses on interpersonal communication and patient interaction, oral and written patient progress reports, and effective problemsolving skills. Prerequisite: Grade of 2.0 or better in all PTA courses or permission of instructor. (SFCC)

#### PTA 201 – Issues in Physical Therapy and Health Care (2 cr)

This course is a survey of medical, legal, and psychosocial issues relating to the role of the physical therapist assistant in various physical therapy facilities and in the delivery of health care. Emphasis is on the goals of physical therapy and how the PTA can influence the achievement of those goals. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

#### PTA 202 – Introduction to Orthopedics (3 cr)

This course is the basic introduction to biomechanics and mechanisms of orthopedic injuries and diseases. Fundamentals of orthopedic terminology are addressed, and a survey of surgical repair with emphasis on rehabilitation is included. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

# PTA 210 – PTA Procedures IV: Therapeutic Exercise (7 cr)

Instruction addresses therapeutic exercise and selected kinesiological principles related to exercise. Also addressed are basic principles of selected physical therapy testing procedures. Specific exercise protocols and prosthetic and orthotic devices are studied. Patient motivation issues and work as a member of the health care team are covered. Prerequisite: Grade of 2.0 or better in PTA 112 and all PTA courses. (SFCC)

#### PTA 211 – PTA Procedures V: Rehabilitation Applications (7 cr)

Instructional focus is on application of basic physical therapy skills for the treatment of specific neurologic disabilities including spinal cord injuries, stroke, head injuries, MS and other neurologic diseases. Additional emphasis is placed on the development of treatment programs for orthopedic patients including upper and lower extremity dysfunctions, injuries to the spine, and lower extremity amputations. Students develop specific home programs, instruct in family training, and select appropriate assistive devices and equipment for neurologic, geriatric and orthopedic patients. Students apply physical therapy skills for the comprehensive treatment of the geriatric patient, vestibular and burn patients, and analyze functional assessments and testing for sensory related deficits. Prerequisite: Grade of 2.0 or better in PTA 210 and all PTA courses and concurrent enrollment in PTA 201, 252. (SFCC)

#### PTA 212 - PTA Procedures VI (4 cr)

Instruction is provided in normal and abnormal development, pediatric treatment philosophies and principles, pediatric assessment tools, gross motor skill development, behavior management and communication skills, and common pediatric disorders. Laboratory sessions focus on facilitation of developmental sequence, common treatment approaches including handling, positioning, range of motion, strength and mobility. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 210, 251, 254. (SFCC)

#### PTA 251 – Clinical Experience II (1 cr)

Supervised clinical experience in varied physical therapy sites affiliated with the college. Students are expected to continue to develop skills in basic patient care, documentation, modalities and functional activities which have been previously evaluated in the laboratory setting. Prerequisite: Grade of 2.0 or better in all previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 254. (SFCC)

#### PTA 252 – Clinical Experience III (3 cr)

Supervised clinical experience in varied physical therapy sites affiliated with the college. Students are expected to continue to develop skills in basic patient care, documentation, modalities and functional activities which have been previously evaluated in the laboratory setting. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 211, 255. (SFCC)

### PTA 253 – PTA Clinical Affiliation (12 cr)

This is a full-time internship of practical performance and appropriate application of physical therapy procedures and techniques under supervision in two selected clinic settings or a physical therapy department associated with the college. This affiliation is sufficient to insure the student has reached the minimum level of competency required for an entry-level physical therapist assistant in the application of physical therapy procedures and the understanding of clinic responsibilities and supervisory relationships prior to graduation. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in all PTA courses or permission of instructor. (SFCC)

#### PTA 254 – Clinical Seminar II (1 cr)

Clinical lecture and discussion seminar will focus on cultural competence and verbal and written communication with clients and the health care team. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 251. (SFCC)

# PTA 255 - Clinical Seminar III (1 cr)

Survey of issues surrounding patient care and teamwork. Topics will focus on patient interaction, adjustment to disability and grief, ethics, and physical therapist and physical therapist assistant roles and responsibilities. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 211, 252. (SFCC)

# <sup>236</sup> PHYSICS

# PHYS 100 - Introductory Physics (5 cr)

This course is intended for nonscience majors to provide exposure to the culture of physics-its history, principles, laws, recent developments and societal impacts. Math is minimal and weekly laboratory study is required. (SCC, SFCC)

#### PHYS 101 - General Physics (5 cr)

This course is for science and other majors not requiring calculus-level physics. There is an emphasis on mechanics, Newton's Laws of Motion, rotation motion and conservation principles. This course also requires a weekly laboratory. Prerequisite: 2.0 or better in one of the following MATH courses: MATH& 141, 142, 151, 152, 153, 254, MATH 220, 225, 274. (SCC, SFCC)

#### PHYS 102 - General Physics (5 cr)

For science and other majors not requiring calculus-level physics. Emphasis on wave motion optics, thermodynamics and fluids. Requires weekly laboratory. Prerequisite: PHYS 101. (SCC, SFCC)

# PHYS 103 - General Physics (5 cr)

For science and other majors not requiring calculus-level physics. Emphasis on electricity, magnetism, relativity and quantum physics. Requires weekly laboratory. Prerequisite: PHYS 101. (SCC, SFCC)

#### PHYS 105 - Optics (5 cr)

Light phenomena with emphasis on aspects encountered in photographic studies. Geometrical, physical and wave optics, photometry, color, and light sources. (SFCC)

# PHYS 108 - Acoustics (5 cr)

Nonmath approach to basic topics of physics emphasizing the application of these topics to the field of acoustics. Includes mechanics, sound, light and electricity. (SFCC)

# PHYS 120 - Fundamentals of Medical Physics (5 cr)

This course emphasizes applications of physics in the health science areas for cardiopulmonary and echocardiographic instrumentation. Topics covered include mechanics, fluid statics (Archimedes' and Pascal's Principles), molecular phenomena related to biological processes, elasticity and wave motion, physics of sonographic imaging, and instruments. Prerequisite: MATH 099 or equivalent; PHYS 100 or high school physics. Enrollment is limited to invasive or noninvasive cardiovascular technology students. (SCC)

# PHYS 121 – Medical Physics II (4 cr)

Advanced applications in medical physics and instrumentation are emphasized in this course. Topics include pressure and energy of flowing fluids in the circulatory system with various medical applications of Poiseuille's Law, Bernoulli Effect, Venturi Effect; AC and DC electric circuits; instrumentation, and safety issues; applications using LASERs; light, nuclear radiation; and other topics in modern physics. Other topics may include Magnetic Resonance Imaging (MRI), Near Infrared (NIR) spectroscopy, Ocular Coherence Tomography (OCT), or Positron Emission Tomography (PET). Prerequisite: PHYS 120 and enrolled in an invasive or noninvasive cardiovascular technology program. (SCC)

# PHYS 200 - Introduction to Einstein's Physics (5 cr)

Einstein's physics is designed for the non physics major who desires to understand 20th century physics. The course begins with a review of the inadequacies of classical physics, then develops the ideas of relativity (both special and general) and quantum mechanics. The course includes a weekly two-hour laboratory exercise. Algebra is used extensively. Prior knowledge of classical physics is necessary. Prerequisite: MATH 099 and PHYS 100. (SFCC)

# PHYS 201 – Engineering Physics I (5 cr)

Calculus-level classical physics with emphasis on mechanics. This course is for engineering and physical science majors transferring to four-year institutions. Topics include kinematics, dynamics, gravity, momentum and energy. A weekly laboratory is required. Prerequisite: PHYS 100 or one year of high school physics and MATH& 152 and concurrent enrollment in MATH& 153. (SFCC)

# PHYS 202 – Engineering Physics II (5 cr)

Calculus-level classical electricity and magnetism for physical science and engineering majors. Topics include AC and DC circuits, Gauss' Law, Kirchhoff's Laws and Maxwell's equations. A weekly laboratory is required. Prerequisite: PHYS 201 and MATH& 153. (SFCC)

#### PHYS 203 - Engineering Physics III (5 cr)

Calculus-level classical thermodynamics and wave mechanics for physical science and engineering majors. Topics include laws of thermodynamics, thermal properties of matter, mechanical waves, sound and light. A weekly laboratory is required. Prerequisite: MATH& 153 and PHYS 201. (SFCC)

# **POLITICAL SCIENCE**

# POLS& 101 – Intro to Political Science (5 cr)

Development of Western political theory and ideology, comparative analysis of contemporary ideologies, examination of political processes with emphasis on the individual's role. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# POLS 102 - Comparative Government (5 cr)

This is an introductory, interdisciplinary course designed to introduce students to the systematic study of comparative political systems. In an increasingly interdependent world, this course provides students with the conceptual and analytical tools to study political behavior, institutions and processes of various countries across the globe. (SCC)

#### POLS 125 – Introduction to Global Issues (5 cr)

This is an introductory, multidisciplinary course designed to introduce the student to pertinent global issues. A goal of this course is to foster and promote understanding, attitudes and skills that enables citizenry in local communities to function humanely in an age of global interdependence. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# POLS 201 - State and Local Government (5 cr)

Development of an understanding of the structure of state and local government in general, and Washington in particular, including a working knowledge of current issues facing the state and its political subdivisions. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# POLS& 202 – American Government (5 cr)

The basic course develops an understanding of American politics and political institutions, the philosophies and concepts of American constitutionalism, and the structure and operation of the American form of government. Emphasis is placed on the theories and practice of democracy, pluralism and elitism. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# POLS& 203 – International Relations (5 cr)

A broad survey of the relations of nations: Political, military, economic and cultural, and of the forces for order in the international world. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### POLS 204 – Political Philosophy (5 cr)

This is an introduction to the basic theories behind political philosophy. Areas of emphasis includes government, state of nature, authority and legitimacy. (SCC)

# $\ensuremath{\text{POLS}}$ 205 – Islam and the West: Theater of Cooperation and Conflict (5 cr)

This introductory, multidisciplinary course introduces students to the systematic study of Islam and the West in world politics. Conceptional and analytical tools to study Global Islam are provided. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# POLS 280 — Introduction to Modern British Government and Social Services (3 cr)

A two-week introduction to British cultural, economic and political institutions in their historical context. Prerequisite: Only for students in England for the Service Learning in England program. (SFCC)

# **PSYCHOLOGY**

# PSYC& 100 – General Psychology (5 cr)

A general survey of the following areas of psychology: Physiology, sensation/ perception, cognition/memory, motivation, learning, development, social, intelligence, personality, mental health and scientific method. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# PSYC 181 – Psychology Seminar (1-5 cr)

Seminars provide contemporary depth in a variety of areas and problems, e.g., business, education, and the helping professions. Psychology seminars provide career exploration for both intended psychology majors and those interested in specific seminar topics. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. PSYC& 100 with a 2.0 or better within the last five years or permission of instructor. (SCC, SFCC)

#### PSYC 182 – Psychology Seminar (1-5 cr)

Seminars provide contemporary depth in a variety of areas and problems, e.g., business, education, and the helping professions. Psychology seminars provide career exploration for both intended psychology majors and those interested in specific seminar topics. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. PSYC& 100 with a 2.0 or better within the last five years or permission of instructor. (SCC, SFCC)

#### PSYC& 200 – Lifespan Psychology (5 cr)

A survey of human development from conception through late adulthood. Physical, emotional, cognitive and psychosocial development will be explored. Prerequisite: Must have passed PSYC& 100 with a 2.0 or better within the last five years or permission of instructor. (SCC, SFCC)

#### PSYC 204 - Research Methods in Social Science (5 cr)

The study of the basic data, theory, methodology and attitudes of the social scientist independent of any special area. Prerequisite: PSYC& 100 or SOC& 101. (SCC, SFCC)

# PSYC 210 – Conception through Adolescent Developmental Psychology (5 cr)

A survey of human development focusing on the physical, mental and emotional/social growth processes from conception through adolescence. Other topics include the history and principles of developmental psychology, childhood education and parenting. Prerequisite: Must have passed PSYC& 100 with a 2.0 or better within the last five years or permission of instructor. SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### PSYC& 220 – Abnormal Psychology (5 cr)

An introduction to the diagnosis, classification, research and theoretical concepts relating to abnormal and deviant behavior. Prerequisite: PSYC& 100 with a 2.0 or better within the last five years or permission of instructor. (SCC, SFCC)

#### PSYC 250 - Psychology of Adjustment (5 cr)

Human behavioral, mental and emotional experience are described and analyzed in the context of mental health and psychological growth, with emphasis on issues and problems of personal development and interpersonal relationships. Prerequisite: Must have passed PSYC& 100 with a 2.0 or better within the last five years or permission of instructor. (SCC, SFCC)

#### PSYC 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC)

PSYC 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC, SFCC)

# **RADIOLOGY TECHNOLOGY**

#### RAD 111 - Radiographic Positioning I (5 cr)

This course reviews specific anatomy as it appears on x-ray images such as chest and abdomen, upper and lower limbs, shoulder and pelvic girdles, and vertebral column systems. Students learn positional techniques used to take appropriate radiographs of each body part based on the physician's request. Correct alignment of radiographic equipment is emphasized. Exposure factors, patient apprehension, safety and comfort are addressed. (SCC)

#### RAD 112 - Medical Terminology for Radiology I (1 cr)

This course introduces medical terms and standard medical abbreviations. The language of medicine as it relates to radiology is emphasized. Logical methods for word formations, pronunciation, pluralization and spelling of medical terms are presented. (SCC)

#### RAD 113 - Patient Care and Ethics I (2 cr)

Students learn the necessary skills for meeting the physical and emotional needs of the patient. Patient preparation required to perform a radiographic examination is emphasized. (SCC)

#### RAD 114 – Radiographic Image Evaluation I (2 cr)

This course introduces essential technical factors used to evaluate radiographic quality including collimation, shielding, positioning, anatomical anomalies, density, contrast and film artifacts in the developed radiograph. Types of images being evaluated build as students' knowledge of positioning grows. (SCC)

#### RAD 115 – Fuch's Radiographic Principles I (3 cr)

This course introduces various forms of imaging. Students learn the basic principles of radiographic exposure, formulation of techniques and purpose, and the use of accessories such as grids, screens, collimators, filters and the x-ray tube. (SCC)

# RAD 116 - Clinical Education I (8 cr)

Students learn radiographic positioning, darkroom and office procedures, patient management and critical analysis of radiographs in a clinical setting. Students develop psychomotor skills, cognitive domain and affective behavior in the science of radiographic technology. (SCC)

# RAD 121 – Radiographic Positioning II (3 cr)

This course reviews the anatomy of each body part and system such as GI, Urinary, respiratory, bony thorax, and reproductive. Students learn positional techniques used to take appropriate radiographs of each body part or system based on the physician's request. Correct alignment of the image receptor and x-ray tube is emphasized. Exposure factors, patient apprehension, safety and comfort are covered. Prerequisite: RAD 111. (SCC)

#### RAD 122 – Medical Terminology for Radiology II (1 cr)

This course continues with the concepts introduced in RAD 112. Students' medical vocabulary is expanded to include medical vernacular pertaining to the positioning class topics. Prerequisite: RAD 112. (SCC)

# RAD 123 – Patient Care and Ethics II (2 cr)

This course continues with the concepts introduced in RAD 113. Students learn the necessary skills for meeting the physical and emotional needs of the patient. Patient preparation required to perform a radiographic examination is emphasized. Potential situations that may lead to litigation are covered. Students also learn to protect themselves and the patient. Prerequisite: RAD 113. (SCC)

#### RAD 124 – Radiographic Image Evaluation II (2 cr)

Students build on the skills introduced in RAD 114 and develop radiographic assessment skills based on technical factors such as collimation, shielding, positioning, anatomical anomalies, density, contrast and image artifacts. Prerequisite: RAD 114. (SCC)

#### RAD 125 – Fuch's Radiographic Principles II (3 cr)

This course continues with the concepts introduced in RAD 115. Students learn about radiation protection and use of protective devices. Film and film holders are emphasized. Students learn about radiation processing chemicals, darkroom design and care are emphasized. Prerequisite: RAD 115. (SCC)

# RAD 126 - Clinical Education II (9 cr)

Students learn radiographic positioning, darkroom and office procedures, patient management and critical analysis of radiographs in a clinical setting. Students continue to develop psychomotor skills, cognitive domain and affective behavior in the science of radiographic technology. Prerequisite: RAD 116. (SCC)

#### RAD 127 – Mobile/Surgical Procedures (1 cr)

This course reviews common mobile/surgical procedures using positional techniques to take appropriate radiographs of each body part based on the physician's request. Students review correct alignment of radiographic equipment, exposure factors, patient apprehension, safety and comfort. (SCC)

#### RAD 131 – Radiographic Positioning III (2 cr)

Students review the anatomy of the skull and facial bones and positional techniques utilized to take appropriate radiographs based on the physician's request. Correct alignment of image, anatomy and x-ray tube are emphasized. Students prepare for comprehensive tests. Prerequisite: RAD 121. (SCC)

#### RAD 132 - Radiation Physics (2 cr)

This course reviews principles and concepts of scientific measurement, molecular theory, matter and energy, and electricity, magnetism and circuitry. Particular emphasis is placed on imaging modalities, x-ray circuitry, and the principles and production of x-rays. (SCC)

#### RAD 134 – Radiographic Image Evaluation III (2 cr)

Students continue to develop radiographic assessment skills based on technical factors such as collimation, shielding, positioning, anatomical anomalies, density, contrast and image artfacts. Prerequisite: RAD 124. (SCC)

#### RAD 136 - Clinical Education III (9 cr)

This course continues with the development of clinical skills introduced in RAD 126. Prerequisite: RAD 126. (SCC)

#### RAD 141 – Radiographic Positioning IV (2 cr)

This course is a review of specific anatomy as it appears on x-ray images such as nervous, biliary arthrography and tomography systems. Students learn positional techniques used to take appropriate radiographs of each body part based on the physician's request. Correct alignment of radiographic equipment is emphasized. Exposure factors, patient apprehension, safety and comfort are addressed. Prerequisite: RAD 131. (SCC)

#### RAD 144 - Radiographic Image Evaluation IV (1 cr)

Students continue to develop radiographic assessment skills based on technical factors such as collimation, shielding, positioning, anatomical anomalies, density, contrast and image artifacts. Prerequisite: RAD 134. (SCC)

#### RAD 145 – Fuch's Radiographic Principles III (2 cr)

This course continues with the concepts introduced in RAD 125. Students learn about computerized and digital imaging, while radiation protection is emphasized. Prerequisite: RAD 125. (SCC)

COURSE DESCRIPTIONS

#### 238 RAD 146 – Clinical Education IV (8 cr)

This course continues with the development of clinical skills introduced in RAD 136. Prerequisite: RAD 136. (SCC)

# RAD 156 – Clinical Education VIII (1-7 cr)

Students learn radiographic clinical cat scan procedures. (SCC)

RAD 157 – Clinical Education IX (1-7 cr)

Students learn radiographic clinical cat scan procedures. (SCC)

#### RAD 211 – Radiographic Positioning V (1 cr)

This course is a review of specific anatomy as it appears on x-ray images such as chest and abdomen, upper and lower limbs, shoulder and pelvic girdles, bony thorax, vertebral column and gastrointestinal systems. Students learn positional techniques used to take appropriate radiographs of each body part based on the physician's request. Correct alignment of radiographic equipment is emphasized. Exposure factors, patient apprehension, safety and comfort are addressed. Prerequisite: RAD 141. (SCC)

#### RAD 212 – Quality Management (1 cr)

This course introduces quality assurance programs and techniques used in film quality evaluation, processing and x-ray instrumentation. Students study the theory and practical application of quality assurance. (SCC)

#### RAD 213 – Various Modalities (2 cr)

This course introduces the elements of ultrasound technology principles, nuclear medicine, mammography, radiation therapy, magnetic resonance imaging (MRI) and other special procedures. Principles of interventional and angiographic procedures, angiographic equipment and visualized anatomy are addressed. History of development, application and image presentation also are presented. The scope of medical imaging techniques and their correlation is emphasized. (SCC)

#### RAD 214 - Radiographic Image Evaluation IV (2 cr)

This course introduces essential technical factors used to evaluate radiographic quality including collimation, shielding, positioning, anatomical anomalies and density, contrast, and film artifacts in the developed radiograph. Types of images being evaluated build as students' knowledge of positioning grows. Prerequisite: RAD 134. (SCC)

#### RAD 215 - Radiation Biology and Protection (2 cr)

This course introduces the effects of ionizing radiation on biologic tissue. An overview of pertinent pathological diseases is presented, and the concepts of radiation protection is discussed and emphasized. (SCC)

#### RAD 216 - Clinical Education V (9 cr)

This course continues with the development of clinical skills introduced in RAD 146. Prerequisite: RAD 146. (SCC)

# RAD 223 - Radiation Pathology (2 cr)

A radiologist discusses disease processes, anomalies and technical factors related to properly completed radiographs. (SCC)

# RAD 224 – Radiographic Image Evaluation V (2 cr)

This course introduces essential technical factors used to evaluate radiographic quality including collimation, shielding, positioning, anatomical anomalies and density, contrast, and film artifacts in the developed radiograph. Types of images being evaluated build as students' knowledge of positioning grows. Prerequisite: RAD 214. (SCC)

#### RAD 225 - Skull and GI Review (1 cr)

This course reviews the positional techniques utilized when taking radiographs of the skull and GI system based on the physician's request. (SCC)

#### RAD 226 - Clinical Education VI (9 cr)

This course continues with the development of clinical skills introduced in RAD 216. Prerequisite: RAD 216. (SCC)

#### RAD 235 - Pharmacology/Venipuncture (1 cr)

Students learn safe administration of pharmaceuticals including clinical experience in needle placement. Needle insertion and contrast media injection, and principles of pharmacological agents used in a radiology department are emphasized. (SCC)

#### RAD 236 – Clinical Education VII (9 cr)

This course continues with the development of clinical skills introduced in RAD 226. Prerequisite: RAD 226. (SCC)

#### RAD 237 - Review and Registration Preparation (3 cr)

Students review all the material covered in previous radiology technology courses in preparation of the ARRT examination which may be taken on or after the day of graduation from the program. (SCC)

### RAD 238 - Cat Scan (1 cr)

Course content is designed to provide entry-level radiography students with principles related to computed tomography (CT) imaging. This course include instruction on the history, various components, operations and processes applied in CT. The students will also be instructed on the appropriate radiation protection that should be utilized. (SCC)

# **RESPIRATORY CARE**

#### RT 110 – Physical Science for Respiratory Care (3 cr)

This introductory course applies physical sciences to cardiopulmonary physiology, respiratory care equipment and operation, and application of physical laws to mechanical and physiological measurements. Prerequisite: Admission in program. (SCC)

#### RT 111 - Respiratory Care Fundamentals I (3 cr)

This is the first in a series of four-quarter courses introducing respiratory care fundamentals. Students learn the respiratory care profession, cover pulmonary anatomy and physiology, patient assessment, respiratory disease states, fundamentals of oxygen theory, and cardiopulmonary resuscitation. Prerequisite: Admission in program. (SCC)

#### RT 112 – Pharmacology and Medical Terminology I (1 cr)

This is first in a series of three courses on pharmacology and medical terminology. General pharmacological principles, drug classification, computations, routes of deliver and respiratory medications are emphasized. Word construction, definitions and use of terms related to medical science, hospital service and allied health specialties are covered. Prerequisite: Admission in program. (SCC)

#### RT 120 - Respiratory Care Fundamentals II (4 cr)

This is the second in a series of four-quarter courses introducing respiratory care fundamentals. Arterial blood gas interpretations, humidity and aerosol therapy, oxygen analyzer, pulse oximetry, airway maintenance and secretion management, patient assessment, and manual resuscitation are emphasized. Work ethics and professionalism also are covered. A CPR instructor course is included. Prerequisite: Completion of previous quarter. (SCC)

#### RT 130 - Fundamentals of Spirometry and Blood Gas Analysis (3 cr)

This is first in a series of three courses applying the technique of spirometry and blood gas analysis in the diagnosis of cardiopulmonary dysfunction. Prerequisite: Completion of previous quarter. (SCC)

#### RT 131 – Cardiopulmonary Anatomy and Physiology (1 cr)

This course introduces cardiopulmonary anatomy and physiology. The structure and function of the cardiopulmonary system are emphasized. Prerequisite: Completion of previous quarter. (SCC)

### RT 132 - Respiratory Care Fundamentals III (4 cr)

This is the third in a series of four-quarter courses introducing respiratory care fundamentals. Hyperinflation therapy, chest physiotherapy, introduction to positive pressure ventilators, a seven-hour special unit on AIDS related education, as required by state law, and infection control are emphasized. Prerequisite: Completion of previous quarter. (SCC)

#### RT 133 – Pharmacology and Medical Terminology II (3 cr)

This course is second in a series of three on pharmacology dealing with principles of mucolytics, antiasthmatics, antimicrobials, anti-inflammatory agents, surface-active and special applications. The medical terminology portion includes laboratory assessment values associated with the cardiopul-monary system. A written report on a specific drug is required. Prerequisite: Completion of previous quarter. (SCC)

#### RT 134 – Respiratory Care Clinical I (1 cr)

Students observe the role of the respiratory care practitioner in the acute care environment while applying didactic and psychomotor skills at the bedside during administration of fundamental respiratory care skills. Prerequisite: Completion of previous quarter. (SCC)

#### RT 140 — Respiratory Care Fundamentals IV (2 cr)

This is the final course in a series of four covering the psychosocial stages of development from infant to geriatrics, a foundation describing the unique requirements of the pediatric patient and pediatric disorders, and the classification, theory and operation of adult acute care ventilators. Prerequisite: Completion of previous quarter. (SCC)

#### RT 141 – Medical/Surgical Respiratory Care (1 cr)

This is an overview course of the medical/surgical problems related to respiratory disease, including the etiology, course therapy and prognosis. Prerequisite: Completion of previous quarter. (SCC)

#### RT 142 - Computer Applications for Respiratory Care (1 cr)

This course introduces fundamental applications of microcomputers, patient management and simulated scenarios. Basic technical writing applied to report preparation, resume writing and cover letters are covered. Prerequisite: Completion of previous quarter. (SCC)

#### RT 143 – Respiratory Care Clinical II (5 cr)

This course continues with the concepts presented in RT 134 with emphasis on specific therapeutic techniques including oxygen, humidity and aerosol therapy, airway management, hyperinflation, and chest physiotherapy with additional exposure to pediatrics, the surgical environment and the infection control process. Prerequisite: Completion of previous quarter. (SCC)

#### RT 210 - Critical Care I (6 cr)

This course introduces all aspects of the adult critically ill patient in need of life support systems, including hemodynamic monitoring, cardiopulmonary assessment and ventilator management. Prerequisite: Completion of previous quarter. (SCC)

#### RT 211 – Advanced Cardiac Life Support (2 cr)

This is the third in a series of cardiopulmonary pharmacology and advance cardiac life support courses. Content areas include the principles and techniques of advanced emergency cardiac care. Prerequisite: Completion of previous quarter. (SCC)

#### RT 212 - Respiratory Care Clinical III (5 cr)

This course continues with the concepts presented in RT 143 with emphasis on the critically ill adult patient. Team management skills, maintenance and withdrawal of life support, cardiopulmonary assessment, and hemodynamic monitoring are emphasized. Prerequisite: Completion of previous quarter. (SCC)

#### RT 213 - Pulmonary Volumes, Diffusion and Instrumentation (3 cr)

This advanced course introduces pulmonary diagnostics relating to measurement and assessment of flow volume loops, lung volumes, distribution and diffusion. Prerequisite: Completion of previous quarter. (SCC)

#### RT 214 – Pulmonary Diagnostics Clinical I (1 cr)

Students assist in the evaluation of patients with pulmonary disease including pulmonary function testing and arterial blood gas analysis in hospital and private practice laboratories. Prerequisite: Completion of previous quarter. (SCC)

#### RT 215 – Cardiopulmonary Pathophysiology (1 cr)

The pathophysiology of cardiopulmonary diseases including obstructive, restrictive, vascular and lung injuries are presented in this course. Prerequisite: Completion of previous quarter. (SCC)

#### RT 220 - Critical Care II (5 cr)

This course continues with the concepts in RT 210 emphasizing advanced mechanical ventilator applications and nonconventional approaches to patient management in critical care settings with an introduction to the sub-acute, skilled nursing, home and rural areas. Interviewing skills and job market analysis are presented. Prerequisite: Completion of previous quarter. (SCC)

#### RT 221 – Perinatal Respiratory Care (3 cr)

This course emphasizes pediatric and neonatal respiratory care dealing with the pathophysiology, disease status and assessment of the newborn and pediatric patients including therapeutic procedures, resuscitation and mechanical ventilation. Literature review leading to written reports and oral discussion of current and advanced developments also is included. Prerequisite: Completion of previous quarter. (SCC)

#### RT 222 - Respiratory Care Clinical IV (4 cr)

This course continues with the concepts presented in RT 212 with the addition of pediatric and neonatal intensive care settings and an observation in an alternative site. Students observe and assist in patient assessment with pulmonogist and the program's medical director. Prerequisite: Completion of previous quarter. (SCC)

#### RT 223 – Advanced Pulmonary Diagnostics (4 cr)

This course introduces specialized diagnostic procedures including radiographic, bronchoscopies, polysomnography, pulmonary stress testing and exercise physiology. Prerequisite: Completion of previous quarter. (SCC)

#### RT 224 - Advanced Pulmonary Diagnostics Clinical II (1 cr)

This course continues with the applications introduced in RT 214. Students assist in the evaluation of patients with pulmonary disease and disorders in hospital and private practice laboratories including the sleep lab, bedside and outpatient bronchoscopy, and pulmonary stress testing. Prerequisite: Completion of previous quarter. (SCC)

#### RT 230 - Current Trends in Respiratory Care (2 cr)

This course explores current concepts in respiratory care and health care delivery with student presentations and discussions of cardiopulmonary patient case studies involving diagnostic and therapeutic modalities. Pre-requisite: Completion of previous quarter. (SCC)

#### RT 231 - Patient Management and Problem Solving (3 cr)

This course introduces the application of respiratory care practices and procedures leading to patient problem solving including computer applications with clinical simulations based on entry and advanced national board exams. Prerequisite: Completion of previous quarter. (SCC)

#### RT 232 - Sub-Acute/Rehabilitation Respiratory Care (2 cr)

This course introduces the application of principles of respiratory care to patients being managed in sub-acute, extended and skilled nursing facilities, rural and home care. Smoking cessation and wellness concepts are shared with the local community. Prerequisite: Completion of previous quarter. (SCC)

#### RT 233 – Fundamentals of Management in Health Care (2 cr)

This course introduces organizational structure, job descriptions and evaluation, employee benefits, reimbursement, budgeting, scheduling, and other management skills required for employment in the heath care industry. Prerequisite: Completion of previous quarter. (SCC)

# RT 234 — Respiratory Care Clinical V (5 cr)

Students transition from student practice to that of a respiratory care practitioner. Added clinical practice in the sub-acute, home care and optional rural environments is offered. Prerequisite: Completion of previous quarter. (SCC)

# RUSSIAN

#### RUSS& 121 - Russian I (5 cr)

This course prepares students to be proficient in Russian sound and writing systems, to cary on a conversation in Russian using everyday vocabulary, and to discuss routine, daily activities. (SCC, SFCC)

#### RUSS& 122 – Russian II (5 cr)

This course prepares students to be proficient in Russian sound and writing systems, to carry on a conversation in Russian using everyday vocabulary, and to discuss routine, daily activities. Prerequisite: RUSS 121 is required. (SCC, SFCC)

#### RUSS& 123 - Russian III (5 cr)

This course prepares students to be proficient in Russian sound and writing systems, to carry on a conversation in Russian using everyday vocabulary, and to discuss routine, daily activities. Prerequisite: RUSS 122 is required. (SCC, SFCC)

# SALISH

# SAL 101 – Salish I (5 cr)

Interior Salish Language and Culture focuses on Nselxcin language traditionally spoken by the Aboriginal people of North Central and Eastern Washington and Southern British Columbia. Students learn to speak and understand basic Salish and are introduced to the International Phonetic Alphabet. The course consists of a variety of communicative lessons, each with a core vocabulary, phrases and usage information. Course materials are supplemented with songs, traditional stories and other cultural teachings. (SCC, SFCC)

#### SAL 102 - Salish II (5 cr)

A continuation of Salish 101, this course, focuses on Nselxcin language traditionally spoken by the Aboriginal people of North Central and Eastern Washington and Southern British Columbia. Students learn to speak and understand basic Salish and are introduced to the International Phonetic Alphabet. The course consists of communicative lessons, each with a core vocabulary, phrases and usage information. Course materials are supplemented with songs, traditional stories and other cultural teachings. Prerequisite: SAL 101. (SCC, SFCC)

#### SAL 103 - Salish III (5 cr)

Students use the foundation of language acquired in Salish 101 and 102 in order to study and memorize traditional plateau stories written and recorded in the Nselxcin language. This Interior Salish Language and Culture course focuses on Nselxcin language traditionally spoken by the Aboriginal people of North Central and Eastern Washington and Southern British Columbia. In Salish 103 Students increase their proficiency in reading and writing using the International Phonetic Alphabet. The course consists of a variety of literature lessons, each with a core vocabulary and narrative phrases, as well as usage and grammatical information. Course materials are supplemented with songs and other cultural teachings. Prerequisite: SAL 101, 102. (SCC, SFCC)

# SMALL BUSINESS MANAGEMENT

#### SBM 101 – How to Start a Small Business (5 cr)

This course offers an interesting and realistic look at the scope and trends of small business, the role and future of small business in our economy, and the advantages and disadvantages of owning a business. The main causes for business failure and success, the importance of preparing a business plan, and resources that are available to help the small business owner succeed also are addressed. The class is based on current information and hands-on participation by the student. (SCC-telecourse only) (SCC, SFCC)

#### SBM 105 – Targeting Your Market (2 cr)

Introduces students to marketing by examining marketing problems facing the small business owner today. Helps the small business owner better understand how to afford marketing research, select a great location, determine methods of pricing goods and services for profit, and understand customer buying habits. (SFCC)

#### See program/course abbreviation key on page 143.

For course description see Cooperative Education. (SFCC)

# **SOCIAL SERVICES**

# HSSOC 115 - Social Policy (5 cr)

This is an introductory course that is policy-oriented. It attempts to instill systematic habits of analysis and inquiry that will increase students' awareness and objectivity. The focus is on current issues and problems in social work. (SFCC)

# HSSOC 176 - Counseling Techniques (5 cr)

Various approaches to the treatment of chemical dependency are addressed in this course. Students are exposed to basic counseling skills, strategies employed in chemical dependency treatment, counseling techniques used in addressing treatment needs, and techniques used for removing blocks to recovery. Specific techniques are demonstrated and practiced that are appropriate for a variety of populations suffering from chemical dependency. (SFCC)

#### HSSOC 221 - Treatment Theories in Human Services (5 cr)

Concepts, theories and practices regarding social work treatment are covered in this course. Focus is on the constructs, underlying principles, theories, practices and desired outcomes of several contemporary treatment modalities. Prerequisite: HSSUB 176. (SFCC)

# HSSOC 279 - Case Management (3 cr)

This course prepares students to function effectively as case managers in state-approved chemical dependency treatment programs. It includes detailed instruction in a systemized, uniform problem-oriented recording system approved by DASA, as well as methods and strategies employed in intervention, assessment, intake, treatment planning and case supervision in a variety of treatment settings. (SFCC)

# SOCIOLOGY

#### SOC& 101 - Intro to Sociology (5 cr)

Basic concepts and theories of sociology with an emphasis on the group aspects of human behavior. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

# SOC& 201 – Social Problems (5 cr)

Social problems have existed in societies throughout time. We live in an increasingly connected world where the social problems experienced in one nation are influenced by events in other parts of the world. This class explores social problems in the U.S. as well as examines social problems on a global scale. Topics covered include: Globalization, world economy and world poverty, human rights, population growth and environmental destruction, race and gender, crime, war and terrorism. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### SOC 204 - Research Methods in Social Science (5 cr)

The study of the basic data, theory, methodology and attitudes of the social scientist independent of any special area. Prerequisite: PSYC& 100 or SOC& 101. (SCC, SFCC)

#### SOC 211 - Marriage and the Family (5 cr)

A sociological analysis of the institution of the family including historical and cross-cultural variations of the family structure and mate selection processes; the modern family institution with regard to the sexual, reproductive, economic and socialization function; newly emerging lifestyles, alternate living patterns, family disorganization, and changing definitions of family. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### SOC 221 – Race and Ethnic Relations (5 cr)

We are a society unprecedented in its diversity of color, class, and cultural origin that reflects the fundamental ethnic and racial composition as well as stratification of the United States population. This class offers a comprehensive examination of race relations that commences with an appreciation of diversity in the United States and seeks to understand these relations through a historically grounded comparative analysis of several dominant/ minority global patterns. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SCC, SFCC)

#### SOC 230 - Sociology of Gender (5 cr)

Sociology of Gender examines the changing views of gender in modern society and explores the available research on the social and institutional pressures that shape women and men and their roles in society. This course directly confronts the myths, misconceptions and stereotypes surrounding nearly every aspect of gender, including work, education, sexuality, politics, economics, marriage, family, crime and spirituality. This course also includes a cross-cultural perspective on gender. Prerequisite: SFCC recommended minimum reading placement score: COMPASS 80, ASSET 40. (SFCC)

# SOC 250 - Sociology of Religion (5 cr)

A sociological analysis of the individual forces, the cultural systems and the social structures that, in interaction, shape religion and are shaped by it. Establishes a powerful frame of reference to understanding the definition of religion, the functions of religions, aspects of religions and probable future. (SCC)

#### SOC 261 – Crime and Justice (5 cr)

Explores the phenomenon of crime; considers its causes, theories of prevention and the institutional means employed to combat it, including police, courts and corrections. Crime is interpreted as an American paradox; it is feared and deplored, yet persists and grows. The course examines that paradox by focusing on cultural contradiction in American society regarding crime, justice and punishment. (SCC, SFCC)

# SOC 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

SOC 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# **SPANISH**

# SPAN 105 – Spanish for Social Workers (2 cr)

Students are provided with the basic grammar and vocabulary necessary to interpret documents, ask the most frequently asked questions in the social service profession, and to understand the answers to those questions. (SCC, SFCC)

#### SPAN 107 – Business Spanish (4 cr)

An introductory course designed for students preparing for a career in business. Upon completion, students are able to handle the most common situations that they encounter in Spain and be familiar with its government, economy and recent history. (SCC, SFCC)

# SPAN& 121 – Spanish I (5 cr)

These courses are an introduction to the Spanish language, traditions and culture using the most modern methods of language learning with emphasis on oral communication. Students complete lab assignments outside of scheduled class times. (SCC, SFCC)

#### SPAN& 122 – Spanish II (5 cr)

These courses are an introduction to the Spanish language, traditions and culture using the most modern methods of language learning with emphasis on oral communication. Students complete lab assignments outside of scheduled class times. Prerequisite: SPAN& 121 or permission of instructor. (SCC, SFCC)

#### SPAN& 123 – Spanish III (5 cr)

These courses are an introduction to the Spanish language, traditions and culture using the most modern methods of language learning with emphasis on oral communication. Students complete lab assignments outside of scheduled class times. Prerequisite: SPAN& 122 or permission of instructor. (SCC, SFCC)

#### SPAN& 221 – Spanish IV (5 cr)

Intensive review plus emphasis on Spanish culture and the idiomatic usage of the language, both oral and written. Prerequisite: Two years of high school Spanish or one complete year of college Spanish or permission of instructor. (SCC, SFCC)

#### SPAN& 222 – Spanish V (5 cr)

This course places emphasis on the composition and discussion of contemporary and cultural issues, with increasingly difficult idioms and structural concepts. Prerequisite: SPAN& 221 or permission of instructor. (SCC, SFCC)

#### SPAN& 223 – Spanish VI (5 cr)

This course places continued emphasis on the composition and discussion of contemporary issues as well as Hispanic and Latin American culture, with increasingly difficult vocabulary and structural concepts. Prerequisite: SPAN& 221, 222 or permission of instructor. (SCC, SFCC)

# SPAN 241 – Spanish Conversation and Culture (2 cr)

Students increase their vocabulary, improve their speaking ability, and gain more confidence in using previously studied grammatical concepts. Conducted in Spanish. Prerequisite: Two years of college-level Spanish (SPAN& 223) or equivalent. (SCC, SFCC)

#### SPAN 242 – Spanish Conversation and Culture (2 cr)

Students continue to develop their fluency in Spanish by participating in small group discussions that focus on a wide variety of topics in Hispanic culture. Conducted in Spanish. May be taken without SPAN 241 as a pre-requisite. Prerequisite: Two years of college-level Spanish (SPAN& 223) or equivalent. (SCC, SFCC)

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#### SPAN 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC, SFCC) **SPAN 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SCC, SFCC)

# SURGICAL TECHNOLOGY

#### SURG 100 - Introduction to Surgical Technology (2 cr)

This course introduces the roles of the surgical technologist emphasizing the surgical environmental and procedural safety concerns. (SCC)

# SURG 101 - Surgical Procedures (5 cr)

This course is an introduction to the knowledge and techniques essential to the surgical technologist in preparation of the patient for major or minor surgical procedures. Expertise in preparation/utilization of equipment and supplies, sterilization/disinfection, aseptic techniques, robotics, and duties of the surgical technologist and assistant circulator are emphasized. Health care provider CPR is included. Prerequisite: SURG 100, 120, 125. (SCC)

#### SURG 104 - Central Service Clinical (1 cr)

This clinical rotation allows students the opportunity to develop performance competencies appropriate to central service units. (SCC)

#### SURG 105 - Blood-borne Pathogens and HIV/AIDS (1 cr)

Students are introduced to current information on blood-borne pathogens with an emphasis on HIV/AIDS education utilizing the 7-hour Washington State curriculum. This course is offered online only. (SCC)

#### SURG 107 – Surgical Environment (3 cr)

Students learn the skills required for the physical environment (working condition) of the operating room. Understanding the basic patient and staff safety issues are emphasized. Prerequisite: Successful completion of first quarter coursework and concurrent enrollment in SURG 100, 125. (SCC)

#### SURG 111 – Technical Skills I (4 cr)

This course provides practical applications for performing the duties of a circulating assistant and scrub technician in a simulated operating room. Duties include patient preparation, equipment and supplies preparation, instrumentation, sterilization/disinfection practices, and aseptic techniques. Prerequisite: Concurrent enrollment in SURG 101. (SCC)

#### SURG 120 - Disease Transmission and Control (3 cr)

This course introduces students to basic microbiology theory including discussion of pathogenic microorganisms. Methods of transmission, identification of microorganisms in the operating room, and growth control and practices in the operating room are emphasized. (SCC)

#### SURG 125 – Medical Terminology (5 cr)

This course introduces the structure of medical terms associated with all bodily functions emphasizing the study of root, prefixes, suffixes and eponyms. Abbreviations and correct spelling of all terms are covered. (SCC)

#### SURG 202 - Surgical Procedures (6 cr)

This course continues with the concepts introduced in SURG 101 with emphasis on advanced preparation and utilization of electrical equipment and lasers. Supplies necessary for specific specialties and various surgical procedures are included. Prerequisite: SURG 101 and concurrent enrollment in SURG 212, 254. (SCC)

#### SURG 203 – Surgical Procedures (4 cr)

This course continues with the concepts introduced in SURG 202 with emphasis on advanced preparation and utilization of equipment. Supplies necessary for specific advanced specialties and various surgical procedures are included. An introduction of physics is presented. Prerequisite: SURG 202, 212 and concurrent enrollment in SURG 206, 255. (SCC)

#### SURG 206 - Perioperative Care of the Patient (4 cr)

Students learn the skills required for preoperative, intraoperative and postoperative phases of the surgical patient. Understanding the patient's pharmacologic, ethical, anesthetic, wound healing and other related nursing needs are emphasized. Prerequisite: Successful completion of fourth-quarter coursework and concurrent enrollment in SURG 203, 255. (SCC)

#### SURG 212 - Technical Skills II (4 cr)

This course continues with the applications introduced in SURG 111. Duties include patient preparation, equipment and supplies preparation, sterilizing practices, and disinfection and aseptic techniques. Prerequisite: Successful completion of SURG 101, 111 and concurrent enrollment in SURG 202. (SCC)

#### SURG 250 - Surgical Seminar (3 cr)

This weekly conference is based on discussion from the students' operating room experience in the form of case studies. Students also review for preparation for the national certification test. Prerequisite: SURG 255. (SCC)

#### SURG 254 – Operating Room Practicum (2 cr)

This course provides surgical technology students with actual experience in the operating room. In this pre-arranged practicum, students learn teamwork, flexibility, organization, and economy in time, motion and materials. Preparation of all supplies and equipment used for surgical procedures in the operation room is included. Prerequisite: SURG 101, 104, 111 and concurrent enrollment in SURG 202, 212. (SCC)

# SURG 255 – Operating Room Practicum (5 cr)

This course provides surgical technology students with actual experience in the operating room. In this pre-arranged practicum, students learn teamwork, flexibility, organization, and economy in time, motion and materials. Preparation of all supplies and equipment used for surgical procedures in the operation room is included. First and second scrubbing procedures under the supervision of operating room personnel or instructor are emphasized. Prerequisite: SURG 202, 212, 254 and concurrent enrollment in SURG 203, 206. (SCC)

# SURG 256 - Operating Room Practicum (10 cr)

Students gain clinical experience in affiliated hospital operating rooms assisting the circulator, and shadowing anesthesia and maternity technicians. Prerequisite: SURG 203, 206, 255 and concurrent enrollment in SURG 250. (SCC)

# VASCULAR TECHNOLOGY

#### VASC 100 - Introduction to Echo and Vascular (2 cr)

Introduction to the field of Echocardiography and Vascular Technology with emphasis on the role of these career pathways. Stresses the importance of professionalism, ethical behavior, and communications. Career opportunities, Credentialing, Program and Health Science student handbooks will be reviewed. Prerequisite: Admission to the program and concurrent enrollment in VASC 112, 125. (SCC)

#### VASC 112 – Vascular Fundamentals (4 cr)

This course is an introduction to basic vascular anatomy of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the physiology of these systems. An introduction to the concepts essential for the performance and interpretation of vascular exams is also included. Laboratory experience is required. (SCC)

# VASC 122 - Vascular Procedures I (4 cr)

This course introduces students to the basic vascular procedures used to assess the lower and upper extremities, abdomen, visceral organs and cerebral vascalature with emphasis on the ultrasonic examinations of these systems. Instrumentation commonly used in the vascular laboratory is also presented. Laboratory experience is required. Prerequisite: Admission to the program and concurrent enrollment in VASC 135. (SCC)

#### VASC 123 – Hemodynamics (2 cr)

Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. (SCC)

#### VASC 125 – Ultrasound Physics and Instrumentation I (5 cr)

This course emphasizes ultrasound physics, the physics of waves, sound transmission, attenuation, pulse wave principles, transducer and ultrasound systems operations. Prerequisite: Admission to the program and concurrent enrollment in VASC 100, 112. (SCC)

#### VASC 126 – Technical Skills/Reading Hemodynamics (1 cr)

Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in ICT 125. Prerequisite: Permission of instructor. (SCC)

#### VASC 131 – Core Concepts in Vasc (2 cr)

The core concepts in cardiac and vascular imaging will be explored. Applications of blood flow and hemodynamic analysis using Doppler and imaging technologies. Review of current literature and standards documents will be conducted. Prerequisite: Admission to the program and concurrent enrollment in VASC 132, 133, 138. (SCC)

#### VASC 132 – Vascular Procedures II (5 cr)

This course is an advanced study of normal cardiovascular physiology and the effects of pathology. It is presented in a series of physician lecture and lab demonstrations with applications in vascular, invasive and noninvasive cardiology. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 133, 138. (SCC)

#### VASC 133 – ECHO Fundamentals (5 cr)

Introduction to the basic principles and application of the Doppler and echocardiographic procedures. The anatomy, image assessment, hemodynamics and clinical applications of cardiac ultrasound are emphasized. Laboratory experiences are provided. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 132, 138. (SCC)

#### 242 VASC 135 – Ultrasound Physics and Instrumentation II (5 cr)

This course is a continuation of the concepts introduced in VASC 125. Ultrasound physics emphasizes the Doppler techniques, artifacts, bio utilizing instrumentation to investigate the principles of Doppler techniques and artifacts. Prerequisite: Admission to the program and concurrent enrollment in VASC 122. (SCC)

#### VASC 138 - Cardiovascular Physiology (4 cr)

This course is an advanced study of normal cardiovascular physiology presented in a series of physician lectures and lab demonstrations with applications in invasive and noninvasive cardiology. Prerequisite: BIOL& 241, 242. Admission to the program and concurrent enrollment in VASC 131, 132, 133. (SCC)

#### VASC 139 - Surgical Asepsis (1 cr)

Surgical asepsis for health care providers. This class will prepare the student to create a sterile field. Gown and glove themselves and others. Procedural awareness of working in a sterile field will be developed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### VASC 140 - Technical Skills/Surgical Asepsis (1 cr)

This class supports ICT 140. The skills of surgical asepsis and infection control are taught. Working in a sterile field and gowning and gloving are taught. Develop a surgical conscience. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

#### VASC 141 – Data Collection and Presentation (3 cr)

Students explore applications in medicine and develop the ability to use the microprocessor for word processing database management and statistical analysis. Principles of statistics are reviewed and applied through database management. Prerequisite: Admission to the program and concurrent enrollment in VASC 143, 144. (SCC)

#### VASC 142 – Survey of Diagnostic Medical Sonography (3 cr)

A survey of basic diagnostic medical sonography with an emphasis on normal abdominal and superficial structures anatomy and abnormal disease states. Standard sonographic imaging techniques of abdomen and superficial structures, instrumentation and examination protocols will be reviewed. Laboratory experience is required. Prerequisite: Admission to the program. (SCC)

#### VASC 143 – Vascular Screening Simulation (4 cr)

Students are introduced to the clinical environment by spending four weeks in the clinical setting under the direction of a staff technologist. Weekly clinical seminars are conducted with SCC staff. A clinical consciousness is developed that emphasizes professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to the program and concurrent enrollment in VASC 141, 144. (SCC)

#### VASC 144 – Vascular Screening Seminar (2 cr)

Vascular screening seminar will be conducted weekly to discuss cases presented during the vascular screening procedures performed. A clinical consciousness will be developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to the program and concurrent enrollment in VASC 141, 143. (SCC)

#### VASC 251 – Vascular Technical Skills (4 cr)

The student will develop intermediate to advanced skills in performing all vascular technology examinations, including cerebrovascular, peripheral arterial, peripheral venous and visceral/abdominal vascular examinations, in a clinical simulation format. Emphasis is placed on new developments and specialty applications as well as development of the essential skills in the performance of all vascular technology imaging techniques. All procedures are performed under the supervision of credentialed vascular technologists. Prerequisite: Admission to the program. (SCC)

#### VASC 252 – Advanced Vascular Techniques (7 cr)

This course uses the fundamentals presented in the first year of vascular technology to evaluate acquired vascular disease states. The incorporation of all forms of vascular testing performance and interpretation of ultrasonic, Doppler and plethysmographic examinations is presented. Related physician lectures and laboratory experiences are provided. (SCC)

#### VASC 253 – Vascular Clinical I (2 cr)

Students obtain advanced hands-on experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Admission to the program and concurrent enrollment in VASC 252. (SCC)

#### VASC 254 – Vascular Clinical Preparation (2 cr)

Students review all course materials in the first year with application on the clinical setting. Students develop skill at identification of both normal and abnormal images. Course is aligned with technical skills laboratory experience to allow students to develop clinical skills prior to assignment in a clinical setting. Prerequisite: Admission to the program. (SCC)

#### VASC 262 - Vascular Clinical II (14 cr)

Students practice clinical skills previously developed through active participation in a vascular laboratory. This course is a full-time clinical internship and is completed in an affiliated local or out-of-town hospital, clinic, or physician's office. Emphasis of this course is on the clinical skills necessary for the performance and evaluation of the vascular procedures. Written reports, review of current literature and attendance at conferences are required. Prerequisite: Admission to the program. (SCC)

#### VASC 272 - Vascular Clinical III (14 cr)

This course is a continuation of VASC 262 and includes a full-time clinical internship and is completed in an affiliated local or out-of-town hospital, clinic, or physician's office. Emphasis of this course is on the clinical skills necessary for the performance and evaluation of the vascular procedures. Written reports, review of the current literature and attendance at conferences are required. Prerequisite: Admission to the program. (SCC)

#### VASC 299 - Independent Studies in Vascular Technology (1-13 cr)

This course is designed for students wishing to complete specialized studies in the field of vascular technology. Objectives are developed jointly by the student and instructor. Credit hours are assigned according to the length of time required to complete the objectives. Credits are agreed upon at the time of enrollment. Students complete specialized clinical internships in pediatric echocardiography, color flow mapping or vascular technology. Prerequisite: Current enrollment or graduate of Vascular Technology, or permission of instructor. (SCC)

# VISION CARE

#### VCT 110 – Ophthalmic Optics (5 cr)

This course introduces the study of light and its properties emphasizing refraction of prisms, characteristics of ophthalmic lenses, correction of refractive errors, and practical verification and manufacturing of ophthalmic lens prescriptions. Students learn necessary skills for the setup and manufacturing of optical prescriptions. Prerequisite: ASSET math-passing score. (SCC)

#### VCT 111 – Ocular Anatomy and Physiology (5 cr)

This course introduces structure and function of the human eye, binocular vision as it relates to orthoptics, and ocular pharmacology. Students review symptoms relating to common ocular disorders. (SCC)

# VCT 112 – Introduction to Pretesting (4 cr)

Students learn to perform professional techniques of setting up, administering and recording specialized visual tests: Instrumentation of ocular mobility, external ocular examination, color testing, peripheral and central visual field testing stereo depth perception, visual acuities and glaucoma. (SCC)

#### VCT 123 – Ophthalmic Dispensing (5 cr)

This course introduces the selection of eyewear with emphasis on fashion, consideration of facial shapes and types of frames. Students learn to adjust eyewear for comfort and repair ophthalmic frames. Prerequisite: VCT 110. (SCC)

# VCT 124 – Ocular Pharmacology (2 cr)

Students learn to use pharmaceutical agents prescribed in the treatment of certain ocular conditions. (SCC)

# VCT 125 – Advanced Pretesting (6 cr)

This course continues with the concepts introduced in VCT 112 with emphasis on advanced theory and procedures involved in setting up, administering and recording a variety of specialized visual tests. Prerequisite: VCT 112. (SCC)

#### VCT 126 - Contact Lenses (5 cr)

This course introduces the basic theory of contact lenses including verification, instrumentation and modification, and removal and hygiene-related usage. Prerequisite: VCT 110 or permission of instructor. (SCC)

#### VCT 130 – Mechanical Optics (3 cr)

This course presents practical applications in filling optical prescriptions with emphasis on cutting and edging ophthalmic lenses to ANSI standards. Prerequisite: VCT 110, 123. (SCC)

COURSE DESCRIPTIONS

#### VCT 137 – Vision Care Specialties (2 cr)

This course introduces various specialties offered by many eye care professionals with emphasis on the background and theory in fundus photography, computerized vision testing, in-office surgical assistance, new research areas, sports vision, nutritional vision, vision therapy or orthoptics training, low vision, occupational and safety dispensing, and office management. One area of expanded learning is selected by the student and approved in conjunction with his/her on-site clinical supervisor and program director. Prerequisite: VCT 125. (SCC)

# VCT 138 – Vision Care Practicum (6 cr)

This course offers practical applications in various office procedures at worksites such as ophthalmology and optometry offices, optical shops or the SCC clinic. Prerequisite: Successful completion of first and second quarter VCT courses. (SCC)

#### VCT 139 – Ophthalmic Business Management (4 cr)

Students learn public relations duties, patient handling and control, appointment scheduling, telephone and mail procedures, professional grooming, and optometric financial systems. (SCC)

# WATER RESOURCES TECHNOLOGY

# WATER 109 - Introduction to Water Resources (5 cr)

This course introduces the fundamentals of field hydrology and the various components of the hydrologic cycle with an emphasis on runoff and hydrologic measurements, basic computational techniques, and water rights doctrines. (SCC)

# WATER 110 - Hydrogeology (5 cr)

Students study the basic geologic framework and hydrology of aquifers. Geologic factors such rock type, structure, geomorphology and geologic environments are introduced. Groundwater terminology, basic principles of groundwater flow, practical application of geologic maps and aerial photos, and basic computational skills are emphasized. (SCC)

# WATER 111 - Groundwater Systems (5 cr)

Students review the principles of groundwater flow. Hydrologic parameters associated with confined and unconfined aquifers are introduced. Interpretation of well log data as a tool for understanding aquifers is presented. Quantitative and qualitative groundwater resource problems are discussed. Practical applications and basic computational skills are emphasized. (SCC)

# WATER 120 – Hydrologic Technical and Field Reports (5 cr)

This course introduces the fundamental techniques of gathering, organizing and presenting technical hydrologic information in written and verbal form. Research of employment opportunities and various job descriptions particular to the water resources career field is conducted. Students learn to complete job application forms and resumes. (SCC)

#### WATER 128 – Occupational Preparation and Experience (1-10 cr)

This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

# WATER 129 - Occupational Preparation and Experience (1-10 cr)

This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

#### WATER 131, 132, 133, 231, 232, 233 - Hydrologic Field Projects (1-3 cr ea)

This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in water resource management. Guidance from the water resource instructors is provided to help students maximize their projects. (SCC)

# WATER 205 — Surveying (5 cr)

This course introduces principles of operation of levels, transits, theodolites and electronic measuring devices. Computational techniques are emphasized. Prerequisite: NATRS 122. (SCC)

#### WATER 207 – Weather and Climate (5 cr)

This course introduces the descriptive treatment of meteorological and climatological phenomena including winds, weather fronts, air masses, clouds, temperature and precipitation. Basic computations, weather map analysis, forecasting and instrumentation techniques are emphasized. (SCC)

#### WATER 208 – Water Data and Records Analysis (5 cr)

Students learn basic computation and tabulation techniques, diagrammatic presentation and interpretation of hydrologic data. Analyzing water level recorder charts and state-discharge relationships are emphasized. Students learn basic computer processing of records. (SCC)

# WATER 209 - Water Quality (5 cr)

This course introduces geologic and drainage basin characteristics. Students learn how man's influence through management activities impact water quality, timing and quantity of flow. Students study ecologic characteristics from a limnological viewpoint combining aspects of water quality and biology. Water quality field sampling and laboratory procedures are practiced. (SCC)

# WATER 210 - Hydrologic Measurement (5 cr)

This course offers practical experience in the fundamentals of streamflow measurement with emphasis on discharge and stage monitoring. The use, care and maintenance of various instruments and equipment are stressed. (SCC)

# WATER 212 - Water Rights and Laws (5 cr)

Students to gain a basic understanding of the water rights doctrines and learn practical applications in water management. Water quality regulations that govern the use of water in the western states is emphasized such as the Clean Water Act, Washington State Forest Protection Act and Spokane County regulations. (SCC)

# WATER 213 – Advanced Water Quality (5 cr)

This course emphasizes basic techniques of field water quality monitoring and sampling. Laboratory analyses of field samples are conducted with a follow-up of data interpretation and recommendations. (SCC)

# WATER 214 - Advanced Hydrologic Records (5 cr)

Students gain practical experience and develop skills in streamflow measurements, records management and surveying. Instrument and equipment maintenance are emphasized. Various standard computational techniques such as data processing and spread sheets are introduced. (SCC)

# WATER 216 – Watershed Restoration (5 cr)

Students are given the opportunity to analyze stream corridor processes and characteristics and then apply this knowledge in a final restoration project. (SCC)

#### WATER 218 – Hazardous Materials (3 cr)

Students study hazardous materials regulations, terminology, identification systems, shipping and storage containers, incident command systems and basic analysis, information resources, chemical protective clothing, and decontamination. This course meets the requirements for the 40-hour certificate. (SCC)

#### WATER 219 - Hazardous Materials Educational Refresher (1 cr)

This is an annual refresher course that meets the requirements for the EPA hazardous materials certification. Prerequisite: WATER 218 or possess a hazardous materials 40-hour certificate. (SCC)

# WATER 228 – Occupational Preparation and Experience (1-10 cr)

This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

#### WATER 229 – Occupational Preparation and Experience (1-10 cr)

This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

WATER 266 – Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

**WATER 267 – Cooperative Education Work Experience (1-18 cr)** For course description, see Cooperative Education. (SCC)

# WATER 288 – Cooperative Education Work Experience (No Seminar)

# (1-18 cr)

For course description, see Cooperative Education. (SCC)

# 244 WELDING AND FABRICATION

#### WELD 113 - Welding Math (2 cr)

This course introduces theory and practical application utilizing formulas to solve problems encountered in the fabrication industry. Prerequisite: Concurrent enrollment in WELD 114, 115, 116, 117 or permission of instructor. (SCC)

# WELD 114 - Introduction to Blueprint Reading (3 cr)

This course introduces students to blueprint reading. Structural shapes, conventional and auxiliary views, sections, and welding joints are emphasized. Prerequisite: Concurrent enrollment in WELD 113, 115, 116, 117 or permission of instructor. (SCC)

#### WELD 115 - Introduction to Fabrication (2 cr)

This course introduces tools, equipment and materials used in the layout and fabrication of a variety of welding projects with emphasis on their functions and proper use. Welding shop safety procedures are stressed. Prerequisite: Concurrent enrollment in WELD 113, 114, 116, 117 or permission of instructor. (SCC)

#### WELD 116 - Shielded Metal Arc Welding Theory (2 cr)

This course introduces shielded metal arc welding theory. Welding safety and positions, equipment setup, striking an arc, and cutting operations are emphasized. Prerequisite: Concurrent enrollment in WELD 113, 114, 115, 117 or permission of instructor. (SCC)

# WELD 117 - Shielded Metal Arc Welding Applications (1-7 cr)

This course offers practical lab experience utilizing the concepts introduced in WELD 116. The selection and application of welding electrodes to specific weld joints are emphasized. Prerequisite: Concurrent enrollment in WELD 113, 114, 115, 116 or permission of instructor. (SCC)

#### WELD 123 - Intermediate Blueprint Reading (2 cr)

This course continues the concepts introduced in WELD 114. The interpretation of blueprints and corresponding welding symbols are emphasized. Prerequisite: Concurrent enrollment in WELD 124, 125, 126 or permission of instructor. (SCC)

#### WELD 124 – Advanced Shielded Metal Arc Welding Theory (2 cr)

This course continues the concepts introduced in WELD 116. Welding metallurgy, electrode classifications, and the uses of carbon and alloy steels are introduced. Prerequisite: Concurrent enrollment in WELD 123, 125, 126 or permission of instructor. (SCC)

# WELD 125 - Advanced Shielded Metal Arc Welding Applications (6 cr)

This course provides advanced lab experience of the theory introduced in WELD 124. Welding practices used when working with carbon and alloy steels are emphasized. Prerequisite: Concurrent enrollment in WELD 123, 124, 126 or permission of instructor. (SCC)

#### WELD 126 - Intermediate Fabrication (5 cr)

This course offers practical lab experience using the skills acquired in the first quarter theory and lab courses. Layout and fabrication of a variety of welding projects are emphasized. Prerequisite: Concurrent enrollment in WELD 123, 124, 125 or permission of instructor. (SCC)

#### WELD 133 – Advanced Blueprint Reading (2 cr)

This course continues the concepts introduced in WELD 114 and 123 with emphasis on the interpretation of complex working drawings applying design, layout and sequence of fabrication factors. Prerequisite: Concurrent enrollment in WELD 134, 135, 136 or permission of instructor. (SCC)

#### WELD 134 - Specialty Welding Theory (4 cr)

This course introduces metallurgy and other welding processes such as gas tungsten arc welding, gas metal arc welding and flux core arc welding. Prerequisite: Concurrent enrollment in WELD 133, 135, 136 or permission of instructor. (SCC)

#### WELD 135 – Specialty Welding Applications (8 cr)

This course offers practical applications in equipment setup and operational procedures used in a variety of welding processes. Safety considerations and X-ray quality welding are emphasized. Prerequisite: Concurrent enrollment in WELD 133, 134, 136 or permission of instructor. (SCC)

# WELD 136 - Advanced Fabrication (2 cr)

This course offers practical applications in the layout and fabrication of metal projects utilizing the appropriate welding processes and fabrication equipment. Prerequisite: Concurrent enrollment in WELD 133, 134, 135 or permission of instructor. (SCC)

#### WELD 165 - Oxy-Acetylene Welding (1 cr)

Students are trained in the selection and use of oxy-acetylene welding and cutting equipment and supplies to perform basic maintenance, repair and construction jobs encountered in various mechanical fields. Prerequisite: Permission of instructor. (SCC)

# WELD 168 - Arc Welding (1 cr)

Students are trained in the selection and use of arc welding equipment and supplies to perform basic maintenance, repair and construction jobs encountered in various mechanical fields. Prerequisite: Permission of instructor. (SCC)

#### WELD 266 - Cooperative Education Seminar (1-2 cr)

For course description, see Cooperative Education. (SCC)

# WELD 267 – Cooperative Education Work Experience (1-18 cr)

For course description, see Cooperative Education. (SCC)

# WOMENS STUDIES

# WS 201 — Women of Our World (5 cr)

This course embarks on a global journey that seeks awareness of how women from around the world live and work. Students explore the differences and similarities in the social expectations of American women and women from around the world. Topics include but are not limited to the work of women in other cultures, reproductive rights and realities of women in other cultures, motherhood and homemaking in other cultures, and equality between women and men in other cultures. (SCC)

# ZOOLOGY

# ZOOL 121 – Invertebrate Zoology (5 cr)

Basic structure of animals, comprehensive survey of invertebrate phyla, anatomy and ecological relationships. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC, SFCC)

# ZOOL 122 – Vertebrate Zoology (5 cr)

Anatomy, physiology, evolution and ecology of fish, amphibians, reptiles, birds and mammals. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC, SFCC)

# COURSE DESCRIPTIONS