Program Outlines

For the most current information on career and technical program offerings at SCC and SFCC, view our programs online at:
http://icatalog.ccs.spokane.edu/program/default.aspx

ACCOUNTING: SCC

Accounting Assistant
Associate in Applied Science

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 an above–average aptitude for working with numbers and the ability to concentrate and communicate. In addition, students should be detail oriented and able to work within timed deadlines. Accounting affords a continuing challenge to creative, alert minds.

In addition to earning an AAS at the completion of the six–quarter program, students will earn an Accounting Clerk Certificate after completing the first three–quarters of the AAS degree. The degree is ideally arranged for a fall quarter start; however, you may start any quarter with the assistance of an advisor to re–arrange the course sequence.

All students graduating from this program must have a minimum grade of 2.0 in each of the accounting, business, economics, management, and management information systems courses. Students must also have a 2.0 cumulative minimum grade point average in all required courses in this program.

With the assistance of a program advisor, these courses can be sequenced so the degree can be completed fully online. This degree is non–transferable to a four–year university. Students working toward the associate in arts degree for transfer to a four–year institution should consult individually with an advisor or counselor for planning the Business DTA or AA degree program. For information on Business DTA and AA degree requirements, refer to the Degree and Certificate Requirements section of the CCS catalog.

First Quarter

ACCT	151	College Accounting I [1]	5
BT	152	College and Career Strategies	3
BUS	103	Basic Business Math and Electronic Calculators	5
		Total	**13**

Second Quarter

ACCT	141	QuickBooks Online	5
ACCT	152	College Accounting II [1]	5
BT	204	Spreadsheet Design and Analysis	5
		Total	**15**

Third Quarter

ACCT	161	Payroll Procedures	5
ACCT	162	Business Tax Accounting	2
BT	272	Business Correspondence [2]	5
BUS&	101	Intro to Business	5
		Total	**17**

Fourth Quarter

ACCT	212	Accounting Applications and Analysis [3]	5
ACCT	221	Tax I: Individual Income Tax	5
MIS	211	Information Technology In Business	5
		Total	**15**

Fifth Quarter

ACCT	204	Accounting Integration	5
BUS&	201	Business Law	5
ECON	100	Fundamentals of Economics	5
		Total	**15**

Sixth Quarter

ACCT	288	Cooperative Education Work Experience (No Seminar)	2
BUS	280	Human Relations in Business	5
		Business Electives [4]	8
		Total	**15**

90 credits are required for the Associate in Applied Science

Business Electives

BT	160	Job Preparation Techniques	3
BUS	100	Money Management	3
BUS	217	Business Statistics	5
CATT	120	Microsoft Word I	2.5
CATT	241	Microsoft Project	2.5
ECON&	201	Micro Economics	5
ECON&	202	Macro Economics	5
MMGT	101	Principles of Management	5
MMGT	181	Leadership Training-DEC	1-5
MMGT	205	Small Business Planning	5
MMGT	223	Customer Service	3
MMGT	243	Fundamentals of Project Management	5

1 These courses may be substituted with ACCT& 201 and 202.
2 This course may be substituted with BT 274 or permission of instructor.
3 May be substituted with ACCT& 203
4 Select courses from the list of approved business electives. Please see accounting department for additional options and additional accounting co–op credits.

Accounting Clerk
Certificate

As a paraprofessional in the accounting field, the accounting clerk analyzes, inputs the essential information about the operations of a business into the company's accounting system.

An accounting clerk should have an above–average aptitude for working with numbers and the ability to concentrate and communicate. In addition, students should be detail oriented and able to work within timed deadlines. Accounting affords a continuing challenge to creative, alert minds.

Students will earn an Accounting Clerk Certificate after completing the first three quarters of the AAS degree. Students can continue and earn an Accounting Assistant AAS after completing another three quarters of study. The

certificate is ideally arranged for a fall quarter start; however, you may start any quarter with the assistance of an advisor to rearrange the course sequence.

All students graduating with this certificate must have a minimum grade of 2.0 in each of the accounting, economics, business, management, and management information systems courses. Students must also have a 2.0 cumulative minimum grade point average in all required courses in this program.

With the assistance of a program advisor, these courses can be sequenced so the certificate can be completed fully online.

First Quarter

ACCT	151	College Accounting I [1]	5
BT	152	College and Career Strategies	3
BUS	103	Basic Business Math and Electronic Calculators	5
		Total	**13**

Second Quarter

ACCT	141	QuickBooks Online	5
ACCT	152	College Accounting II [1]	5
BT	204	Spreadsheet Design and Analysis	5
		Total	**15**

Third Quarter

ACCT	161	Payroll Procedures	5
ACCT	162	Business Tax Accounting	2
BT	272	Business Correspondence [2]	5
BUS&	101	Intro to Business	5
		Total	**17**

45 credits are required for the Certificate

[1] These courses may be substituted with ACCT& 201 and 202.

[2] May be substituted with BT 274 or permission of instructor.

ADDICTION STUDIES: SFCC

Addiction Studies
Associate in Applied Science

The AAS in Addiction Studies is a two–year educational training program for people who do not have at least 45 prior college credits. The degree fulfills educational requirements to become a Substance Use Disorder Professional (SUDP). Washington State requires an associate 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 substance use disorder profession and shall include specific competencies defined by the state. The AAS in Addiction Studies satisfies all the state educational requirements as outlined in the WAC 246–811–030 code.

Students will be required to have a grade of 2.0 or better in all courses for the degree (except BUS 123, MATH& 107 or MATH& 146) in order to graduate from the program.

Courses

A. Program Courses (all required)		71
B. Program Support / Related Instruction Courses (all required)		10
C. Computation Course (choose 5 credits)		5
D. Program Electives (Choose 4 credits)		4
Total		**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

AS	131	Survey of Addictions	5
AS	141	Law, Ethics, and Professional Development for Addiction Counseling	5
AS	172	Family Systems and Adolescent Treatment in Addictions	5
AS	176	Addiction Counseling Techniques	5
AS	182	Cultural Diversity; Risk Intervention for Health/HIV	5
AS	221	Treatment Theories for Addictions	5
AS	250	NAADAC Exam Prep	1
AS	275	Physiological Actions of Alcohol and Drugs	5
AS	277	Group Facilitation for Addiction Treatment	5
AS	279	Case Management I: Screening, Diagnosis, Assessment, and ASAM	5
AS	280	Case Management 2: Treatment Planning and Continuing Care	5
AS	281	Practicum I [1]	5
AS	282	Practicum II [1]	5
AS	290	Co-Occurring Behavioral Health Disorders	5
PSYC&	200	Lifespan Psychology [2]	5

B. Program Support / Related Instruction Courses (all required)

ENGL&	101	English Composition I	5
PSYC&	100	General Psychology	5

C. Computation Course (choose 5 credits) [3]

BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5
MATH&	146	Introduction to Stats	5

D. Program Electives (Choose 4 credits)

BT	100	Beginning Keyboarding	1
CAPPS	100	Beginning Computer Skills	3
CAPPS	102	Introduction to Office	1
CAPPS	141	Word I	2
CAPPS	142	Word II	2
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
CAPPS	171	PowerPoint I	2

[1] Practicum hours must be performed at an approved Substance Use Disorder treatment field site.

[2] PSYC& 200: May substitute with ICS 235 (Growth & Development Across the Lifespan)

[3] Students planning to earn a BAS degree in Integrated Behavioral Health should take MATH& 146 (Intro to Statistics) instead of BUS 123. Students planning to transfer to a university should consider taking MATH& 107 instead of BUS 123.

ADMINISTRATIVE ASSISTANT: SCC

Administrative Clerical Assistant
Certificate

The Clerical Assistant program is a two quarter program where students learn general office skills needed for entry–level office positions. This certificate provides students with additional grammar, editing and proofreading experience. Students develop effective written communication, oral communication, customer service, keyboarding, document formatting, office procedures, telephone, scheduling, and calendaring, and job preparation skills.

Students who earn the Administrative Assistant AAS degree will also earn this certificate because it is embedded in the degree. If you have any questions, please contact counseling.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
CATT	190	Microsoft PowerPoint I	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

30 credits are required for the Certificate

ADMINISTRATIVE OFFICE MANAGEMENT: SCC

Administrative Office Management
Associate in Applied Science

The Administrative Office Management program is an associate degree program that prepares students to assume positions as office managers, supervisors, or as assistants to executives. Students will develop administrative skills necessary to participate as part of the management team, assist in planning, organizing, and controlling information related activities, and lead or direct people to attain the objectives of the organization. They may handle a wide range of daily responsibilities including the supervision of support services.

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 with this degree receive training in a variety of office management functions including those in communications, information resources, and management.

In order to earn an Administrative Office Management AAS degree, a student must maintain a 2.0 GPA in all individual courses. Math placement may be required depending on the math course you choose. Math options are detailed below.

First Quarter

BT	106	Computing Essentials	5
CATT	102	Microsoft Outlook	2.5
MMGT	243	Fundamentals of Project Management	5
MMGT	244	Introduction to Lean Six Sigma	2.5
		Total	**15**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	165	Word Processing	5
CATT	241	Microsoft Project	2.5
MMGT	256	Lean Leadership	5
		Total	**15.5**

Third Quarter

BT	231	Office Procedures	5
BT	272	Business Correspondence [1]	5
MATH&	146	Introduction to Stats [2]	5
		Total	**15**

Fourth Quarter

BT	204	Spreadsheet Design and Analysis	5
BT	273	Business Research and Report Writing	5
CATT	122	Microsoft Access I	2.5
CATT	190	Microsoft PowerPoint I	2.5
		Total	**15**

Fifth Quarter

ACCT&	201	Principles of Accounting I [3]	5
BT	251	Current Trends in Technology	5
BT	260	Administrative Office Management	5
		Total	**15**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	263	Integrated Office Applications	5
BT	285	Administrative Professional Internship	2
		Electives	5
		Total	**15**

90.5 credits are required for the Associate in Applied Science

Electives

ACCT	141	QuickBooks Online	5
ACCT	142	QuickBooks Desktop	5
ACCT	151	College Accounting I	5
BT	152	College and Career Strategies	3
BT	274	Business Writing for the Web	5
BT	280	Project Management for the Office	2.5
BUS&	101	Intro to Business [4]	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	217	Business Statistics	5
BUS	280	Human Relations in Business	5
CATT	123	Microsoft Access II	2.5
CATT	128	Desktop Publishing	2.5
CATT	191	Microsoft PowerPoint II	2.5
CMST&	101	Introduction to Communication	5
CMST	127	Leadership Development	5
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5
CMST	227	Intercultural Communication	5

CMST&	230	Small Group Communication	5
CMST	250	Managing Conflict Through Communication	5
CMST	287	Communication in Organizations	5
ECON	100	Fundamentals of Economics	5
ECON&	201	Micro Economics	5
ECON&	202	Macro Economics	5
ENGL&	101	English Composition I	5
HM	221	Event Management	5
LA	107	Introduction to Legal Careers	3
LA	130	Legal Ethics	3
MATH	201	Introduction to Finite Mathematics	5
MATH	72	Essentials of Algebra 2	5
MATH	98	Algebra III	5
MIS	211	Information Technology In Business	5
MMGT	125	Social Media Marketing	5
MMGT	212	Retailing	5

1 May be substituted with BT 274

2 BUS 217 requires a prerequisite course or appropriate placement score. BUS 217 may be substituted with MATH 201, MATH& 146, or BUS 104.

3 May be substituted with ACCT 151.

4 Recommended for students transferring to SFCC's BAS in Applied Management

5 Only offered at SFCC

AGRICULTURE: SCC

Agriculture Business
Certificate

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry, farming operations as well as local, state, and federal governmental agencies. Program graduates are qualified for advancement into sales, service, field representative, technician and management positions.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGHRT	116	Green Industry Business Management [2]	5
AGHRT	184	AgHort Occupational Preparation [1]	1
CIS	110	Introduction to Computer Applications [3]	5
ENVS	210	Environmental Soil Science	5
		Total	**16**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
BUS	103	Basic Business Math and Electronic Calculators	5
MMGT	101	Principles of Management	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
BUS	104	Business Mathematics [2]	5
ENVS	110	Plant Biology [2]	5
		Total	**15**

47 credits are required for the Certificate

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 Keyboard skills are required.

Agriculture Business
Associate in Applied Science

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry, farming operations as well as local, state, and federal governmental agencies. Program graduates are qualified for advancement into sales, service, field representative, technician and management positions.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGHRT	116	Green Industry Business Management [2]	5
AGHRT	184	AgHort Occupational Preparation [1]	1
CIS	110	Introduction to Computer Applications [3]	5
MMGT	101	Principles of Management	5
		Total	**16**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
BUS	103	Basic Business Math and Electronic Calculators	5
ENVS	210	Environmental Soil Science	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
BUS	104	Business Mathematics [2]	5
ENVS	110	Plant Biology [2]	5
		Total	**15**

Fourth Quarter

AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
ECON	100	Fundamentals of Economics [5]	5
ENGL&	101	English Composition I	5
		Total	**12**

Fifth Quarter

AGHRT	219	Soil Management and Fertility [2]	5
BUS	280	Human Relations in Business [2]	5
WATER	109	Introduction to Water Resources	5
		Total	**15**

Sixth Quarter

ACCT	151	College Accounting I [4]	5
AGHRT	225	Weed Biology and Control	5
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Total	**17**

91 credits are required for the Associate in Applied Science

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 Keyboard skills are required. Related education requirement.

4 This course may be substituted with ACCT& 201.

5 ECON may be substituted with a higher level ECON course.

Agriculture Technology Certificate

The Agriculture Technology program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry, farming operations as well as local, state, and federal governmental agencies. The program includes training in GPS and GIS technologies which are key components of precision agriculture applications. Program graduates are qualified for advancement into sales, service, field representative, technician and management positions.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	210	Environmental Soil Science [2]	5
NATRS	112	Natural Resources Mathematical Applications [2]	5
NATRS	120	Basic Computer Applications in Natural Resources [2]	2
		Total	**13**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
NATRS	122	Natural Resources Trigonometric Applications [2]	5
NATRS	204	Maps and Aerial Photo Interpretation [2]	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
ENVS	110	Plant Biology [2]	5
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	230	Global Positioning Systems [2]	3
		Total	**18**

47 credits are required for the Certificate

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirements.

Agriculture Technology Associate in Applied Science

The Agriculture Technology program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry, farming operations as well as local, state, and federal governmental agencies. The program includes training in GPS and GIS technologies which are key components of precision agriculture applications. Program graduates are qualified for advancement into sales, service, field representative, technician and management positions.

The following Is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
NATRS	112	Natural Resources Mathematical Applications [2]	5
NATRS	120	Basic Computer Applications in Natural Resources [2]	2
		Total	**13**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
NATRS	122	Natural Resources Trigonometric Applications [2]	5
NATRS	204	Maps and Aerial Photo Interpretation [2]	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
ENVS	210	Environmental Soil Science [2]	5
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	230	Global Positioning Systems	3
		Total	**18**

Fourth Quarter

AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	116	Green Industry Business Management [2]	5
		Electives [3]	5
		Total	**12**

Fifth Quarter

AGHRT	219	Soil Management and Fertility [2]	5
NATRS	221	Applications in Geographic Information Systems	4
WATER	109	Introduction to Water Resources	5
		Total	**14**

Sixth Quarter

AGHRT	225	Weed Biology and Control	5
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Electives [3]	5
		Total	**17**

90 credits are required for the Associate in Applied Science

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirements.

3 Electives may include any liberal arts, career, or technical course number 100 or higher.

Spray Technician Certificate

The Agriculture Business program is designed to train students for entry–level 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.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [1]	2
AGHRT	104	Principles of Pest Management	5
		Total	**9**

9 credits are required for the Certificate

1 Students are advised to check with the instructional dean to determine which quarter this course will be offered.

APPLIED MANAGEMENT BACHELORS: SFCC

Applied Management Bachelor of Applied Science

SFCC's Bachelor of Applied Management (BASAM) is a two–year online degree that can be added on top of an existing associate degree. This program is ideal for students and working adults who would like to advance their education and take their career to the next level. High performance managers are needed in every industry and sector. The BASAM program prepares students to enter their respective career fields with a bachelor's degree that provides managerial knowledge and expertise to become a more confident leader. Students will learn how to develop sustainable, successful business strategies by using current managerial approaches and tools to gather, analyze, and interpret information from a variety of perspectives to make informed, reasoned, and equitable decisions.

Within the four years of an applied baccalaureate degree, general education credits must include a minimum of 50 quarter hours of distribution credits from a minimum of five distribution areas:

- Ten (10) credits of communication skills, including one English composition course, e.g. ENGL& 101. Remaining credits may be an additional composition course or designated writing courses or courses in basic speaking skills (e.g., speech, rhetoric, or debate).
- Five (5) credits of quantitative/symbolic reasoning skills
- Five (5) credits of humanities
- Five (5) credits of social sciences
- Five (5) credits of natural science with a lab component
- 20 credits of electives from the generally transferable list of courses

Typically, at least 15 general education credits are satisfied at the associate degree level as confirmed by entrance pre–requisites, and the remaining 35 credits are satisfied with courses in the BAS program. General education requirements and courses recommendation are outlined in the following table.

Students must first complete an AA or AAS degree in order to be admitted to a BAS program.

Courses

_AA or AAS Degree	90
A. Program Courses (all required)	45
B. Program Electives (10 credits)	10
C. General Education / Program Support (all required)	30
D. Lab Science (5 credits)	5
Total	**180**

180 credits are required for the Bachelor of Applied Science

A. Program Courses (all required)

ACCT	320	Accounting and Finance for Managers	5
BMGT	341	Applied Principles of Management	5
BMGT	342	Project Management	5
BMGT	344	Business Information Systems	5
BMGT	350	Marketing for Managers	5
BMGT	428	Human Resource Management	5
BMGT	435	Operations Management	5
BMGT	491	Capstone Project	5
BMGT	492	Business Management Internship [1]	5

B. Program Electives (10 credits) [2]

BMGT	440	Healthcare Management	5
BMGT	441	Health Care Operations	5
BMGT	445	Applied Professional Sales	5
BMGT	450	Entrepreneurship	5

C. General Education / Program Support (all required)

CMST	320	Professional Communication	5
CMST	430	Organizational Communication	5
ENGL	335	Technical and Professional Writing	5
MATH&	146	Introduction to Stats	5
PHIL	330	Professional Ethics	5
PSYC	333	Motivation	5

D. Lab Science (5 credits) [3]

ASTR&	101	Intro to Astronomy	5
ENVS&	101	Intro to Env Science	5
PHYS	100	Introductory Physics	5

1 BMGT 492 (Internship) may be substituted with BMGT 393 (Independent Study) or MMGT 267 (Co–op).
2 Program Elective Choices (10 credits) — ENTREPRENEURSHIP: Take BMGT 445 and 450 | HEALTHCARE: Take BMGT 440 and 441
3 Other lab–science options may be taken from the AA Science distribution list. Please see advisor for questions regarding lab–science options.

APPRENTICESHIPS: SCC

Multi-Occupational Trades
Associate in Applied Science

Apprenticeship is a combination of on–the–job training (OJT) and related classroom instruction under the supervision of a journey–level craft person or trade professional in which workers learn the practical and theoretical aspects of a highly skilled occupation. After completing an apprenticeship program, the worker's journey–level status provides an additional benefit of nationwide mobility at journey level scale.

A journey–level worker is an individual who has sufficient skills and knowledge of a trade, craft, or occupation, either through formal apprenticeship training or through practical on–the–job work experience, to be recognized by a state or federal registration agency and/or an industry as being fully qualified to perform the work of the trade, craft, or occupation. Practical experience must be equal to or greater than the term of apprenticeship.

The Multi–Occupations AAS recognizes the stringent requirements, on–the–job training and related classroom instruction of each individual trades. A minimum of 6,000 clock hours of OJT and 450 hours of related classroom instruction along with an additional 30 program credits will meet the requirements of the AAS degree.

The AAS is only open to apprentices enrolled in a local JATC approved apprenticeship training program or journey–level workers which have completed an approved 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 30 program credits, 6000 OJT hours and 450 hours of related supplemental instruction will meet the requirement of AAS degree candidates.

Students who complete the Multi–Occupation AAS degree are eligible to apply for acceptance to four year universities. Prior to taking courses in this program, students who intend to further their education at a university should consult an academic advisor at SCC or the transferring university.

Courses

450 Theory Clock Hours	0
6000 Technical Clock Hours	0
Related Education	15
Required General Education	15
Total	**30**

30 credits are required for the Associate in Applied Science

Related Education

CIS	110	Introduction to Computer Applications	5
CMST	227	Intercultural Communication [1]	5
MMGT	101	Principles of Management	5

Required General Education

ENGL&	101	English Composition I	5
MATH&	107	Math in Society [2]	5
PSYC&	100	General Psychology	5

1 This course may be substituted with CMST& 210, CMST 127, or CMST 287.
2 BUS 103 may be substituted for MATH& 107 for students not seeking to transfer.

ARBORICULTURE URBAN FORESTRY: SCC

Arboriculture/Urban Forestry
Certificate

The Arboriculture program provides a study of ornamental trees; from selection and installation to irrigation, fertilization, pruning and care. Students learn how to identify, assess, diagnose and treat tree problems, as well as learn how to use the advanced arboriculture equipment and techniques. At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials [2]	5
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**15**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
ENVS	110	Plant Biology [2]	5
		Total	**16**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	201	Landscape Installation [2]	4
ENVS	210	Environmental Soil Science [2]	5
		Total	**15**

46 credits are required for the Certificate

1 AGHRT 184 and 185 are related education requirements.
2 Related education requirement.

[3] May be substituted with CIS 105 or CIS 110. Related education requirement.

Arboriculture/Urban Forestry
Associate in Applied Science

The Arboriculture program provides a study of ornamental trees; from selection and installation to irrigation, fertilization, pruning and care. Students learn how to identify, assess, diagnose and treat tree problems, as well as learn how to use the advanced arboriculture equipment and techniques. At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**17**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management [2]	5
ENVS	110	Plant Biology	5
		Total	**14**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	201	Landscape Installation [2]	4
ENVS	210	Environmental Soil Science [2]	5
		Total	**15**

Fourth Quarter

AGHRT	115	Pruning	2
AGHRT	204	Landscape Design 1 [2]	4
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
AGHRT	234	Bidding and Estimating	3
		Total	**16**

Fifth Quarter

AGHRT	202	Principles of Irrigation [2]	4
AGHRT	219	Soil Management and Fertility [2]	5
AGHRT	228	Arboriculture [2]	5
		Total	**14**

Sixth Quarter

AGHRT	235	Advanced Arboriculture [2]	5
AGHRT	236	Arboriculture Tools and Equipment	2
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	230	Global Positioning Systems	3
		Total	**15**

91 credits are required for the Associate in Applied Science

[1] AGHRT 184 and 185 are related education requirements.

[2] Related education requirement.

[3] May be substituted with CIS 105 or CIS 110. Related education requirement.

ARCHITECTURE: SCC

Architectural Technology
Certificate

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3–D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 pm, Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2–D and 3–D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting 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.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this

program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS–T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.
The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing 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 study of the International Building Code.

First Quarter

ARCHT	112	Introduction to Architectural Drafting [1]	5
ARCHT	120	Residential Architecture Theory	5
ARCHT	126	Introduction to Computer Aided Drafting	5
		Total	**15**

Second Quarter

ARCHT	114	Architectural Math [2]	3
ARCHT	122	Architectural Design 1 [1]	7
ARCHT	130	Residential Building Materials [1]	4
ARCHT	134	Electrical and Mechanical Systems [1]	4
		Total	**18**

Third Quarter

ARCHT	124	Advanced Architectural Math [2]	2
ARCHT	125	Residential Building Codes [1]	2
ARCHT	132	Introduction to Construction Documents/CAD	8
ARCHT	139	Delineation	5
		Total	**17**

50 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 ARCHT 114 and ARCHT 124 may be substituted with COMPASS scores of M2=77, M3=60, and M4=44. Students meeting these test score requirements and seeking Prior Learning Assessment evaluation should work with their instructor and the Prior Learning Assessment area for credit evaluation.

Architectural Technology
Associate in Applied Science–Transfer

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3–D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 pm, Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2–D and 3–D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting 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.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS–T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.

The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing 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 study of the International Building Code.

First Quarter

ARCHT	112	Introduction to Architectural Drafting	5
ARCHT	120	Residential Architecture Theory	5
ARCHT	126	Introduction to Computer Aided Drafting	5
ART&	100	Art Appreciation	5
		Total	**20**

Second Quarter

ARCHT	122	Architectural Design 1	7
ARCHT	130	Residential Building Materials	4
ARCHT	134	Electrical and Mechanical Systems	4
		Total	**15**

Third Quarter

ARCHT	125	Residential Building Codes	2
ARCHT	132	Introduction to Construction Documents/CAD	8
ARCHT	139	Delineation	5
MATH&	141	Precalculus I	5
		Total	**20**

Fourth Quarter

ARCHT	238	Introduction to Commercial Drafting/Design	6
ARCHT	242	Commercial Construction Documents/CAD	4
ARCHT	246	Commercial Architecture Theory	5
		General Electives	5
		Total	**20**

Fifth Quarter

ARCHT	225	Portfolio	1
ARCHT	240	Commercial Building Codes	3
ARCHT	250	Introduction to Commercial Building Materials	4
ARCHT	252	Advanced Commercial Construction Documents/CAD	8
ENGL&	101	English Composition I	5
		Total	**21**

Sixth Quarter

ARCHT	215	Issues in Sustainable Architecture	5
ARCHT	262	Electrical Mechanical Systems Application/CAD	6
ARCHT	263	Advanced Commercial Building Materials	4
CMST&	220	Public Speaking	5
		Total	**20**

116 credits are required for the Associate in Applied Science–Transfer

General Electives

MATH&	142	Precalculus II	5
PHYS	101	General Physics	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

Architectural Technology
Associate in Applied Science

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3–D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 pm, Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2–D and 3–D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting 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.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS–T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.

The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing 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 study of the International Building Code.

In the final quarter, students are allowed to choose between the on–campus option of completing 15 credits of ARCHT 215, 262, and 263 or they may opt for 15 credits of experiential learning off–campus version of ARCHT 266 and 267. Please meet with the Architecture faculty to choose the option that works best for you and your goals. Students will not be allowed to switch back except for extenuating circumstances at the discretion of the department chair and division dean.

First Quarter

ARCHT	112	Introduction to Architectural Drafting	5
ARCHT	120	Residential Architecture Theory [1]	5
ARCHT	126	Introduction to Computer Aided Drafting	5
		Total	**15**

Second Quarter

ARCHT	114	Architectural Math	3
ARCHT	122	Architectural Design 1 [1]	7
ARCHT	130	Residential Building Materials [1]	4
ARCHT	134	Electrical and Mechanical Systems [1]	4
		Total	**18**

Third Quarter

ARCHT	124	Advanced Architectural Math	2
ARCHT	125	Residential Building Codes [1]	2
ARCHT	132	Introduction to Construction Documents/CAD	8
ARCHT	139	Delineation	5
		Total	**17**

Fourth Quarter

ARCHT	238	Introduction to Commercial Drafting/Design	6
ARCHT	242	Commercial Construction Documents/CAD	4
ARCHT	246	Commercial Architecture Theory	5
		Total	**15**

Fifth Quarter

ARCHT	225	Portfolio	1
ARCHT	240	Commercial Building Codes	3
ARCHT	250	Introduction to Commercial Building Materials	4
ARCHT	252	Advanced Commercial Construction Documents/CAD	8
		Total	**16**

Sixth Quarter

ARCHT	215	Issues in Sustainable Architecture [2]	5
ARCHT	262	Electrical Mechanical Systems Application/CAD [2]	6
ARCHT	263	Advanced Commercial Building Materials [2]	4
		Total	**15**

96 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 Students may substitute ARCHT 215, 262, & 263 for the experiential learning option of ARCHT 266 and 267 for 15 credits. This option does not extend to Architecture AS–T students.

AUDIO ENGINEERING: SFCC

Audio Engineering Certificate

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 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 live sound reinforcement, location recording, basic principles of synthesis and MIDI technology and gain a thorough understanding of the delivery formats used in music production. Students also receive training on state of the art digital audio workstations. Starting the first year and again in the second year of study, each student completes a major studio–recording project that involves recording, editing and mixing a student or professional band and culminates in developing an audio portfolio for inclusion in their professional resume. The first year also includes basic music theory, functional piano skills and study of the business aspects of the music and entertainment industries.

The second year of the degree program provides intensive study of digital audio workstations as well as advanced study and implementation of recording techniques and live sound engineering as students develop their recording, editing and mixing skills. Students will also hone their audio production skills with classes in advanced MIDI production and arrangement techniques, contemporary harmony, song writing and scoring for film, TV and multi–media. System set up and maintenance is also addressed in the second year providing students with an understanding of electronics and maintenance procedures relative to the recording industry. Finally, in the sixth quarter of study, students participate in an audio internship where they gain experience working on location at a professional recording studio, post–production facility or live sound venue.

Admission Requirements

- Admission to Audio Engineering requires students to complete an application process, which includes a college application, placement scores in reading, writing and math, an essay and an interview. So long as there is room in the program, ALL students who complete the application process are admitted. If the number of applicants exceeds the number of available slots, students are selected for admission based on their placement scores (reading, writing, and math), knowledge of audio engineering and music, communication skills (written and spoken) and goals. For detailed information regarding the application process, visit the Audio Engineering website and select the "Special Application Requirements" tab.

Courses

A. Program Courses (all required)	38
B. Program Elective (3 credits / see advisor for options) [1]	3
Total	**41**

41 credits are required for the Certificate

A. Program Courses (all required)

AUDIO	113	Live Sound and Location Recording I	4
AUDIO	116	Music Basics for Audio Professionals [2]	5
AUDIO	117	Introduction to Music Technology	4
AUDIO	120	Digital Audio I	4
AUDIO	121	Digital Audio II	4
AUDIO	151	Audio Project I	1
AUDIO	155	Introduction to Recording	5
AUDIO	156	Audio Engineering I	4
MUSC	114	Contemporary Harmony	3
MUSC	166	Functional Piano I [3]	2
MUSC	167	Functional Piano II [3]	2

B. Program Elective (3 credits/see advisor for options)

MUSC	148	Jazz Big Band [1]	3

1 MUSC 148 is just one of many possible program elective courses. Consult your advisor to choose the best program elective.

2 AUDIO 116 may be substituted with MUSC& 141.

3 Please consult with AUDIO faculty advisor prior to selecting course in functional piano.

Audio Engineering
Associate in Applied Science

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 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 live sound reinforcement, location recording, basic principles of synthesis and MIDI technology and gain a thorough understanding of the delivery formats used in music production. Students also receive training on state of the art digital audio workstations. Starting the first year and again in the second year of study, each student completes a major studio–recording project that involves recording, editing and mixing a student or professional band and culminates in developing an audio portfolio for inclusion in their professional resume. The first year also includes basic music theory, functional piano skills and study of the business aspects of the music and entertainment industries.

The second year of the degree program provides intensive study of digital audio workstations as well as advanced study and implementation of recording techniques and live sound engineering as students develop their recording, editing and mixing skills. Students will also hone their audio production skills with classes in advanced MIDI production and arrangement techniques, contemporary harmony, song writing and scoring for film, TV and multi–media. System set up and maintenance is also addressed in the second year providing students with an understanding of electronics and maintenance procedures relative to the recording industry. Finally, in the sixth quarter of study, students participate in an audio internship where they gain experience working on location at a professional recording studio, post–production facility or live sound venue.

Admission Requirements

- Admission to Audio Engineering requires students to complete an application process, which includes a college application, placement scores in reading, writing and math, an essay and an interview. So long as there is room in the program, ALL students who complete the application process are admitted. If the number of applicants exceeds the number of available slots, students are selected for admission based on their placement scores (reading, writing, and math), knowledge of audio engineering and music, communication skills (written and spoken) and goals. For detailed information regarding the application process, visit the Audio Engineering website and select the "Special Application Requirements" tab.

Courses

A. Program Courses (all required)	83-85
B. Communication Related Instruction (choose 1 course) [1]	5
C. Computation Related Instruction (choose 1 course) [1]	5
D. Hum Relations/Leadership Related Instruction (choose 1 course) [1]	5
Total	**98–100**

98-100 credits are required for the Associate in Applied Science

A. Program Courses (all required)

AUDIO	113	Live Sound and Location Recording I	4
AUDIO	116	Music Basics for Audio Professionals [2]	5
AUDIO	117	Introduction to Music Technology	4
AUDIO	120	Digital Audio I	4
AUDIO	121	Digital Audio II	4
AUDIO	151	Audio Project I	1
AUDIO	155	Introduction to Recording	5
AUDIO	156	Audio Engineering I	4
AUDIO	205	MIDI Arranging	5
AUDIO	206	Scoring for Film and Multi-Media [3]	5
AUDIO	213	Live Sound II	4
AUDIO	217	System Setup and Maintenance	3
AUDIO	218	Digital Audio III	5
AUDIO	219	Digital Audio IV	5
AUDIO	220	Digital Audio V	5
AUDIO	251	Audio Projects II	1
AUDIO	255	Audio Engineering II	4
AUDIO	260	Audio Portfolio	1
AUDIO	266	Cooperative Education Seminar	1
AUDIO	267	Cooperative Education Work Experience	1-3
MUSC	114	Contemporary Harmony	3
MUSC	166	Functional Piano I [4]	2
MUSC	167	Functional Piano II [4]	2
MUSC	214	Contemporary Harmony II/Songwriting	5

B. Communication Related Instruction (choose 1 course) [1]

CMST&	101	Introduction to Communication	5
CMST	121	Job Communication Skills	5
CMST&	210	Interpersonal Communication	5
CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5

C. Computation Related Instruction (choose 1 course) [1]

BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5
MATH	87	Algebra for Math Literacy I	5
MATH	88	Algebra for Math Literacy II	5
MATH	90	Algebra for STEM	5

D. Hum Relations/Leadership Related Instruction (choose 1 course) [1]

ANTH&	206	Cultural Anthropology	5
AUDIO	159	Business of Music	5
BUS	280	Human Relations in Business	5
HUM	107	Introduction to Cultural Studies	5
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
POLS	125	Introduction to Global Issues	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
SOC&	201	Social Problems	5
SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

1 A minimum of 5 credits of related instruction must be taken in each area of competency; Communications, Computation, Human Relations/Leadership. Please consult with faculty advisor prior to selecting related instruction courses. A class cannot be used to fulfill more than one area.

2 AUDIO 116 may be substituted with MUSC& 141.

3 AUDIO 206 may be substituted with AUDIO 256.

4 Please consult with AUDIO faculty advisor prior to selecting course in functional piano.

AUTOMOTIVE COLLISION AND REFINISHING: SCC

Automotive Collision and Refinishing Technician
Associate in Applied Science

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching, and application of the latest paint materials including water–born products.

Students are instructed in the mathematical skills necessary to succeed in the automotive industry. Geometry and units of measurement will be covered in the structural frame and repair unit. Computations will be covered in the estimating and vehicle damage analysis portion of the program. Ratios, volumes, and conversions will be taught in the paint mixing section of the program. Any other necessary mathematical skills will be taught throughout the program when needed.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

ABF	111	Shop Procedures Lab	3
ABF	115	Basic Metal Straightening and Panel Alignment Lab	3
ABF	116	Parts Identification Lab	2
ABF	117	Automotive Collision MIG Welding	3
ABF	211	Shop Procedures	1
ABF	215	Basic Metal Straightening and Panel Alignment	1
ABF	216	Parts Identification	1
APLED	121	Applied Written Communication [1]	4
		Total	**18**

Second Quarter

ABF	112	Introduction to Unibody Lab	5
ABF	212	Introduction to Unibody	2
ABF	244	Advanced Metal Straightening and Panel Alignment Methods Lab	5
ABF	247	Advanced Metal Straightening and Panel Replacement Methods	1
APLED	123	Leadership Skills for Business and Industry [1]	4
		Total	**17**

Third Quarter

ABF	123	Major Panel Replacement Lab	3
ABF	124	Mechanical Components Lab	3
ABF	125	Major Unibody and Frame Repair Lab	4
ABF	127	Major Panel Replacement	1
ABF	224	Mechanical Components	1
ABF	225	Major Unibody and Frame Repair	2
		Total	**14**

Fourth Quarter

ABF	133	Introduction to Industrial Safety and Hygiene Lab	1
ABF	134	Introduction to Interior and Exterior Surface Preparation Lab	2
ABF	135	Basic Polishing and Detailing	2
ABF	136	Introduction to Topcoat Systems and Application Procedures Lab	2
ABF	137	Basic Color Matching and Paint Mixing Fundamentals	3
ABF	233	Introduction to Industrial Safety and Hygiene	1
ABF	234	Introduction to Interior and Exterior Surface Preparation	1
ABF	236	Introduction to Topcoat Systems and Application Procedures	1
		Total	**13**

Fifth Quarter

ABF	138	Intermediate Interior and Exterior Surface Preparation Lab	3
ABF	139	Intermediate Paint Application, Color Matching, and Paint Mixing Lab	3
ABF	140	Materials and Cost Estimation Lab	2
ABF	141	Intermediate Finessing, Compounding, and Detailing	2
ABF	238	Intermediate Interior and Exterior Surface Preparation	1
ABF	239	Intermediate Paint Application, Color Matching, and Paint Mixing	1
ABF	240	Materials and Cost Estimation	2

APLED	125	Employment Preparation [1]	3
		Total	**17**

Sixth Quarter

ABF	270	Sheet Metal Restoration Welding Lab	3
ABF	271	Sheet Metal Shaping Lab	3
ABF	272	Bucks and Forms Lab	2
ABF	273	Sheet Metal and Restoration and Repair	3
ABF	275	Sheet Metal Restoration Welding	1
ABF	276	Sheet Metal Shaping	1
ABF	277	Bucks and Forms	1
		Total	**14**

Seventh Quarter

		Optional Summer Vinyl Wrapping Courses [2]	0-6
		Total	**0–6**

93-99 credits are required for the Associate in Applied Science

Optional Summer Vinyl Wrapping Courses [2]

ABF	180	Introduction to Vinyl Wrapping	1
ABF	181	Introduction to Vinyl Wrapping Lab	2
ABF	182	Basic Applications of Vinyl Wrapping	1
ABF	183	Basic Applications of Vinyl Wrapping Lab	2

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean. APLED 121 should be taken in the first quarter, APLED 123 in the second quarter, and APLED 125 in the third quarter, regardless of what quarter a student begins the program.

2 Completion of these courses (6 credits) will entitle the student to a certificate of completion issued by the Dean of Technical Education.

Automotive Collision Technician Certificate

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

ABF	111	Shop Procedures Lab	3
ABF	115	Basic Metal Straightening and Panel Alignment Lab	3
ABF	116	Parts Identification Lab	2
ABF	117	Automotive Collision MIG Welding	3
ABF	211	Shop Procedures	1
ABF	215	Basic Metal Straightening and Panel Alignment	1
ABF	216	Parts Identification	1
APLED	121	Applied Written Communication [1]	4
		Total	**18**

Second Quarter

ABF	112	Introduction to Unibody Lab	5
ABF	212	Introduction to Unibody	2
ABF	244	Advanced Metal Straightening and Panel Alignment Methods Lab	5
ABF	247	Advanced Metal Straightening and Panel Replacement Methods	1
APLED	123	Leadership Skills for Business and Industry [1]	4
		Total	**17**

Third Quarter

ABF	123	Major Panel Replacement Lab	3
ABF	124	Mechanical Components Lab	3
ABF	125	Major Unibody and Frame Repair Lab	4
ABF	127	Major Panel Replacement	1
ABF	224	Mechanical Components	1
ABF	225	Major Unibody and Frame Repair	2
		Total	**14**

49 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

Automotive Refinishing Technician Certificate

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

ABF	133	Introduction to Industrial Safety and Hygiene Lab	1
ABF	134	Introduction to Interior and Exterior Surface Preparation Lab	2
ABF	135	Basic Polishing and Detailing	2
ABF	136	Introduction to Topcoat Systems and Application Procedures Lab	2

ABF	137	Basic Color Matching and Paint Mixing Fundamentals	3
ABF	233	Introduction to Industrial Safety and Hygiene	1
ABF	234	Introduction to Interior and Exterior Surface Preparation	1
ABF	236	Introduction to Topcoat Systems and Application Procedures	1
		Total	**13**

Second Quarter

ABF	138	Intermediate Interior and Exterior Surface Preparation Lab	3
ABF	139	Intermediate Paint Application, Color Matching, and Paint Mixing Lab	3
ABF	140	Materials and Cost Estimation Lab [1]	2
ABF	141	Intermediate Finessing, Compounding, and Detailing	2
ABF	238	Intermediate Interior and Exterior Surface Preparation	1
ABF	239	Intermediate Paint Application, Color Matching, and Paint Mixing	1
ABF	240	Materials and Cost Estimation	2
APLED	125	Employment Preparation	3
		Total	**17**

30 credits are required for the Certificate

[1] This related education requirement may be met by any course or combination of courses approved by the instructional dean.

Restoration and Fabrication Certificate

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

Courses

ABF	270	Sheet Metal Restoration Welding Lab	3
ABF	271	Sheet Metal Shaping Lab	3
ABF	272	Bucks and Forms Lab	2
ABF	273	Sheet Metal and Restoration and Repair	3
ABF	275	Sheet Metal Restoration Welding	1
ABF	276	Sheet Metal Shaping	1
ABF	277	Bucks and Forms	1
		Total	**14**

14 credits are required for the Certificate

AUTOMOTIVE TECHNOLOGY: SCC

A1 Engine Repair Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available. Priority for space is given to students seeking a two–year AAS degree.

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.

Courses

AUTO	211	Theory of Engines	7
AUTO	212	Application of Engine Repair	5
		Total	**12**

12 credits are required for the Certificate

A2 Auto Transmissions/Transaxles Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.

This short–term certificate program introduces students to the theory and operation of automatic transmissions/transaxles. Students learn the principles of late model transmissions, transaxles and sub–assemblies.

Practical applications include the diagnosis and repair of all types of automatic transmissions/transaxle components.

Courses

AUTO	113	Theory of Auto Transmissions/Transaxles	6
AUTO	114	Application of Auto Transmissions/Transaxles	4
		Total	**10**

10 credits are required for the Certificate

A3 Manual Drive Train & Axles
Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.
This short–term certificate program introduces students to the theory and operation of manual transmissions/transaxles, differential, drive line, transfer case, and constant velocity joints. Students learn the principles of late model manual transmissions, transaxles and sub–assemblies. Practical applications include the diagnosis and repair of all types of manual transmissions/transaxles, transfer case, and differential components.

Courses

AUTO	129	Theory of Manual Drive Train/Transmissions	5
AUTO	130	Application of Manual Drive Train/Transmission	3
		Total	**8**

8 credits are required for the Certificate

A4 Suspension and Steering
Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.

This short–term certificate provides students with both theory and practical lab applications in automotive suspension and steering systems. Students gain experience in the diagnosis and repair of the following systems and components: power steering and suspension systems including MacPherson struts and four–wheel alignment.

Courses

AUTO	131	Theory of Suspension and Steering	5
AUTO	132	Application of Suspension and Steering	3
		Total	**8**

8 credits are required for the Certificate

A5 Brakes
Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.

This short–term certificate provides students with both theory and practical lab applications in automotive brake 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.

Courses

AUTO	111	Theory of Brakes	6
AUTO	112	Applications of Brakes	4
		Total	**10**

10 credits are required for the Certificate

A6 Electronics/Electrical Systems Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.

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.

Courses

AUTO	115	Theory of Electrical and Electronics	11
AUTO	116	Diagnosis of Electrical and Electronics	7
		Total	**18**

18 credits are required for the Certificate

A7 Engine Heating and Air Conditioning Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.

This short–term certificate program emphasizes heating and air conditioning systems and components. Students are introduced to heating and air conditioning systems and gain practical shop experience in their diagnosis and repair procedures.

Courses

AUTO	119	Theory of Heating and Air Conditioning	4
AUTO	120	Application of Heat and AC	2
		Total	**6**

6 credits are required for the Certificate

A8 Engine Performance Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

Automotive Technology students must enroll in and attend the full quarter in order to obtain any certificate(s) for the quarter. The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two year AAS degree.

This short–term certificate program emphasizes engine performance systems and components. Content areas include ignition systems, fuel and exhaust/emissions systems, theory of carburetion and ignition systems. Students are introduced to drivability systems and gain practical shop experience in their diagnosis and repair procedures. An electronics/electrical certificate must be earned before taking these courses.

Courses

AUTO	117	Theory of Engine Performance	11
AUTO	118	Application of Engine Performance	7
		Total	**18**

18 credits are required for the Certificate

Automotive Technology Certificate

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the four related classes identified in footnote 1 of the Automotive Technology AAS degree. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

The one–year certificate requires completion of any three quarters of the automotive technology program and the

four related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. 55–68 credits are required for the certificate.

Courses

APLED	112	Applied Mathematics [1]	4
APLED	113	Introduction to Computers for Technology [1]	2
APLED	121	Applied Written Communication [1]	4
APLED	123	Leadership Skills for Business and Industry [1]	4
		Any Three Quarters of AAS Degree [2]	41-54
		Total	**55–68**

55-68 credits are required for the Certificate

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.
2 The one–year certificate requires completion of any three quarters of the automotive technology program and the four related classes identified in the certificate option.

Automotive Technology
Associate in Applied Science

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 only in the first quarter. The one–year certificate requires completion of any three quarters of the Automotive Technology program and the four related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

The optional 7th or 4th quarter focuses on Introducing students to hybrid and battery electric vehicles. Completion of this certificate prepares students for entry level work on hybrid and EV models. It is not required but will be offered every summer, priority enrollment will be given to Automotive Technology AAS students. Students will receive an additional certificate upon completion, please include it with graduation application materials.

First Quarter

APLED	112	Applied Mathematics [1]	4
APLED	113	Introduction to Computers for Technology [1]	2
APLED	121	Applied Written Communication [1]	4
APLED	123	Leadership Skills for Business and Industry [1]	4
AUTO	100	Introduction to Automotive	4
WELD	155	Auto Welding	1
		Total	**19**

Second Quarter

AUTO	115	Theory of Electrical and Electronics	11
AUTO	116	Diagnosis of Electrical and Electronics	7
		Total	**18**

Third Quarter

AUTO	111	Theory of Brakes	6
AUTO	112	Applications of Brakes	4
AUTO	131	Theory of Suspension and Steering	5
AUTO	132	Application of Suspension and Steering	3
		Total	**18**

Fourth Quarter

AUTO	119	Theory of Heating and Air Conditioning	4
AUTO	120	Application of Heat and AC	2
AUTO	211	Theory of Engines	7
AUTO	212	Application of Engine Repair	5
		Total	**18**

Fifth Quarter

AUTO	113	Theory of Auto Transmissions/Transaxles [2]	6
AUTO	114	Application of Auto Transmissions/Transaxles [2]	4
AUTO	129	Theory of Manual Drive Train/Transmissions [2]	5
AUTO	130	Application of Manual Drive Train/Transmission [2]	3
		Total	**18**

Sixth Quarter

AUTO	117	Theory of Engine Performance	11
AUTO	118	Application of Engine Performance	7
		Total	**18**

Seventh Quarter

		Optional L3 Introduction to Hybrid and Battery Electric Vehicles Cert.	0-12
		Total	**0–12**

109-121 credits are required for the Associate in Applied Science

Optional L3 Introduction to Hybrid and Battery Electric Vehicles Cert. [3]

AUTO	215	Introduction to Hybrid & Electrified Vehicles (EV)	10
AUTO	216	Introduction to Hybrid & Electrified Vehicle (EV) Diagnosis	2

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.
2 Auto 266 and 267 may be substituted. A maximum of 18 credits of cooperative education is allowed. Students must have a 3.0 cumulative GPA.
3 AUTO 215 and 216 are optional 4th or 7th quarter courses to complete the L3 Introduction to Hybrid and Battery Electric Vehicles certificate. Students will be issued a certificate for this quarter only upon completion. Priority enrollment given to Automotive Technology AAS students.

Automotive Technology Short-Term Certificate

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 only in the first quarter. The one–year certificate

requires completion of any three quarters of the automotive technology program and the four related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

The automotive technology short–term certificate 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 must complete all courses with a 2.0 grade or better.

Courses

APLED	112	Applied Mathematics [1]	4
APLED	113	Introduction to Computers for Technology [1]	2
APLED	121	Applied Written Communication [1]	4
APLED	123	Leadership Skills for Business and Industry [1]	4
AUTO	100	Introduction to Automotive	4
WELD	155	Auto Welding	1
		Total	**19**

19 credits are required for the Certificate

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.

L3 Hybrid & Electric Vehicle
Certificate

These courses are perfect for those who are curious about electric and hybrid vehicles but aren't sure where to start. It covers a range of basic essential topics, including:

- **Fundamentals of Electrical Laws**: Refresh your understanding of Ohm's Law and Watt's Law.
- **Personal Protective Equipment (PPE)**: Learn how to use and test PPE effectively.
- **Motor and Generator Basics**: Gain a basic understanding of motors and generators, including testing procedures.
- **Power Factor**: Understand power factor and its impact on vehicle range.
- **Battery Disassembly and Testing**: Disassemble a Prius battery, perform load tests on multiple blocks, conduct power tests, and analyze the results. Learn how to configure, charge, retest, and evaluate each battery stick.
- **Transmission Disassembly**: Disassemble a transmission, describe its functions, and test the motor and generator to ensure proper operation.
- **Mathematical Equations**: Apply basic mathematical equations related to AC power.
- **EV Power Flow**. Set the parameters on an EV vehicle and visually see the power flow of the circuit from Charging the battery, to acceleration to regenerative braking.

These courses will provide you with the foundational knowledge and practical skills needed to understand and work with electric and hybrid vehicles.

Automotive Technology students must enroll in and attend the full quarter to obtain any certificate(s) for the quarter.

The certificate(s) option is offered only if space is available and priority for space is given to students seeking the two–year AAS degree.

First Quarter

AUTO	215	Introduction to Hybrid & Electrified Vehicles (EV)	10
AUTO	216	Introduction to Hybrid & Electrified Vehicle (EV) Diagnosis	2
		Total	**12**

12 credits are required for the Certificate

AUTOMOTIVE TOYOTA T-TEN: SCC

Automotive: Toyota T-TEN
Associate in Applied Science

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.

Students interested in receiving special training in Toyota T–TEN (Technician Training and 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.

First Quarter

APLED	112	Applied Mathematics [1]	4
AUTO	102	Toyota Electrical I	5
AUTO	104	Toyota Electrical II	6
AUTO	110	Introduction to Toyota	5
		Total	**20**

Second Quarter

AUTO	237	Toyota T-Port Lab I	12
		Total	**12**

Third Quarter

APLED	121	Applied Written Communication [1]	4
AUTO	123	Toyota Engine Performance I	6
AUTO	126	Toyota Engine Repair	5
AUTO	260	Toyota Engine Performance II	6
		Total	**21**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
AUTO	136	Toyota Steering & Suspension	6
AUTO	137	Toyota Brake Service & Repair	5
		Total	**14**

Fifth Quarter

AUTO	238	Toyota T-Port Lab II	12
		Total	**12**

Sixth Quarter

AUTO	261	Toyota Drivetrains	5
AUTO	263	Toyota Automatic Transmissions	5
AUTO	286	Toyota Heating and A/C	5
		Total	**15**

Seventh Quarter

AUTO	239	Toyota T-Port Lab III	12
		Optional Summer Course – High Performance Engines [2]	0-18
		Total	**12–30**

106-124 credits are required for the Associate in Applied Science

Optional Summer Course – High Performance Engines

AUTO	270	High Performance Engines [2]	18

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.

2 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.

AVIATION MAINTENANCE TECHNOLOGY: SCC

Airframe Maintenance Certificate

This certificate provides students with both theory and practical lab applications 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 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 an Airframe and/or Powerplant Certificate can be issued.

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 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.

First Quarter

ARCFT	137	Airframe Metallic Structures	5
ARCFT	138	Airframe Metallic Structures Shop	5
ARCFT	139	Airframe Non-Metallic Structures & Environment Systems	5
ARCFT	140	Airframe Non-Metallic Structures & Environment Systems Shop	5
		Total	**20**

Second Quarter

ARCFT	235	Airframe Flight Control, Rigging, and Landing Gear Systems	5
ARCFT	236	Airframe Flight Control, Rigging, and Landing Gear Systems Shop	5
ARCFT	237	Airframe Instruments, Fluid Systems, & Inspections	5
ARCFT	238	Airframe Instruments, Fluid Systems, & Inspections Shop	5
		Total	**20**

40 credits are required for the Certificate

AMT Avionics Certificate

This three–quarter AMT Avionics Certificate program will allow AMT students to increase their knowledge in aircraft electronics and electronic systems. Students will learn about digital electronics, communication systems, aircraft wiring, and fiber optic systems. Hands–on labs will be used to demonstrate the concepts taught in the classroom. These labs will focus on system installation, troubleshooting, and repair techniques with an emphasis on the safe use of tools and equipment.

First Quarter

ARCFT	119	General Electricity & Electronics [1]	5
ARCFT	120	General Electricity & Electronics Shop [1]	4
ARCFT	135	Airframe & Powerplant Electrical Systems [1]	5
ARCFT	136	Airframe & Powerplant Electrical Systems Shop [1]	5
		Total	**19**

Second Quarter

AVIO&	103	Aircraft Wiring Systems	2
AVIO&	104	Aircraft Fiber Optic Systems	2
AVIO&	201	Aircraft Digital Electronic Instrument Systems	8
		Total	**12**

Third Quarter

AVIO&	202	Avionics Systems for Airframe and Power Plant	8
AVIO&	203	Avionics Communications	2
AVIO&	204	Principles of Avionics Troubleshooting	2
		Total	**12**

43 credits are required for the Certificate

1 A current FAA Airframe and/or Powerplant license can be substituted for courses: ARCFT 119, 120, 135, & 136

Aviation Maintenance Technology Associate in Applied Science

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered in the first two quarters are integral to both the airframe and powerplant phases of the program. Students receive a well–rounded education in general aircraft mechanics in 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.

Coursework in written communication and human relations/leadership is required to satisfy the related education requirements for an AAS degree and these

courses will be by arrangement. Computation is embedded within the program to meet AAS degree requirements.

Graduates of the program are eligible to take the FAA examination for both the Airframe and Powerplant licenses.

First Quarter

ARCFT	115	Introduction to General Aircraft Maintenance	5
ARCFT	116	Introduction to General Aircraft Maintenance Shop	5
ARCFT	117	General Aircraft Maintenance	5
ARCFT	118	General Aircraft Maintenance Shop	5
		Total	**20**

Second Quarter

ARCFT	119	General Electricity & Electronics	5
ARCFT	120	General Electricity & Electronics Shop	5
ARCFT	135	Airframe & Powerplant Electrical Systems	5
ARCFT	136	Airframe & Powerplant Electrical Systems Shop	5
		Written Communication Elective (choose one) [1]	5
		Total	**25**

Third Quarter

ARCFT	137	Airframe Metallic Structures	5
ARCFT	138	Airframe Metallic Structures Shop	5
ARCFT	139	Airframe Non-Metallic Structures & Environment Systems	5
ARCFT	140	Airframe Non-Metallic Structures & Environment Systems Shop	5
		Human Relations & Leadership Electives (choose one) [1]	5
		Total	**25**

Fourth Quarter

ARCFT	235	Airframe Flight Control, Rigging, and Landing Gear Systems	5
ARCFT	236	Airframe Flight Control, Rigging, and Landing Gear Systems Shop	5
ARCFT	237	Airframe Instruments, Fluid Systems, & Inspections	5
ARCFT	238	Airframe Instruments, Fluid Systems, & Inspections Shop	5
		Total	**20**

Fifth Quarter

ARCFT	245	Airframe Reciprocating Engines	5
ARCFT	246	Airframe Reciprocating Engines Shop	5
ARCFT	247	Airframe Turbine Engines	5
ARCFT	248	Airframe Turbine Engines Shop	5
		Total	**20**

Sixth Quarter

ARCFT	255	Powerplant Combustions, Monitoring, & Exhaust Systems	5
ARCFT	256	Powerplant Combustions, Monitoring, & Exhaust Systems Shop	5
ARCFT	257	Powerplant Propellers, Airflow, & Cooling Systems	5
ARCFT	258	Powerplant Propellers, Airflow, & Cooling Systems Shop	5
		Total	**20**

130 credits are required for the Associate in Applied Science

Human Relations & Leadership Electives (choose one)

BUS	280	Human Relations in Business	5
CMST&	101	Introduction to Communication	5
CMST	127	Leadership Development	3-5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	5

Written Communication Elective (choose one)

ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5

[1] Electives can be taken at any time and should be chosen from the provided list. Any related course or combination of courses can be substituted upon approval by the instructional dean.

General Aircraft Maintenance Certificate

This certificate provides students with both theory and practical lab applications in aviation physics and aerodynamics, aircraft weight and balance, aircraft ground handling, vocational mathematics, 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 an Airframe and/or Powerplant Certificate can be issued.

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.

First Quarter

ARCFT	115	Introduction to General Aircraft Maintenance	5
ARCFT	116	Introduction to General Aircraft Maintenance Shop	5
ARCFT	117	General Aircraft Maintenance	5
ARCFT	118	General Aircraft Maintenance Shop	5
		Total	**20**

Second Quarter

ARCFT	119	General Electricity & Electronics	5
ARCFT	120	General Electricity & Electronics Shop	5
ARCFT	135	Airframe & Powerplant Electrical Systems	5
ARCFT	136	Airframe & Powerplant Electrical Systems Shop	5
		Total	**20**

40 credits are required for the Certificate

Powerplant Maintenance
Certificate

This 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 an Airframe and/or Powerplant Certificate can be issued.

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.

First Quarter

ARCFT	245	Airframe Reciprocating Engines	5
ARCFT	246	Airframe Reciprocating Engines Shop	5
ARCFT	247	Airframe Turbine Engines	5
ARCFT	248	Airframe Turbine Engines Shop	5
		Total	**20**

Second Quarter

ARCFT	255	Powerplant Combustions, Monitoring, & Exhaust Systems	5
ARCFT	256	Powerplant Combustions, Monitoring, & Exhaust Systems Shop	5
ARCFT	257	Powerplant Propellers, Airflow, & Cooling Systems	5
ARCFT	258	Powerplant Propellers, Airflow, & Cooling Systems Shop	5
		Total	**20**

40 credits are required for the Certificate

BAKING: SCC

Baking: Professional Pastries and Specialty Cakes
Certificate

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 cake decorating, including proper piping procedures, tube usage, flower creation and decoration, color mixing and design principles. In the Baking & Pastry Arts class, you will learn fine dining dessert plating, petit fours, mousse, entremets, coulis, caramel, ganache, international desserts, modern garnishing techniques, ice cream and sorbets.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

BAK	101	Introduction to Baking and Pastries	1
BAK	110	Artisan Breads and Pastries	12
HM	112	Hospitality Mathematics [1]	3
		Total	**16**

Second Quarter

BAK	120	Special Occasion Cakes	2
BAK	121	Tortes and Gateau	3
BAK	130	Sculptured Cakes	2
BAK	131	Rolled Fondant	2.5
BAK	248	Wedding Cakes	3
CUL	115	Foodservice Safety & Sanitation	3
		Total	**15.5**

Third Quarter

BAK	288	Cooperative Education Work Experience (No Seminar) [2]	7
CUL	256	Hospitality Writing	3
HM	130	Human Relations	3
		Total	**13**

Fourth Quarter

CUL	120	Kitchen Management & Purchasing	3
CUL	244	Introduction to Baking and Pastry Arts	9
		Total	**12**

56.5 credits are required for the Certificate

1 This course may be substituted with any course or combination of courses approved by the instructional dean.
2 BAK 288 may be substituted with BAK 266 and 267 for 7 credits.

BIOMEDICAL EQUIPMENT TECHNICIAN: SCC

Biomedical Equipment Technician
Associate in Applied Science

This program is designed to prepare students for employment in the specialized field of biomedical electronics In a hospital or other healthcare technology settings.

The curriculum has been planned to give comprehensive training in medical equipment, circuit analysis, laboratory techniques, and the use of modern test equipment. A balanced study of peripheral subjects that make the biomedical equipment technician unique is included. These subjects include fundamentals of chemistry, physiology, medical terminology, hospital ethics, and hospital safety. The curriculum provides lectures and laboratories in repair and preventative maintenance of medical electronic equipment throughout the course. Graduates are prepared for employment as entry level biomedical equipment technicians.

To qualify for an associate in applied science degree students must successful complete seven quarters of study including required courses in chemistry, employment preparation, and an internship in the seventh quarter. The clinical practicum is available during summer quarter only. Students may enroll in the program during fall, winter, or spring quarters.

The goal of the program Is to provide the health care field with biomedical 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. There are a limited number of clinical sites available in the Spokane area so students must be willing to travel to available clinical sites.

Successful completion will be determined by meeting the following criteria:

- A student must pass each required class with a minimum grade of 2.0
- A student must achieve an overall grade point average of 2.75 to be considered for clinical rotation.

Note: upon review, the department chair and/or Technical Education Division Dean may waive any or all previous criteria when extenuating circumstances arise.

First Quarter

BIOEQ	141	Digital Electronics	5
BIOEQ	142	Digital Electronics Lab [2]	3
BIOEQ	143	Biomedical Regulations & Standards	5
CHEM&	121	Intro to Chemistry: w/Lab	5
		Total	**18**

Second Quarter

BIOEQ	242	Human Body Structure & Function [2]	5
BIOEQ	243	Life-Saving Equipment	3
BIOEQ	244	Electronic Devices	4
BIOEQ	245	Electronic Devices Lab [2]	2
		Total	**14**

Third Quarter

APLED	125	Employment Preparation [1]	3
BIOEQ	231	Bloodborne Pathogens & HIPPA	3
BIOEQ	232	Introduction to Networking	4
BIOEQ	233	Electronic Components	4
BIOEQ	234	Electronic Components Lab [2]	3
		Total	**17**

Fourth Quarter

BIOEQ	121	Vital Signs Monitoring Equipment	3
BIOEQ	122	Imaging Systems	2
BIOEQ	123	Medical Equipment Research [1]	2
BIOEQ	133	Computer Fundamentals	4
BIOEQ	134	Computer Fundamentals Lab [2]	3
		Total	**14**

Fifth Quarter

BIOEQ	110	Biomedical DC Theory	4
BIOEQ	111	Biomedical DC Lab [2]	3
BIOEQ	112	Biomedical DC Math [3]	2
BIOEQ	113	Biomedical Soldering	2
BIOEQ	199	Medical Terminology for Biomedical Equipment Technology	3
		Total	**14**

Sixth Quarter

BIOEQ	211	Biomedical AC Theory	4
BIOEQ	212	Biomedical AC Lab [2]	3
BIOEQ	213	Biomedical AC Math [3]	2
BIOEQ	220	Biomedical Project Management	1
BIOEQ	221	Specialized Testing Equipment [2]	3
		Total	**13**

Seventh Quarter

BIOEQ	271	Biomedical Equipment Technology Clinical Rotation [2]	8
BIOEQ	272	Biomedical Seminar [2]	4
		Total	**12**

102 credits are required for the Associate in Applied Science

1 APLED 125 and one credit of embedded Humanities instruction (globalization of medical equipment in BIOEQ 123) satisfy Humanities requirements.
2 All labs have embedded writing and communication instruction to satisfy WA state communications requirements.
3 Satisfies WA state quantitative/computational requirements.

BUSINESS: SCC

Business
Associate in Applied Science

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 marketing, management, project management or entrepreneurship; or select courses that provide a general exposure to several areas of business.

The AAS In Business curriculum serves the student by offering modalities for most every course within the degree path for student convenience.

All students graduating from this program must have a minimum grade of 2.0 on each of the Management (MMGT), Accounting (ACCT), Economics (ECON), and Business (BUS) required courses. Students must also have a minimum 2.0 cumulative grade point average on all required courses in the program. This policy is true for students earning the Hospitality, Tourism, and Event Management Certificate who plan on adding the Business AAS. Please reach out to a counselor or your program faculty for more information.

First Quarter

BT	152	College and Career Strategies	3
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
		Total	**15.5**

Second Quarter

BUS&	101	Intro to Business	5
BUS	104	Business Mathematics [1]	5
ENGL&	101	English Composition I [2]	5
		Total	**15**

Third Quarter

CATT	138	Microsoft Excel I	2.5
MIS	211	Information Technology In Business	5
MMGT	101	Principles of Management	5
		Total	**12.5**

Fourth Quarter

MMGT	211	Marketing	5
		Group A, B, or C Elective	8
		Group C – Business Related Elective	5
		Total	**18**

Fifth Quarter

ACCT	151	College Accounting I [3]	5
ECON	100	Fundamentals of Economics [4]	5
		Group B – Quantitative Analysis Elective	5
		Total	**15**

Sixth Quarter

MMGT	100	Supervised Volunteer Experience [5]	1
		Group A – Marketing & Management Elective	15
		Total	**16**

92 credits are required for the Associate in Applied Science

Group A – Marketing & Management Elective

BT	204	Spreadsheet Design and Analysis	5
BUS	140	International Marketing	3
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	206	Entrepreneurship and Business Plan Writing [6]	10
BUS	284	Special Business Topics	1-5
BUS	285	Special Business Topics	1-5
BUS	286	Special Business Topics	1-5
CATT	241	Microsoft Project	2.5
CMST&	101	Introduction to Communication	5
HM	202	Front Office Procedures	5
HM	205	Hotel/Restaurant Law	5
HM	206	Revenue Management	3
HM	220	Tourism and the Hospitality Industry	3
HM	221	Event Management	5
MMGT	125	Social Media Marketing	5
MMGT	205	Small Business Planning	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	225	Content, Social and Digital Marketing	5
MMGT	230	Market Research & Consumer Behavior	5
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management	5
MMGT	244	Introduction to Lean Six Sigma	2.5
MMGT	250	Professional Sales	5
MMGT	256	Lean Leadership	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1-5

Group B – Quantitative Analysis Elective

ACCT	141	QuickBooks Online	5
ACCT	142	QuickBooks Desktop	5
ACCT	152	College Accounting II [7]	5
ACCT	161	Payroll Procedures	5
ACCT	162	Business Tax Accounting	2
ACCT&	201	Principles of Accounting I	5
ACCT&	202	Principles of Accounting II	5
ACCT&	203	Principles of Accounting III	5
ACCT	204	Accounting Integration	5
ACCT	212	Accounting Applications and Analysis [8]	5
BUS	217	Business Statistics [9]	5
ECON&	201	Micro Economics	5
ECON&	202	Macro Economics	5

Group C – Business Related Elective

BT	274	Business Writing for the Web	5
BUS	100	Money Management	3
CATT	102	Microsoft Outlook	2.5
CATT	121	Microsoft Word II	2.5
CATT	128	Desktop Publishing	2.5
CATT	139	Microsoft Excel II	2.5
CATT	190	Microsoft PowerPoint I	2.5
CIS	110	Introduction to Computer Applications	5
CIS	112	Web Graphics with Photoshop	3
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	280	Public Relations and Social Media	5
CMST	287	Communication in Organizations	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5
MMGT	181	Leadership Training-DEC	1
MMGT	182	Leadership Training-DEC	1
MMGT	183	Leadership Training-DEC	1
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
SPAN&	121	Spanish I	5

1 BUS 103 or placement test required

2 May be substituted with BT 272.

3 ACCT 151 may be substituted with ACCT& 201.

4 May be substituted with a higher level ECON course.

5 May be substituted with MMGT 288 COOP. Ed Work Experience giving students the option of using volunteer or internship work experience.

6 Requires successful completion of MMGT 205 Small Business Planning or instructor permission.

7 Prerequisite of ACCT 151. May substitute with ACCT& 202.

8 Requires successful completion of ACCT 152 or ACCT& 202.

9 Prerequisite MATH 88 with a 2.0 or better, appropriate placement score, or completion of higher level MATH course with a 2.0 or better.

Business Hospitality
Associate in Applied Science

Note to all prospective students who wish to enroll in this option for the Business AAS degree need to meet with counseling for proper advising to ensure all the courses are taken in the proper order with a minimum 2.0 GPA in all Business (BUS), Accounting (ACCT), Management (MMGT), Economics (ECON), and Management Information Systems (MIS) to graduate in two years. Please reach out to the program faculty, staff, or counseling liaisons on the Contact Us page.

Eastern Washington has an increasing number of visitors and conventions, join this fun, exciting, and growing industry. If you work in the hospitality field, use this certificate to advance your career. The Hospitality, Tourism, and Event Management certificate looks at the scope of business operations; in the area of tourism, social media, and destination marketing are crucial to creating a successful visitor experience, and event planning studies a range of functions from social gatherings, conferences, special events and festivals.

The Hospitality, Tourism, and Event Management certificate includes Business AAS courses that allow students an opportunity to apply their classes towards an Associate of Applied Science Degree in Business Administration at SCC.

First Quarter

BT	152	College and Career Strategies	3
BUS&	101	Intro to Business [1]	5
CATT	120	Microsoft Word I	2.5
HM	202	Front Office Procedures	5
		Total	**15.5**

Second Quarter

BT	274	Business Writing for the Web	5
BUS	103	Basic Business Math and Electronic Calculators [1]	5
HM	205	Hotel/Restaurant Law	5
		Total	**15**

Third Quarter

CATT	138	Microsoft Excel I	2.5
CMST	227	Intercultural Communication	5
HM	221	Event Management	5
MMGT	125	Social Media Marketing [1]	5
		Total	**17.5**

Fourth Quarter

BUS	280	Human Relations in Business [1]	5
HM	206	Revenue Management	3
HM	220	Tourism and the Hospitality Industry	3
MMGT	231	Human Resource Management [1]	5
		Total	**16**

Fifth Quarter

ACCT	151	College Accounting I [1]	5
BUS	104	Business Mathematics [1]	5
MMGT	101	Principles of Management [1]	5
		Total	**15**

Sixth Quarter

ECON	100	Fundamentals of Economics [1]	5
MIS	211	Information Technology In Business [1]	5
MMGT	100	Supervised Volunteer Experience [1]	1
MMGT	211	Marketing [1]	5
		Total	**16**

95 credits are required for the Associate in Applied Science

1 Students must have a cumulative 2.0 in this course to be eligible for the Business AAS degree.

BUSINESS MANAGEMENT: SFCC

Business Management
Associate in Applied Science

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. The Business Management program at SFCC is designed to teach the basic principles of business management in order to prepare students to potentially become middle managers and junior executives.

Courses in the program include management, marketing, leadership, social media marketing, basic finance and analysis of financial documents, business law, and human relations. Students are required to complete an additional 17 credits in areas of emphasis. Select courses from the area of emphasis list that best meet your needs.

Courses

A. Program Courses (all required)		60
B. Area of Emphasis Elective (choose 15 credits)		15
C. Communication Elective (choose 5 credits)		5
D. Computation Elective (choose 5 credits)		5
E. Human Relations Leadership Elective (choose 5 credits)		5
Total		**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

ACCT	170	Introduction to Financial Accounting	5
BT	106	Computing Essentials [1]	5
BUS&	101	Intro to Business	5
BUS	105	Leadership	5
BUS	119	Basic Finance	5
BUS	123	Practical Business Math Applications [2]	5
BUS&	201	Business Law	5
ECON	100	Fundamentals of Economics [3]	5
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
MMGT	211	Marketing	5
MMGT	231	Human Resource Management	5

B. Area of Emphasis Elective (choose 15 credits) [4]

ACCT	140	QuickBooks	5
CMST	121	Job Communication Skills	5
MIS	211	Information Technology In Business	5
MMGT	106	How to Start a Small Business	5
MMGT	126	Search Engine Marketing	5
MMGT	128	Social Media Marketing Campaign	5
MMGT	267	Cooperative Education Work Experience	5

C. Communication Elective (choose 5 credits)

BT	107	Business Communications	5
ENGL&	101	English Composition I	5

D. Computation Elective (choose 5 credits) [5]

BUS	129	Intermediate Business Math	5
BUS	217	Business Statistics	5

E. Human Relations Leadership Elective (choose 5 credits)

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
PHIL	110	Intro to Ethics	5

1 Any BT courses may be completed instead of BT 106. Please see the instructor.
2 Students may take BUS 122, then BUS 118 (5 total credits) instead of BUS 123. See advisor for assistance.
3 ECON&201 or ECON&202 (Microeconomics or Macroeconomics) may be completed instead of ECON 100.
4 Complete 15 credits from the Area of Emphasis list. Area of Emphasis elective may include any BT, CAPPS, or other electives from this program. See your advisor for assistance making the best choices for career goals.
5 Additional options for the computation elective are to complete BUS 124 (2 cr) and BUS 125 (3 cr) instead of BUS 129; or to complete ACCT& 201 Principles of Accounting, MATH 201 Intro to Finite Math, or MATH& 146 Intro to Statistics.

Business Management
Certificate

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. The Business Management program at SFCC is designed to teach the basic principles of business management in order to prepare students to potentially become middle managers and junior executives.

Courses in the program include management, marketing, professional sales, principles of leadership, social media marketing, and human relations.

The Business Management certificate serves as an introduction to business management. The certificate can also serve as preparation for furthering one's education in the business management field. The curriculum spans a variety of business topics that can also be applied towards the two–year AAS degree in Business Management. All of the courses will help aid students in acquiring a better understanding of small business management.

Courses

A. Program Courses (all required)	30
B. Communication Elective (choose 5 credits)	5
C. Computation Elective (choose 5 credits)	5
D. Human Relations Leadership Elective (choose 5 credits)	5
Total	**45**

45 credits are required for the Certificate

A. Program Courses (all required)

BT	106	Computing Essentials	5
BUS&	101	Intro to Business	5
BUS	119	Basic Finance	5
BUS	123	Practical Business Math Applications [1]	5
MMGT	101	Principles of Management	5
MMGT	211	Marketing	5

B. Communication Elective (choose 5 credits)

BT	107	Business Communications	5
ENGL&	101	English Composition I	5

C. Computation Elective (choose 5 credits) [2]

BUS	129	Intermediate Business Math	5
BUS	217	Business Statistics	5

D. Human Relations Leadership Elective (choose 5 credits)

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
PHIL	110	Intro to Ethics	5

1 Students may take BUS 122, then BUS 118 (5 total credits) instead of BUS 123. See advisor for assistance.

2 Additional options for the computation elective are to complete BUS 124 (2 cr) and BUS 125 (3 cr) instead of BUS 129; or to complete ACCT& 201 Principles of Accounting, MATH 201 Intro to Finite Math, or MATH& 146 Intro to Statistics.

BUSINESS OCCUPATIONS: SCC

Business Occupations
Certificate

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, management, 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.

First Quarter

BT	152	College and Career Strategies	3
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
		Total	**15.5**

Second Quarter

ACCT	151	College Accounting I [1]	5
CATT	138	Microsoft Excel I	2.5
ENGL&	101	English Composition I [3]	5
MMGT	223	Customer Service	3
		Total	**15.5**

Third Quarter

BUS&	101	Intro to Business	5
ECON	100	Fundamentals of Economics [2]	5
MMGT	101	Principles of Management	5
		Total	**15**

46 credits are required for the Certificate

1 ACCT 151 may be substituted with ACCT& 201.

2 ECON 100 may be substituted with a higher level ECON course.

3 ENGL& 101 may be substituted with BT 272, 274.

BUSINESS SOFTWARE SPECIALIST: SCC

Business Software Specialist
Associate in Applied Science

The Business Software Specialist degree is a two–year program with classes offered online or on–campus. This program combines training in information processing systems and office administration to give students the diversified training and background needed to hold positions of responsibility in business offices. Upon completion students will be prepared for administrative positions that require advanced spreadsheet, database, presentation, and project management software. This program provides students with one or more of the following additional areas: basic computer hardware troubleshooting, online collaboration, MOS certification, or basic network administration.

In order to earn a Business Software Specialist AAS degree, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	165	Word Processing	5
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
		Total	**14**

Third Quarter

BT	204	Spreadsheet Design and Analysis	5
BT	274	Business Writing for the Web [1]	5
CATT	190	Microsoft PowerPoint I	2.5
MMGT	223	Customer Service	3
		Total	**15.5**

Fourth Quarter

BT	280	Project Management for the Office [2]	2.5
CATT	128	Desktop Publishing	2.5
CATT	191	Microsoft PowerPoint II	2.5
CATT	241	Microsoft Project	2.5
		CIS Approved Elective	5
		Total	**15**

Fifth Quarter

BT	251	Current Trends in Technology	5
CATT	122	Microsoft Access I	2.5
CATT	123	Microsoft Access II	2.5
		CMST Approved Elective	5
		Total	**15**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	285	Administrative Professional Internship	2
		Elective [3]	5
		CIS Approved Elective	5
		Total	**15**

90 credits are required for the Associate in Applied Science

Elective

ACCT	141	QuickBooks	5
ACCT	142	Advanced QuickBooks	5
ACCT	151	College Accounting I	5
ACCT&	201	Principles of Accounting I	5
BT	272	Business Correspondence	5
BT	273	Business Research and Report Writing	5
BUS	280	Human Relations in Business	5
MIS	211	Information Technology In Business	5
MMGT	243	Fundamentals of Project Management	5
MMGT	244	Introduction to Lean Six Sigma	2.5
MMGT	256	Lean Leadership	5

CIS Approved Elective

CIS	103	Mobile Devices	5
CIS	111	HTML5/CSS3	5
CIS	112	Web Graphics with Photoshop	3
CIS	130	Responsive Web Design	5
CIS	146	Introduction to Programming	5
CIS	201	IT Essentials – A+	5
CIS	234	Network Scripting	3

CMST Approved Elective

CMST	127	Leadership Development	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	250	Managing Conflict Through Communication	5
CMST	287	Business and Professional Communication	5

1 May be substituted with BT 272.

2 May be substituted with MMGT 243.

3 Choose from any of the below elective groups.

BUSINESS WRITING: SCC

Effective Business Writing Certificate

Students who earn this certificate will build on essential writing skills, including the ability to make appropriate choices in style, grammar, and mechanics. Courses included in this certificate will build the skills necessary to create effective messages with clearly defined purposes for target audiences both on and off–line, utilizing writing styles and communication strategies appropriate for various channels and modes of communication. Toward that end, students will learn to perform research when appropriate to support clearly defined business purposes and to understand and implement both textual and non–textual styles of communication. Students who are awarded this certificate will earn at least a 3.0 grade in all courses.

First Quarter

BT	272	Business Correspondence	5
BT	274	Business Writing for the Web	5
		Total	**10**

Second Quarter

BT	273	Business Research and Report Writing	5
		Total	**5**

15 credits are required for the Certificate

CLOUD COMPUTING: SCC

Cloud Computing
Associate in Applied Science

The Cloud Computing program trains students to deploy secure computing services, including servers, storage, databases, networking, software, analytics, and intelligence, over the Internet (“the cloud”) to provide flexible and scalable IT resources. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Goals
The Cloud Computing program prepares students to use cloud computing resources to provide easy, scalable access to computing resources and IT services.

First Quarter

CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	201	IT Essentials – A+	5
CIS	210	Introduction to Cloud Platforms	5
		Total	**15**

Second Quarter

CIS	134	Virtualization Technologies	3
CIS	244	Windows Server Installation and Configuration	5
CIS	246	AWS Cloud Practitioner	2
ENGL&	101	English Composition I [2]	5
		Total	**15**

Third Quarter

CIS	206	Introduction to Linux/Unix	5
CIS	236	Windows Server Administration	5
CIS	250	Cisco I Introduction to Networks	5
		Total	**15**

Fourth Quarter

CIS	207	AWS Solutions Architect I	5
CIS	213	Advanced Linux/Unix	5
CIS	263	Advanced Windows Server	5
		Total	**15**

Fifth Quarter

CIS	208	AWS Solutions Architect II	5
CIS	270	Principles of Network Security	5
CIS	277	Database Administration	5
		Total	**15**

Sixth Quarter

CIS	200	Cisco DevNet	5
CIS	203	AWS SysOps Administrator	5
		Communications Elective [1]	5
		Total	**15**

90 credits are required for the Associate in Applied Science

Communications Elective

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST&	230	Small Group Communication	5
CMST	250	Managing Conflict Through Communication	5
ENGL&	235	Technical Writing	5

1 Select from the communication elective group

2 ENGL& 101 can be substituted with BT 105 or BT 274

COMPUTER NETWORK DESIGN AND ADMINISTRATION: SCC

Cisco Networking Certificate

The Cisco certificate verifies students have completed the Cisco Networking Academy preparation courses which map to the current Industry recognized CCNA Certification Exam.

Students cover a wide range of networking topics including IP routing, switching, and wireless fundamentals, network security and services, and network programmability and automation. Students practice configuration and troubleshooting skills with hands–on labs using Cisco equipment and simulation software. Students completing Cisco IV may be eligible for a substantial discount on the CCNA Certification exam. 20 credits are required for the certificate.

First Quarter

CIS	250	Cisco I Introduction to Networks	5
		Total	**5**

Second Quarter

CIS	251	Cisco II Switching, Routing, & Wireless I	5
		Total	**5**

Third Quarter

CIS	252	Cisco III Switching, Routing, & Wireless II	5
		Total	**5**

Fourth Quarter

CIS	253	Cisco IV Enterprise Networking Security and Automation	5
		Total	**5**

20 credits are required for the Certificate

Computer Network Design and Administration Certificate

The Computer 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:

- CIS 110 or permission of Department Chair

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.

First Quarter

CIS	103	Mobile Devices	2
CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	134	Virtualization Technologies	3
CIS	201	IT Essentials – A+	5
		Total	**15**

Second Quarter

BT	127	Human Relations and Professional Development [1]	3
BT	160	Job Preparation Techniques [2]	3
CIS	244	Windows Server Installation and Configuration	5
CIS	270	Principles of Network Security	5
		Total	**16**

Third Quarter

CIS	206	Introduction to Linux/Unix	5

CIS	236	Windows Server Administration	5
CIS	250	Cisco I Introduction to Networks	5
		Total	**15**

46 credits are required for the Certificate

Communication Elective

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST&	230	Small Group Communication	5
CMST	250	Managing Conflict Through Communication	5
ENGL&	235	Technical Writing	5

1 BT 127 can be substituted with an elective from the communication electives group.
2 BT 160 can be substituted with ENGL& 101, BT 105, or BT 274.

Computer Network Design and Administration Associate in Applied Science

The Computer 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 Linux/UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

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.

First Quarter

CIS	103	Mobile Devices	2
CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	201	IT Essentials – A+	5
		Total	**12**

Second Quarter

CIS	206	Introduction to Linux/Unix	5
CIS	250	Cisco I Introduction to Networks	5
ENGL&	101	English Composition I [2]	5
		Total	**15**

Third Quarter

CIS	134	Virtualization Technologies	3
CIS	213	Advanced Linux/Unix	5
CIS	244	Windows Server Installation and Configuration	5
CIS	251	Cisco II Switching, Routing, & Wireless I	5
		Total	**18**

Fourth Quarter

CIS	236	Windows Server Administration	5
CIS	252	Cisco III Switching, Routing, & Wireless II	5
CIS	270	Principles of Network Security	5
		Total	**15**

Fifth Quarter

CIS	246	AWS Cloud Practitioner	2
CIS	253	Cisco IV Enterprise Networking Security and Automation	5
CIS	263	Advanced Windows Server	5
CIS	286	Cisco Emerging Technologies	3
		Total	**15**

Sixth Quarter

CIS	275	Networking Capstone	5
CIS	277	Database Administration	5
		Communication Elective [1]	5
		Total	**15**

90 credits are required for the Associate in Applied Science

Communication Elective

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST&	230	Small Group Communication	5
CMST	250	Managing Conflict Through Communication	5
ENGL&	235	Technical Writing	5

1 Select from the communication elective group.
2 ENGL& 101 can be substituted with BT 105 or BT 274.

Linux/Unix Networking Certificate

The Linux/Unix certificate prepares students for the latest CompTIA Linux+ and the LPIC–1 certification exams. This will be an interactive, hands–on course. Students will have access to their own dedicated Linux system on which to learn and explore. Successful completion of the certificate provides students with the essential skills needed for Linux systems administration including filesystem administration, working with the BASH shell, system initialization, process management, managing programs and packages, server deployment, and Network Configuration.

First Quarter

CIS	206	Introduction to Linux/Unix	5
		Total	**5**

Second Quarter

CIS	213	Advanced Linux/Unix	5
		Total	**5**

10 credits are required for the Certificate

Microsoft Networking Certificate

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:

- CIS 110 or permission of Department Chair

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.

First Quarter

CIS	236	Windows Server Administration	5
CIS	244	Windows Server Installation and Configuration	5
CIS	263	Advanced Windows Server	5
CIS	277	Database Administration	5
		Total	**20**

20 credits are required for the Certificate

COSMETOLOGY: SCC

Cosmetology
Associate in Applied Science

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 Examination of Cosmetology. After passing this exam, they will be qualified to receive a license for Cosmetology.
This program includes hair cutting, trimming of facial hair, hair styling, permanent waving, chemical relaxing, tinting and bleaching, and temporary superfluous hair removal; artificial hair; manicuring and pedicuring of natural nails; basic skincare and theory of diseases and disorders of the scalp, skin, hair, and nails; and anatomy as it relates to cosmetology. 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 2.0 in all professional classes to complete the program and pass exit exams with a minimum score of 2.0 to be prepared to take the Washington State Examination of Cosmetology; students must earn a 2.0 in all other classes.
- 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

First Quarter

COS	101	Skin and Nail Concepts	6
COS	102	Skin and Nail Applications	10
		Total	**16**

Second Quarter

COS	111	Cosmetology Foundation Concepts	6
COS	112	Cosmetology Foundation Applications	10
		Total	**16**

Third Quarter

COS	121	Intermediate Cosmetology Concepts I	6
COS	122	Intermediate Cosmetology Applications I	10
		Total	**16**

Fourth Quarter

COS	131	Intermediate Cosmetology Concepts II	6
COS	132	Intermediate Cosmetology Applications II	10
		Total	**16**

Fifth Quarter

COS	241	Advanced Cosmetology Concepts I	6
COS	242	Advanced Cosmetology Applications I	10
		Total	**16**

Sixth Quarter

COS	251	Advanced Cosmetology Concepts II	6
COS	252	Advanced Cosmetology Applications I	10
		Total	**16**

96 credits are required for the Associate in Applied Science

CULINARY: SCC

Culinary Arts
Associate in Applied Science

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).

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

CUL	110	Introduction to Professional Cooking	9
CUL	112	Introduction to Foodservice	3
HM	112	Hospitality Mathematics	3
		Total	**15**

Second Quarter

CUL	120	Kitchen Management & Purchasing	3
CUL	124	Culinary Skills Development [1]	9
CUL	126	Food Science	3
		Total	**15**

Third Quarter

CUL	132	Advanced Culinary Techniques	9

HM	116	Nutrition for Chefs and Restaurant Managers	3
HM	130	Human Relations	3
		Total	**15**

Fourth Quarter

CUL	115	Foodservice Safety & Sanitation [2]	3
CUL	244	Introduction to Baking and Pastry Arts	9
CUL	265	Hospitality Accounting & Cost Controls	3
		Total	**15**

Fifth Quarter

CUL	131	Restaurant Management	9
CUL	256	Hospitality Writing	3
CUL	257	Beverage Management	3
		Total	**15**

Sixth Quarter

CUL	255	Hospitality Marketing & Menu Planning	3
CUL	261	Foodservice Operations Management	9
CUL	262	Advanced Food Service Management	3
		Total	**15**

90 credits are required for the Associate in Applied Science

1 This course may be substituted with any course or combination of courses approved by the instructional dean.
2 This course is required for certification by the Educational Foundation of the National Restaurant Association.

CUSTOMER SERVICE REPRESENTATIVE: SCC

Customer Service Representative
Associate in Applied Science

The Customer Service degree is a two–year professional program. The Customer Service Representative program provides the business background and human relations skills needed to work successfully with clients and customers. Students may participate in online or on–ground classes.

This degree prepares students for jobs as customer service representatives. An associate degree in customer service introduces students to techniques used to deliver quality customer service care. Students develop their communication, marketing, personnel supervision, and customer relations skills. Subjects taught during a customer service training program are a combination of business and customer service specific courses.

These individuals are the face of the company and are the ones who deal with customers in a friendly and courteous manner. Customer service professionals are required to interact with customers before, during, and after the sale has been made as well. Customer service training program graduates will also have a better chance of reaching the supervisory or management levels in this field.

In order to earn a Customer Service Representative AAS degree, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BT	272	Business Correspondence [1]	5
CATT	122	Microsoft Access I	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

Third Quarter

BUS	103	Basic Business Math and Electronic Calculators	5
CATT	120	Microsoft Word I [2]	2.5
CATT	121	Microsoft Word II [2]	2.5
CATT	190	Microsoft PowerPoint I	2.5
CATT	191	Microsoft PowerPoint II	2.5
		Total	**15**

Fourth Quarter

ACCT	151	College Accounting I [4]	5
BT	231	Office Procedures	5
CATT	138	Microsoft Excel I [3]	2.5
CATT	139	Microsoft Excel II [3]	2.5
		Total	**15**

Fifth Quarter

BUS&	101	Intro to Business	5
BUS	280	Human Relations in Business [5]	5
		Electives	5
		Total	**15**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	285	Administrative Professional Internship	2
CMST	250	Managing Conflict Through Communication [6]	5
		Electives	5
		Total	**15**

90 credits are required for the Associate in Applied Science

Electives

ACCT	141	QuickBooks	5
ACCT	142	Advanced QuickBooks	5
BT	251	Current Trends in Technology	5
BT	260	Administrative Office Management	5
BT	273	Business Research and Report Writing	5
BT	274	Business Writing for the Web	5
CATT	128	Desktop Publishing	2.5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
CATT	241	Microsoft Project	2.5
CMST	127	Leadership Development	3-5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	3-5
ECON	100	Fundamentals of Economics	5
HM	221	Event Management	5
MMGT	125	Social Media Marketing	5
MMGT	211	Marketing	5
MMGT	212	Retailing	5
MMGT	250	Professional Sales	5

[1] BT 272 may be substituted with BT 274.

[2] CATT 120 and CATT 121 may be substituted with BT 165.

[3] CATT 138 and CATT 139 may be substituted with BT 204.

[4] ACCT 151 may be substituted with ACCT& 201.

[5] BUS 280 may be substituted with BT 260.

[6] May be substituted with any CMST course.

CYBERSECURITY: SFCC

Cybersecurity
Bachelor of Applied Science

The BAS Cyber builds on technical skills that entering students bring from their associate degrees, adding theoretical knowledge, general education, and advanced technical skills. Within the four years of an applied baccalaureate degree, general education credits must include a minimum of:

- Ten (10) credits of communication skills, including one English composition course, e.g. ENGL& 101;
- Five (5) credits of quantitative/symbolic reasoning skills;
- Ten (10) credits of humanities;
- Ten (10) credits of social sciences;
- Ten (10) credits of natural science, including at least five (5) credits in physical, biological and/or earth sciences, including at least one course with a lab.
- 15 credits of remaining general education courses to achieve the required 60 credits.

Typically, at least 15 general education credits are satisfied at the associate degree level as confirmed by entrance pre–requisites, and the remaining 45 credits are satisfied with courses in quantitative skills, humanities, social sciences and natural sciences.

Students must first complete an AA or AAS degree in order to be admitted to a BAS program.

Courses

_AA or AAS Degree	90
A. Program Courses (all required)	40
B. Computation/Math Elective (choose 5 credits)	5
C. General Education / Program Support (35 credits required)	35
D. Additional General Education Courses (choose 5 credits)	5
E. Science Course (choose 5 credits)	5
Total	**180**

180 credits are required for the Bachelor of Applied Science

A. Program Courses (all required)

CYBR	320	Ethical Hacking	5
CYBR	330	Endpoint Security	5
CYBR	350	Risk Management	5
CYBR	410	Encryption	5
CYBR	430	Cyber Security Policies and Framework	5
CYBR	440	Security and Compliance	5
CYBR	470	Identity Management	5
CYBR	475	Capstone Internship	5

B. Computation/Math Elective (choose 5 credits)

MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
MATH	300	Mathematical Modeling for Applied Science	5

C. General Education / Program Support (35 credits required)

BMGT	342	Project Management	5
CMST	227	Intercultural Communication	5
CMST	320	Professional Communication	5
CMST	430	Organizational Communication	5
ECON&	202	Macro Economics	5
PHIL	330	Professional Ethics	5
PSYC	333	Motivation	5

[1] The BAS degree requires ten (10) credits of natural science, including at least five (5) credits in physical, biological and/or earth sciences, including at least one course with a lab.

DENTAL ASSISTING: SCC

Dental Assisting
Certificate

Dental Assisting is a nine–month Allied Health profession specifically concerned with preparing the student for employment as a chairside dental assistant to the dentist and other auxiliaries. In addition to the certificate, an additional year is available for the AAS degree.

The primary role of the dental assistant includes several modalities which include:

Chairside area: review and record medical and dental histories and any other data required; prepare treatment rooms and patients for treatment; chart and document patients information; assist the dentist and other auxiliaries in general and specialty treatment of patients; Instruct patients in oral hygiene techniques and various dental procedures; prepare various dental materials; sterilize and disinfect dental instruments and equipment. Perform a variety of expanded functions that are legal in the state of Washington. (see Department of Health WAC 246–817–520); Expose, process, and mount various types of traditional and digital radiographs becoming proficient in the various types of equipment which require a highly–skilled operator to obtain the imaging information and other data required.

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; order and maintain dental supplies and equipment.

This program is accredited by the American Dental Association (http://www.ada.org/en/coda/accreditation) American Dental Association Commission on Dental Accreditation 211 East Chicago Avenue Chicago, Illinois 60611 Phone (800) 621.8099 or (312) 440.4653.

Students who successfully complete the program are eligible to take the Dental Assisting National Board exam immediately following graduation. Students in this program are required to complete three separate clinical internships.

First Quarter

DENT	109	Chairside Related Theory Lab	1
DENT	110	Introduction to Dental Assisting Lab	2
DENT	111	Introduction to Dental Assisting	3
DENT	112	Chairside Related Theory	3

DENT	114	Introduction to Dental Radiology	2
DENT	115	Introduction to Dental Radiology Lab	1
DENT	116	Dental Restorative Techniques	2
DENT	117	Dental Restorative Techniques Lab	1
DENT	118	Dental Anatomy	4
ENGL&	101	English Composition I	5
		Total	**24**

Second Quarter

CMST&	210	Interpersonal Communication	5
DENT	120	Intermediate Chairside Assisting Lab	1
DENT	121	Intermediate Chairside Assisting	5
DENT	122	Chairside Related Theory	4
DENT	124	Advanced Dental Radiology	1
DENT	125	Advanced Dental Radiology Lab	1
DENT	126	Dental Restorative Techniques	2
DENT	127	Dental Restorative Techniques Lab	2
DENT	129	Chairside Clinical Experience	2
		Total	**23**

Third Quarter

DENT	131	Advanced Chairside Assisting	4
DENT	132	Advanced Chairside Assisting Lab	2
DENT	136	Dental Restorative Techniques	1
DENT	137	Dental Restorative Techniques Lab	1
DENT	138	Office Management	4
DENT	139	Chairside Clinical Experience	8
		Total	**20**

67 credits are required for the Certificate

Dental Assisting
Associate in Applied Science

Dental Assisting is a one year Allied Health profession specifically concerned with preparing the student for employment as a chairside dental assistant to the dentist and other auxiliaries. In addition to the certificate an additional year is available for the AAS degree.

The primary role of the dental assistant includes several modalities which include:

Chairside area: review and record medical and dental histories and any other data required; prepare treatment rooms and patients for treatment; chart and document patients information; assist the dentist and other auxiliaries in general and specialty treatment of patients; Instruct patients in oral hygiene techniques and various dental procedures; prepare various dental materials; sterilize and disinfect dental instruments and equipment. Perform a variety expanded functions that are legal in the state of Washington. (see Department of Health WAC 246–817–520); Expose, process and mount various types of traditional and digital radiographs becoming proficient in the various types of equipment which require a highly skilled operator to obtain the imaging information and other data required.

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; order and maintain dental supplies and equipment.

This program is accredited by the American Dental Association (http://www.ada.org/en/coda/accreditation) American Dental Association Commission on Dental Accreditation 211 East Chicago Avenue Chicago, Illinois 60611 Phone (800) 621.8099 or (312) 440.4653.

Students who successfully complete the program are eligible to take the Dental Assisting National Board exam immediately following graduation. Students in this program are required to complete three separate clinical internships.

First Quarter

BIOL&	160	General Biology w/Lab	5
CMST&	101	Introduction to Communication	5
PSYC&	100	General Psychology	5
		Total	**15**

Second Quarter

CHEM&	110	Chemical Concepts w/Lab [1]	5
		Communication or Humanities Electives	10
		Total	**15**

Third Quarter

SOC&	101	Intro to Sociology	5
		Math/Science Elective	5
		Social Science Elective	5
		Total	**15**

Fourth Quarter

DENT	109	Chairside Related Theory Lab	1
DENT	110	Introduction to Dental Assisting Lab	2
DENT	111	Introduction to Dental Assisting	3
DENT	112	Chairside Related Theory	3
DENT	114	Introduction to Dental Radiology	2
DENT	115	Introduction to Dental Radiology Lab	1
DENT	116	Dental Restorative Techniques	2
DENT	117	Dental Restorative Techniques Lab	1
DENT	118	Dental Anatomy	4
ENGL&	101	English Composition I	5
		Total	**24**

Fifth Quarter

CMST&	210	Interpersonal Communication	5
DENT	120	Intermediate Chairside Assisting Lab	1
DENT	121	Intermediate Chairside Assisting	5
DENT	122	Chairside Related Theory	4
DENT	124	Advanced Dental Radiology	1
DENT	125	Advanced Dental Radiology Lab	1
DENT	126	Dental Restorative Techniques	2
DENT	127	Dental Restorative Techniques Lab	2
DENT	129	Chairside Clinical Experience	2
		Total	**23**

Sixth Quarter

DENT	131	Advanced Chairside Assisting	4
DENT	132	Advanced Chairside Assisting Lab	2
DENT	136	Dental Restorative Techniques	1
DENT	137	Dental Restorative Techniques Lab	1
DENT	138	Office Management	4
DENT	139	Chairside Clinical Experience	8
		Total	**20**

112 credits are required for the Associate in Applied Science

[1] CHEM& 110 may be substituted with CHEM& 121.

DEVOPS ENGINEERING: SCC

DevOps Engineering – Cloud Computing Entry Bachelor of Applied Science

This program is designed to prepare students for employment in the specialized field of DevOps.

DevOps bonds Software development with the Networking & Cloud operations needed to deploy and manage software. Software development and Networking & Cloud operations historically worked independently of one another, DevOps is the process of combining people, processes, and technologies to build higher quality software rapidly.

The Bachelor of Applied Science (BAS) In DevOps Engineering will provide students with a foundation of theoretical and technical knowledge in DevOps. This degree prepares graduates to close the gap between software development and IT operations to create a unified and responsive approach to changing business needs and rapidly releasing high–quality application software and IT systems.

The program map below represents the courses a student would take entering with the Cloud Computing AAS. The courses students are required to take in the DevOps program in quarters 7–12 depend on the degree a student brings into the program. The Computer Network Design and Administration and the Software Development AAS degrees also feed into this program, and each have a set of required courses in the DevOps program. No student will be allowed to register for quarters 7–12 without meeting with DevOps faculty or Program Specialist

Note: It is required for all DevOps students to meet with DevOps faculty or Pathways Specialist in order to register for DevOps courses. Students will be given detailed instructions for which courses they should register for and their success in the program is dependent on appropriate course selection in each quarter.

First Quarter

CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	201	IT Essentials – A+	5
CIS	210	Introduction to Cloud Platforms	5
		Total	**15**

Second Quarter

CIS	134	Virtualization Technologies	3
CIS	244	Windows Server Installation and Configuration	5
CIS	246	AWS Cloud Practitioner	2
ENGL&	101	English Composition I	5
		Total	**15**

Third Quarter

CIS	206	Introduction to Linux/Unix	5
CIS	236	Windows Server Administration	5
CIS	250	Cisco I Introduction to Networks	5
		Total	**15**

Fourth Quarter

CIS	207	AWS Solutions Architect I	5
CIS	213	Advanced Linux/Unix	5
CIS	263	Advanced Windows Server	5
		Total	**15**

Fifth Quarter

CIS	208	AWS Solutions Architect II	5
CIS	270	Principles of Network Security	5
CIS	277	Database Administration	5
		Total	**15**

Sixth Quarter

CIS	200	Cisco DevNet	5
CIS	203	AWS SysOps Administrator	5
CMST&	210	Interpersonal Communication	5
		Total	**15**

Seventh Quarter

DVOP	320	Introduction to DevOps	5
DVOP	372	Cisco Network Infrastructure II	5
		Natural Sciences with a lab component	5
		Total	**15**

Eighth Quarter

DVOP	310	DevOps Programming I	5
DVOP	373	Cisco Network Infrastructure III	5
		Social Sciences Electives	5
		Total	**15**

Ninth Quarter

DVOP	311	DevOps Programming II	5
DVOP	374	Cisco Network Infrastructure IV	5
		Humanities	5
		Total	**15**

Tenth Quarter

DVOP	400	DevOps I	5
DVOP	410	DevOps Programming III	5
		General Electives	5
		Total	**15**

Eleventh Quarter

DVOP	401	DevOps II	5
DVOP	411	DevOps Programming IV	5
		General Electives	5
		Total	**15**

Twelfth Quarter

DVOP	480	AWS DevOps Engineering	5
		General Electives	10
		Total	**15**

180 credits are required for the Bachelor of Applied Science

General Electives

BUS&	101	Intro to Business	5
BUS&	201	Business Law	5
CIS	110	Introduction to Computer Applications	5
CMST&	101	Introduction to Communication	5
CMST&	220	Public Speaking	5
CMST	250	Managing Conflict Through Communication	5
ENGL&	102	Composition II	5
HLTH	102	Health Enhancement	5
MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
MATH&	146	Introduction to Stats	5
PE	275	Diversity in Sports	5

Humanities

CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
FILM	141	Introduction to Film	5
FRCH&	121	French I	5
MUSC	106	History of Popular Music	5
PHIL	110	Intro to Ethics	5
PHIL&	115	Critical Thinking	5
SPAN&	121	Spanish I	5

Natural Sciences with a lab component

ASTR&	101	Intro to Astronomy	5
BIOL&	160	General Biology w/Lab	5
CHEM&	110	Chemical Concepts w/Lab	5
ENVS&	101	Intro to Env Science	5
GEOL&	101	Intro Physical Geology	5
GEOL	210	Pacific Northwest Geology	5
PHYS	100	Introductory Physics	5

Social Sciences Electives

ANTH&	100	Survey of Anthropology	5
ECON	100	Fundamentals of Economics	5
GEOG&	100	Introduction to Geography	5
HIST&	116	Western Civilization I	5
HIST&	136	US History 1	5
POLS&	101	Intro to Political Science	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

DevOps Engineering – Computer Network Design & Administration Entry
Bachelor of Applied Science

This program is designed to prepare students for employment in the specialized field of DevOps.

DevOps bonds Software development with the Networking & Cloud operations needed to deploy and manage software. Software Development and Networking & Cloud operations historically worked independently of one another, DevOps is the process of combining people, processes, and technologies to build higher quality software rapidly.

The Bachelor of Applied Science (BAS) in DevOps Engineering will provide students with a foundation of theoretical and technical knowledge in DevOps. This degree prepares graduates to close the gap between software development and IT operations to create a unified and responsive approach to changing business needs and rapidly releasing high–quality application software and IT systems.

The program map below represents the courses a student would take entering with the Computer Network & Design AAS. The courses students are required to take in the DevOps program in quarters 7–12 depend on the degree a student brings into program. The Cloud Computing and the Software Development AAS degrees also feed into this program, and each have a set of required courses in the DevOps program. No student will be allowed to register for quarters 7–12 without meeting with DevOps faculty or Program Specialist

Note: It is required for all DevOps students to meet with DevOps faculty or Pathways Specialist in order to register for DevOps courses. Students will be given detailed instructions for which courses they should register for and their success in the program is dependent on appropriate course selection in each quarter.

First Quarter

CIS	103	Mobile Devices	2
CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	201	IT Essentials – A+	5
		Total	**12**

Second Quarter

CIS	206	Introduction to Linux/Unix	5
CIS	250	Cisco I Introduction to Networks	5
ENGL&	101	English Composition I	5
		Total	**15**

Third Quarter

CIS	134	Virtualization Technologies	3
CIS	213	Advanced Linux/Unix	5
CIS	244	Windows Server Installation and Configuration	5
CIS	251	Cisco II Switching, Routing, & Wireless I	5
		Total	**18**

Fourth Quarter

CIS	236	Windows Server Administration	5
CIS	252	Cisco III Switching, Routing, & Wireless II	5
CIS	270	Principles of Network Security	5
		Total	**15**

Fifth Quarter

CIS	246	AWS Cloud Practitioner	2
CIS	253	Cisco IV Enterprise Networking Security and Automation	5
CIS	263	Advanced Windows Server	5
CIS	286	Cisco Emerging Technologies	3
		Total	**15**

Sixth Quarter

CIS	275	Networking Capstone	5
CIS	277	Database Administration	5
CMST&	210	Interpersonal Communication	5
		Total	**15**

Seventh Quarter

DVOP	320	Introduction to DevOps	5
DVOP	330	Cloud Architecting I	5
		Natural Sciences with a lab component	5
		Total	**15**

Eighth Quarter

DVOP	310	DevOps Programming I	5
DVOP	425	Cloud Architecting II	5
		Social Sciences	5
		Total	**15**

Ninth Quarter

DVOP	311	DevOps Programming II	5
		Choose one DVOP elective	5
		Humanities	5
		Total	**15**

Tenth Quarter

DVOP	400	DevOps I	5
DVOP	410	DevOps Programming III	5
		General Electives	5
		Total	**15**

Eleventh Quarter

DVOP	401	DevOps II	5

DVOP	411	DevOps Programming IV	5
		General Electives	5
		Total	**15**

Twelfth Quarter

DVOP	480	AWS DevOps Engineering	5
		General Electives	10
		Total	**15**

180 credits are required for the Bachelor of Applied Science

Choose one DVOP elective

DVOP	370	Cisco Infrastructure Automation	5
DVOP	430	Cloud SysOps Administrator	5

General Electives

BUS&	101	Intro to Business	5
BUS&	201	Business Law	5
CIS	110	Introduction to Computer Applications	5
CMST&	220	Public Speaking	5
CMST	250	Managing Conflict Through Communication	5
ENGL&	102	Composition II	5
HLTH	102	Health Enhancement	5
MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
MATH&	146	Introduction to Stats	5
PE	275	Diversity in Sports	5

Humanities

CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
FILM	141	Introduction to Film	5
FRCH&	121	French I	5
MUSC	106	History of Popular Music	5
PHIL	110	Intro to Ethics	5
PHIL&	115	Critical Thinking	5
SPAN&	121	Spanish I	5

Natural Sciences with a lab component

ASTR&	101	Intro to Astronomy	5
BIOL&	160	General Biology w/Lab	5
CHEM&	110	Chemical Concepts w/Lab	5
ENVS&	101	Intro to Env Science	5
GEOL&	101	Intro Physical Geology	5
GEOL	210	Pacific Northwest Geology	5
PHYS	100	Introductory Physics	5

Social Sciences

ANTH&	100	Survey of Anthropology	5
ECON	100	Fundamentals of Economics	5
GEOG&	100	Introduction to Geography	5
HIST&	116	Western Civilization I	5
HIST&	136	US History 1	5
POLS&	101	Intro to Political Science	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

DevOps Engineering – Software Development Entry Bachelor of Applied Science

This program is designed to prepare students for employment in the specialized field of DevOps.

DevOps bonds Software development with the Networking & Cloud operations needed to deploy and manage software. Software development and Networking & Cloud operations historically worked independently of one another, DevOps is the process of combining people, processes, and technologies to build higher quality software rapidly.

The Bachelor of Applied Science (BAS) In DevOps Engineering will provide students with a foundation of theoretical and technical knowledge in DevOps. This degree prepares graduates to close the gap between software development and IT operations to create a unified and responsive approach to changing business needs and rapidly releasing high–quality application software and IT systems.

The program map below represents the courses a student would take entering with the Software Development AAS. The courses students are required to take in the DevOps program in quarters 7–12 depend on the degree a student brings into the program. The Cloud Computing and the Computer Network Design & Administration AAS degrees also feed into this program, and each have a set of required courses in the DevOps program. No student will be allowed to register for quarters 7–12 without meeting with DevOps faculty or Program Specialist

Note: It is required for all DevOps students to meet with DevOps faculty or Pathways Specialist in order to register for DevOps courses. Students will be given detailed instructions for which courses they should register for and their success in the program is dependent on appropriate course selection in each quarter.

First Quarter

CIS	107	Software Math	2
CIS	108	Computer Math	3
CIS	111	HTML5/CSS3	5
CIS	146	Introduction to Programming	5
		Total	**15**

Second Quarter

CIS	114	Frontend Development I	5
CIS	126	DBMS/SQL	5
CIS	130	Responsive Web Design	5
		Total	**15**

Third Quarter

CIS	117	Frontend Development II	5
CMST&	210	Interpersonal Communication	5
ENGL&	101	English Composition I	5
		Total	**15**

Fourth Quarter

CIS	230	PHP I	5
CIS	258	Backend Development I	5
CIS	282	Programming Principles	5
		Total	**15**

Fifth Quarter

CIS	217	Mobile Development I	5
CIS	233	PHP II	5
CIS	259	Backend Development II	5
		Total	**15**

Sixth Quarter

CIS	218	Mobile Development II	5
CIS	225	Content Management Systems	5
CIS	272	Agile Software Development	5
		Total	**15**

Seventh Quarter

DVOP	320	Introduction to DevOps	5
DVOP	325	Intro to Virtualization/Cloud	5
		Natural Sciences with a lab component	5
		Total	**15**

Eighth Quarter

DVOP	340	Linux Server Administration I	5
DVOP	371	Cisco Networking Infrastructure I	5
		Social Sciences	5
		Total	**15**

Ninth Quarter

DVOP	330	Cloud Architecting I	5
DVOP	341	Linux Server Administration II	5
		Humanities	5
		Total	**15**

Tenth Quarter

DVOP	400	DevOps I	5
DVOP	425	Cloud Architecting II	5
		General Electives	5
		Total	**15**

Eleventh Quarter

DVOP	401	DevOps II	5
DVOP	430	Cloud SysOps Administrator	5
		General Electives	5
		Total	**15**

Twelfth Quarter

DVOP	480	AWS DevOps Engineering	5
		General Electives	10
		Total	**15**

180 credits are required for the Bachelor of Applied Science

General Electives

BUS&	101	Intro to Business	5
BUS&	201	Business Law	5
CIS	110	Introduction to Computer Applications	5
CMST&	220	Public Speaking	5
CMST	250	Managing Conflict Through Communication	5
ENGL&	102	Composition II	5
HLTH	102	Health Enhancement	5
MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
MATH&	146	Introduction to Stats	5
PE	275	Diversity in Sports	5

Humanities

CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
FILM	141	Introduction to Film	5
FRCH&	121	French I	5
MUSC	106	History of Popular Music	5
PHIL	110	Intro to Ethics	5
PHIL&	115	Critical Thinking	5
SPAN&	121	Spanish I	5

Natural Sciences with a lab component

ASTR&	101	Intro to Astronomy	5
BIOL&	160	General Biology w/Lab	5
CHEM&	110	Chemical Concepts w/Lab	5
ENVS&	101	Intro to Env Science	5
GEOL&	101	Intro Physical Geology	5
GEOL	210	Pacific Northwest Geology	5
PHYS	100	Introductory Physics	5

Social Sciences

ANTH&	100	Survey of Anthropology	5
ECON	100	Fundamentals of Economics	5
GEOG&	100	Introduction to Geography	5
HIST&	116	Western Civilization I	5
HIST&	136	US History 1	5
POLS&	101	Intro to Political Science	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

DIAGNOSTIC MEDICAL SONOGRAPHY: SCC

Diagnostic Medical Sonography
Associate in Applied Science

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.

The program meets the criteria set forth by the Joint Review Committee on Diagnostic Medical Sonography and is accredited by CAAHEP. Upon completion and graduation of the program, graduates are able to take the national Abdomen and OB/GYN registry examinations administered by the American Registry of Diagnostic Medical Sonography.

Admission Requirements:

- Sonography courses are limited to students of the Diagnostic Medical Sonography program
- Active email account required
- Appropriate math score
- Self–place into English
- A 2.5 grade in each prerequisite course is required.
- Completion of all math and science prerequisites within the last five years to ensure current competency in content.
- Admission to the DMS program is competitive and based on panel interview, pre–requisite course GPA, additional math, science, and healthcare–related coursework, quality of reference letters, and completion of 40 hours volunteerism in healthcare and ultrasound.
- A 2.0 (79%) is required in every program course to proceed to the next quarter
- A national background check is conducted 1st and 4th quarters of the program
- Immunizations, current healthcare provider CPR, and 7–hour bloodborne pathogen training are required prior to the clinical internship in the 4th quarter

- Selective clinical sites require a ten–panel drug screen within 30 days of clinical internship
- Return to the program is based on "space available" and requires remedial work to demonstrate knowledge base appropriate with program re–entry point.
- After re–entry, students may only repeat a class one time. A repeat of courses must be completed within two years.

Admission Recommendations:

- Computer skills are recommended
- Some students find completion of CHEM 120 Organic and Biochemistry for Health Sciences, and CHEM 121 helpful to learning in the program

After entering the Diagnostic Medical Sonography program, students are required to maintain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students need to realize that clinical site placement could require relocation outside of the immediate Spokane area for 10 months.

Prerequisites

BIOL&	160	General Biology w/Lab [1]	
BIOL&	241	Human A & P 1	
BIOL&	242	Human A & P 2	
CMST&	210	Interpersonal Communication	
ENGL&	101	English Composition I	
HED	109	Human Physiology and Disease	
HED	125	Medical Terminology	
MATH&	146	Introduction to Stats [2]	
PHYS	100	Introductory Physics	

First Quarter

BIOL&	160	General Biology w/Lab [1]	5
ENGL&	101	English Composition I	5
MATH&	146	Introduction to Stats [2]	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1	5
CMST&	210	Interpersonal Communication	5
HED	125	Medical Terminology	5
		Total	**15**

Third Quarter

BIOL&	242	Human A & P 2	5
HED	109	Human Physiology and Disease	5
PHYS	100	Introductory Physics	5
		Total	**15**

Fourth Quarter

SONO	111	Introduction to DMS	2
SONO	112	Vascular for General Sonographer	4
SONO	121	Human Cross-Section Anatomy	4
SONO	125	Ultrasound Physics and Instrumentation I	5
		Total	**15**

Fifth Quarter

SONO	131	Diagnostic Ultrasound; Abdomen & Male Pelvis	4
SONO	132	Abdominal Case Studies & Journal Review	4
SONO	133	Diagnostic Ultrasound; Female Pelvis & 1st tri OB	4
SONO	135	Ultrasound Physics and Instrumentation II	5
		Total	**17**

Sixth Quarter

SONO	123	Cardiac for General Sonographer	4
SONO	141	Diagnostic Ultrasound; 2nd and 3rd trimester	4
SONO	144	OB/GYN Case Studies and Journal Review	4
SONO	145	Diagnostic Ultrasound; Small Parts	3
		Total	**15**

Seventh Quarter

SONO	142	Seminar in Sonography	4
SONO	143	Sonography Clinical I	9
		Total	**13**

Eighth Quarter

SONO	253	Sonography Clinical II	13
		Total	**13**

Ninth Quarter

SONO	263	Sonography Clinical III	13
		Total	**13**

Tenth Quarter

SONO	273	Sonography Clinical IV	13
		Total	**13**

144 credits are required for the Associate in Applied Science

1 This course is a prerequisite for BIOL& 241 but may be waived for transfer students who have completed Anatomy and Physiology at another institution. Please consult your adviser.

2 Or any counselor approved 100 level math course.

DIESEL/HEAVY DUTY EQUIPMENT: SCC

Diesel/Heavy Duty Equipment
Associate in Applied Science

Diesel/Heavy Duty mechanics repair and maintain trucks, busses, 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.

First Quarter

APLED	121	Applied Written Communication [1]	4
HEQ	111	Basic Electrical Theory	7
HEQ	112	Basic Electrical Applications	9
		Total	**20**

Second Quarter

APLED	112	Applied Mathematics [1]	4
HEQ	121	Basic Principles of Engine Theory	7
HEQ	122	Basic Engine Applications	9
		Total	**20**

Third Quarter

APLED	123	Leadership Skills for Business and Industry [1]	4
HEQ	131	Principles of Power Train Theory	7
HEQ	132	Power Train Applications	9
		Total	**20**

Fourth Quarter

HEQ	241	Heavy Equipment Hydraulic Theory	7
HEQ	242	Heavy Duty Equipment Hydraulic Application	9
WELD	151	HEQ Welding I	3
		Total	**19**

Fifth Quarter

HEQ	251	Practical Shop Procedures	7
HEQ	252	Practical Shop	9
WELD	152	HEQ Welding II	3
		Total	**19**

Sixth Quarter

HEQ	261	Practical Shop Procedures [2]	7
HEQ	262	Practical Shop [2]	6
HEQ	294	Special Problems [3]	3
		Total	**16**

114 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 2 credits of HEQ 266 and 11 credits of HEQ 267 may be substituted for HEQ 261 and 262. (This option requires HEQ department approval)
3 3 credits of HEQ 291, 292 and 293 may be substituted for HEQ 294. (This option requires HEQ department approval).

DIGITAL FILMMAKING: SFCC

Digital Filmmaking
Associate in Applied Science

The Digital Filmmaking AAS–T and AAS degrees are an interdisciplinary study of cinematography, acting, directing, and writing that prepares students to pursue careers in a variety of related fields such as filmmaking, commercial advertising, corporate video production, social media marketing and web content creation, broadcast television, and filmmaking.

The Digital Filmmaking degree will allow students to draw upon the strengths of the photography, drama, and film departments to help develop the skills necessary to succeed in various, rapidly evolving fields centered around digital video production.

Courses

A. Program Courses (all required)	70
B. Art Elective (choose 5 credits)	5
C. Film Elective (choose 5 credits)	5
D. Communication Elective (choose 5 credits)	5
E. Computation Elective (choose 5 credits)	5
F. Human Relations/Leadership Elective (choose 5 credits)	5
Total	**95**

95 credits are required for the Associate in Applied Science

A. Program Courses (all required)

DRMA	150	Acting for Film and Television	5
DRMA	280	Writing for Stage and Screen	5
DRMA	290	Directing for Stage and Screen	5
HLTH	174	First Aid	3
PHOTO	101	Introduction to Photography	5
PHOTO	110	Introduction to Film Editing	5
PHOTO	114	Digital Cinematography I	5
PHOTO	126	Digital Photography	5
PHOTO	130	Digital Cinematography II	5
PHOTO	200	Photography Media	5
PHOTO	225	Portfolio Development II	5
PHOTO	228	Film Development and Producing	5
PHOTO	237	Documentary Storytelling	5
PHOTO	247	Narrative Storytelling	5
PHOTO	266	Cooperative Education Seminar	1
PHOTO	267	Cooperative Education Work Experience	1

B. Art Elective (choose 5 credits)

ART&	100	Art Appreciation	5
ART	105	Color and Design	5
PHOTO	120	Photographic Arts	5

C. Film Elective (choose 5 credits)

FILM	141	Introduction to Film	5
FILM	222	American Film Classics	5
FILM	224	Contemporary Global Cinema	5
FILM	225	Independent Film	5
FILM	236	The Documentary Film	5

D. Communication Elective (choose 5 credits)

BT	107	Business Communications	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5

E. Computation Elective (choose 5 credits)

ACCT	140	QuickBooks	5
BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

F. Human Relations/Leadership Elective (choose 5 credits)

BUS	280	Human Relations in Business	5
CMST&	101	Introduction to Communication	5
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5
MMGT	101	Principles of Management	5
PSYC&	100	General Psychology	5

Digital Filmmaking
Associate in Applied Science–Transfer

The Digital Filmmaking AAS–T and AAS degrees are an interdisciplinary study of cinematography, acting, directing, and writing that prepares students to pursue careers in a variety of related fields such as filmmaking, commercial advertising, corporate video production, social media marketing and web content creation, broadcast television, and filmmaking.

The Digital Filmmaking degree will allow students to draw upon the strengths of the photography, drama, and film departments to help develop the skills necessary to succeed in various, rapidly evolving fields centered around digital video production.

Courses

A. Program Courses (all required)	70
B. English & Math Electives (all required)	10
C. Social Science Elective (choose 5 credits)	5

D. Lab Science Elective (choose 5 credits)	5
E. Non-Lab Science Elective (choose 5 credits)	5
Total	**95**

95 credits are required for the Associate in Applied Science–Transfer

A. Program Courses (all required)

DRMA	150	Acting for Film and Television	5
DRMA	280	Writing for Stage and Screen	5
DRMA	290	Directing for Stage and Screen	5
FILM	141	Introduction to Film	5
FILM	222	American Film Classics [1]	5
FILM	225	Independent Film	5
HLTH	174	First Aid	3
PHOTO	101	Introduction to Photography	5
PHOTO	110	Introduction to Film Editing	5
PHOTO	114	Digital Cinematography I	5
PHOTO	130	Digital Cinematography II	5
PHOTO	228	Film Development and Producing	5
PHOTO	237	Documentary Storytelling	5
PHOTO	247	Narrative Storytelling	5
PHOTO	266	Cooperative Education Seminar	1
PHOTO	267	Cooperative Education Work Experience	1

B. English & Math Electives (all required)

ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5

C. Social Science Elective (choose 5 credits)

ANTH&	100	Survey of Anthropology	5
ANTH&	206	Cultural Anthropology	5
ANTH&	210	Indigenous Peoples of North America	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

D. Lab Science Elective (choose 5 credits)

ASTR&	101	Intro to Astronomy	5
ENVS&	101	Intro to Env Science	5
GEOL&	101	Intro Physical Geology	5

E. Non–Lab Science Elective (choose 5 credits)

ANTH&	205	Biological Anthropology	5
BIOL	107	Dinosaur Paleontology	5
GEOL&	100	Survey of Earth Science	5
GEOL	116	Environmental Geology	5

[1] Students may take FILM 221 or 224, instead of FILM 222

DIGITAL MEDIA PRODUCTION: SFCC

Digital Media Production
Associate in Applied Science–Transfer

The Digital Media Production AAS–T degree is an interdisciplinary study of commercial photography, digital filmmaking, and Social Media Marketing that prepares students to pursue careers in a variety of communication fields such as news reporting, content marketing, and commercial video production.

Courses

A. Program Courses (all required)	70
B. Film Elective (choose 5 credits)	5
C. Social Science Elective (choose 5 credits)	5
D. Program Support / Related Instruction Courses (all required)	10
Total	**90**

90 credits are required for the Associate in Applied Science–Transfer

A. Program Courses (all required)

GRDSN	175	After Effects I	2
MMGT	125	Social Media Marketing	5
MMGT	128	Social Media Marketing Campaign	5
PHOTO	101	Introduction to Photography	5
PHOTO	110	Introduction to Film Editing	5
PHOTO	111	Studio Photography I	5
PHOTO	114	Digital Cinematography I	5
PHOTO	121	Location Photography I	5
PHOTO	126	Digital Photography	5
PHOTO	130	Digital Cinematography II	5
PHOTO	200	Photography Media	5
PHOTO	225	Portfolio Development II	5
PHOTO	227	Business of Photography	5
PHOTO	237	Documentary Storytelling	5
PHOTO	266	Cooperative Education Seminar [1]	1
PHOTO	267	Cooperative Education Work Experience [1]	2

B. Film Elective (choose 5 credits)

FILM	141	Introduction to Film	5
FILM	222	American Film Classics	5
FILM	224	Contemporary Global Cinema	5
FILM	225	Independent Film	5
FILM	236	The Documentary Film	5

C. Social Science Elective (choose 5 credits)

ANTH&	100	Survey of Anthropology	5
ANTH&	206	Cultural Anthropology	5
ANTH&	210	Indigenous Peoples of North America	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

D. Program Support / Related Instruction Courses (all required)

ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5

[1] Students may complete 3–credits of JOURN 101 instead of 3–credits of PHOTO 266/267

DRAMA: SFCC

Drama
Associate in Fine Arts

The Associate in Fine Arts (AFA) in Drama offers a solid foundation for students intending to pursue either a Bachelor of Arts (BA) or Bachelor of Fine Arts (BFA) at a four–year institution or for students who intend to transfer to a conservatory theatre school. The AFA prepares students to transfer to a four–year institution with a minimum of 90 credits, including 50 credits of Drama and 40 credits of General Education Requirements. University theatre departments and theatre conservatories may require an audition, interview, and/or portfolio for admission. The AFA prepares students for these application processes.

With the AFA, students transfer with a minimum of 90 credits to colleges and universities with which SFCC

maintains articulation agreements. Students must maintain a cumulative GPA of 2.0 or better. Students should meet with their drama advisor to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

Milestones:
a. Join the club, SFCC Bigfoot Drama, in your first quarter.
b. Meet with advisor during week 3 of gateway courses: quarters one, two and four.
c. Research volunteer opportunities or work–based learning locations in career field in the fourth quarter to prepare for DRMA 160.
d. Create/update resume in the summer quarter as part of DRMA 160.
e. Apply for graduation in the fourth quarter.

Courses

A. Program Courses (all required)	50
B. Theatre Production (10 credits)	10
C. General Education Courses (all required)	30
Total	**90**

90 credits are required for the Associate in Fine Arts

A. Program Courses (all required)

DRMA&	101	Intro to Theatre	5
DRMA	110	Musical Theatre Voice	3
DRMA	140	Introduction to Theatrical Design and Technology [1]	5-6
DRMA	150	Acting for Film and Television [2]	5
DRMA	160	Theatre Experience [3]	2
DRMA	240	Scenic Design and Technology [1]	5-6
DRMA	245	Lighting Design and Technology [1]	5-6
DRMA	250	Basics of Acting I	5
DRMA	255	Basics of Acting II	5
DRMA	280	Writing for Stage and Screen	5
DRMA	290	Directing for Stage and Screen	5

B. Theatre Production (10 credits) [4]

DRMA	106	Theatre Production [4]	1-5
DRMA	107	Theatre Production [4]	1-5
DRMA	108	Theatre Production [4]	1-5

C. General Education Courses (all required)

CMST&	101	Introduction to Communication [5]	5
ENGL&	101	English Composition I	5
ENGL&	220	Intro to Shakespeare [6]	5
MATH&	107	Math in Society	5
PHYS	100	Introductory Physics [7]	5
PSYC&	100	General Psychology [8]	5

1 Students who take 6–credit versions of DRMA 140, 240 or 245 may take fewer credits of Theatre Production to graduate with 90 credits. See advisor for assistance.
2 PHOTO 247: HDSLR Filmmaking may be substituted for DRMA 150
3 Summer (Fourth Quarter) – DRMA 260 Theatre Experience may be substituted for DRMA 160
4 A total of 10 credits in DRMA 106, 107, & 108 must be accumulated by the completion of the program over the course of a minimum of four quarters, with a minimum of one credit in each. Students who take 6–credit versions of DRMA 140, 240 or 245 may take fewer credits of Theatre Production to graduate with 90 credits. See advisor for assistance.
5 Summer (Fourth Quarter) – CMST 220 Public Speaking may be substituted for CMST&101
6 Humanities Group A or C course of choice may be substituted for ENGL& 220
7 Laboratory Science course of choice may be substituted for PHYS 100
8 Social Science Group A or B course of choice may be substituted for PSYC& 100

EARLY CHILDHOOD EDUCATION: SFCC

Early Childhood Education
Associate in Applied Science

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

A. Program Courses (all required)	62
B. Program Electives (choose 13 credits)[1]	13
C. Computation/Math Elective (choose 5 credits) [2]	5
D. Communication Elective (ENGL& 101 required)	5
E. Human Relations/Leadership Elective (choose 5 credits)	5
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

ECED	103	College Success	3
ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	132	Infant/Toddler Care	3
ECED	133	Practicum: Infant/Toddler Care	2
ECED&	160	Curriculum Development	5
ECED&	170	Learning Environments	3
ECED&	180	Language and Literacy	3
ECED&	190	Observation and Assessment	3
ECED	191	Practicum: Observation and Assessment	2
ECED	282	Practicum I	5
ECED	283	Practicum II	5
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
EDUC&	150	Child, Family, Community	3
EDUC&	204	Exceptional Child	5

B. Program Electives (choose 13 credits) [1]

ART&	100	Art Appreciation	5
ASL&	121	Am Sign Language I	5
CMST	121	Job Communication Skills	2-5
CMST&	220	Public Speaking	5
CMST	227	Intercultural Communication	5
DRMA&	101	Intro to Theatre	5
ECED&	100	Child Care Basics	3
ECED	104	Early Achiever's Success Course	1
ECED	118	Early Childhood Education Seminar	1-11
ECED&	134	Family Childcare Management	3
ECED&	137	Outdoor Learning for Young Children	3
ECED&	138	Home Visitor / Family Engagement	3
ECED&	139	Administration of ECE	3
EDUC&	136	School-Age Care	3
ENGL&	102	Composition II	5
ENGL&	111	Intro to Literature	5
ENVS&	101	Intro to Env Science	5
GEOL&	100	Survey of Earth Science	5
HIST&	214	Pacific NW History	5
HUM&	101	Intro to Humanities	5
ICS	180	Child Abuse and Neglect	5
LMLIB	135	Children's Literature and Library Services	5
MUSC&	105	Music Appreciation	5
PHOTO	101	Introduction to Photography	5
PSYC&	100	General Psychology	5
PSYC&	200	Lifespan Psychology	5
SOC&	101	Intro to Sociology	5
SOC	211	Marriage and the Family	5

C. Computation/Math Elective (choose 5 credits) [2]

BUS	113	Discounts, Markups and Markdowns	1
BUS	114	Solving for the Unknown and Business Math Review	1
BUS	123	Practical Business Math Applications	5
MATH	87	Algebra for Math Literacy I	5

D. Communication Elective (ENGL& 101 required)

ENGL&	101	English Composition I	5

E. Human Relations/Leadership Elective (choose 5 credits)

CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5

[1] This is a list of suggested program electives. Students may choose any course or combination of courses numbered 100 or above.

[2] The 5–credit computation/math requirement may be satisfied with any 5–credit MATH course (087 or higher), any Quantitative/Symbolic Reasoning course listed on the AA–DTA degree, or any of these 5–credit combinations: BUS 110–114 ... or ... BUS 113, 114 & 122 ... or ... BUS 123.

Early Childhood Education
Associate in Applied Science–Transfer

The AAS–T is an associate degree providing comprehensive core early childhood content based on the Washington State Core Competencies for Early Care and Education Professionals and the National Association for the Education of Young Children (NAEYC). The balance of the degree is made up of general education coursework which is necessary for transfer.

Graduation requirements for AAS–T in Early Childhood Education: 90–95 credits in courses numbered 100 or above, to be distributed as follows:

- Communication Skills: 10 credits of English composition, or 5 credits of English composition and 5 credits of Communications
- Quantitative/Symbolic Reasoning: 5 credits
- Humanities: 5–10 credits (credit hours vary based on transfer destination)
- Social Sciences: 10 credits (General & Lifespan Psychology, or approved substitution)
- Lab Science: 5 credits
- 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).

Courses

A. Program Courses (all required)	50
B. Communication (all required)	10
C. Humanities (10-15 credits)	10-15
D. Lab Science (choose 5 credits)	5
E. Quantitative/Symbolic Reasoning (5 credits required)	5
F. Social Sciences (all required)	10
Total	**90–95**

90-95 credits are required for the Associate in Applied Science–Transfer

A. Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	132	Infant/Toddler Care	3
ECED&	160	Curriculum Development	5
ECED&	170	Learning Environments	3
ECED&	180	Language and Literacy	3
ECED&	190	Observation and Assessment	3
ECED	282	Practicum I [1]	5
ECED	283	Practicum II [2]	5
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
EDUC&	150	Child, Family, Community	3

B. Communication (all required) [3]

ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5

C. Humanities (10–15 credits) [4]

ART&	100	Art Appreciation	5
DRMA&	101	Intro to Theatre	5
FILM	141	Introduction to Film	5
HUM&	101	Intro to Humanities	5
MUSC&	105	Music Appreciation	5
PHIL&	101	Intro to Philosophy	5
PHIL	110	Intro to Ethics	5
PHIL&	115	Critical Thinking	5

D. Lab Science (choose 5 credits) [5]

ASTR&	101	Intro to Astronomy	5
BOT	112	Botany: Survey of the Plant Kingdom	5
CHEM&	110	Chemical Concepts w/Lab	5
ENVS&	101	Intro to Env Science	5
GEOL&	101	Intro Physical Geology	5
PHYS	100	Introductory Physics	5

E. Quantitative/Symbolic Reasoning (5 credits required) [6]

MATH&	107	Math in Society	5

F. Social Sciences (all required) [7]

PSYC&	100	General Psychology	5
PSYC&	200	Lifespan Psychology	5

1 Students completing the ECED EWU transfer pathway substitute EDUC& 204.

2 Students completing the ECED EWU transfer pathway substitute one additional course from the Lab Science list (10 total credits of lab science).

3 Communication: ENGL& 101 and ENGL& 102 are required. Students may take CMST&101 instead of ENGL& 102 with an approved substitution. Refer to the appropriate AAS–T program map for required course options.

4 Humanities: CMST 227 is required. Students on the EWU transfer pathway choose an additional 10 credits from the list (completing 95 total credits for the degree). Students on the WSU transfer pathway choose an additional 5 credits from the following: ART& 100, DRMA& 101, FILM 141, MUSC& 105. All others choose an additional 5 credits. Refer to the appropriate AAS–T program map for required course options.

5 Lab Science: Students on the EWU pathway choose two lab science courses totaling 10 credits. All others choose 5 credits. Refer to the appropriate AAS–T program map for required course options.

6 Quantitative/Symbolic Reasoning: MATH& 107 is required, but any QSR course on the AA–DTA worksheet may be used with an approved substitution. Refer to the appropriate AAS–T program map for required course options.

7 PSYC&100 and 200 are required. Students may substitute 10 credits from the Social Sciences distribution group on the AA–DTA worksheet with an approved substitution. Consult an academic advisor for assistance.

State Early Childhood Education Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

A. Program Courses (all required)	31
B. Specialization Choice (choose 3 credits) [1]	3
C. EDUC& 130 or ECED& 170 (choose one) [2]	3
D. English Course (ENGL& 101 required)	5
E. Math Elective (choose 5 credits) [3]	5
Total	**47**

47 credits are required for the Certificate

A. Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	160	Curriculum Development	5
ECED&	180	Language and Literacy	3
ECED&	190	Observation and Assessment	3
EDUC&	115	Child Development	5
EDUC&	150	Child, Family, Community	3

B. Specialization Choice (choose 3 credits) [1]

ECED&	132	Infant/Toddler Care	3
ECED&	134	Family Childcare Management	3
ECED&	137	Outdoor Learning for Young Children	3
ECED&	138	Home Visitor / Family Engagement	3
ECED&	139	Administration of ECE	3
EDUC&	130	Guiding Behavior	3
EDUC&	136	School-Age Care	3

C. EDUC& 130 or ECED& 170 (choose one) [2]

ECED&	170	Learning Environments	3
EDUC&	130	Guiding Behavior	3

D. English Course (ENGL& 101 required)

ENGL&	101	English Composition I	5

E. Math Elective (choose 5 credits) [3]

BUS	113	Discounts, Markups and Markdowns	1
BUS	114	Solving for the Unknown and Business Math Review	1
BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

1 Choose ONE specialization course

2 If you completed EDUC&130 for your Specialization Choice, you MUST complete ECED&170. Otherwise, you may complete either course (EDUC&130 or ECED&170).

3 May choose any combination of courses totaling 5–credits from the math electives list. This includes any Quantitative/Symbolic Reasoning course listed on the AA–DTA degree, or any of these 5–credit combinations: BUS 110–114 ... or ... BUS 113, 114 & 122 ... or ... BUS 123.

State Initial Early Childhood Education Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

Program Courses (all required)	12
Total	**12**

12 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2

State Short Early Childhood Education - Administration Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

Program Courses (all required)	20
Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	139	Administration of ECE	3
EDUC&	115	Child Development	5

State Short Early Childhood Education - Family Child Care Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

	Program Courses (all required)	20
	Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	134	Family Childcare Management	3
EDUC&	115	Child Development	5

State Short Early Childhood Education - General Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

	Program Courses (all required)	20
	Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3

State Short Early Childhood Education - Home Visitor/ Family Engagement Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

	Program Courses (all required)	20
	Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	138	Home Visitor / Family Engagement	3
EDUC&	115	Child Development	5

State Short Early Childhood Education - Infant Toddler Care Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/ motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

	Program Courses (all required)	20
	Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	132	Infant/Toddler Care	3
EDUC&	115	Child Development	5

State Short Early Childhood Education - Outdoor Learning Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/ motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90–95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

	Program Courses (all required)	20
	Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	137	Outdoor Learning for Young Children	3
EDUC&	115	Child Development	5

State Short Early Childhood Education - School-Age Care Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social/emotional, physical/ motor, language/literacy, cognitive, and creative for children from birth through age 8. Courses also are available for providers 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.

SFCC Early Childhood Education program options:

- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees. (State Initial Certificate = 12 credits / State Short Certificate(s) of Specialization = 20 credits / State Certificate = 47 credits)
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives to support professional development and career goals.
- Associate in Applied Science Transfer (AAS–T) degree (90-95 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Specialized AAS–T agreements with four–year schools supporting seamless transfer for advanced degree opportunities: Eastern WA University –Bachelor of Education in P3 Teacher Certification, and WA State University –Bachelor of Human Development.
- Associate in 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.

Courses

	Program Courses (all required)	20
	Total	**20**

20 credits are required for the Certificate

Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
EDUC&	115	Child Development	5
EDUC&	136	School-Age Care	3

ECHOCARDIOGRAPHY: SCC

Echocardiography
Associate in Applied Science

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 cardiovascular sonographer 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 cardiovascular sonographer 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). JRC–CVT 6 Pine Knoll Dr. Beverly, MA 01915–1425 (978) 456–5594. Students within the Echocardiography program are required to complete a six month, full–time clinical internship. As clinical space is limited in Spokane and the surrounding area, the student may be required to complete their internship in an out–of–town and/or out–of–area medical center.

Admission Requirements:

- ECHO courses are limited to students of the Echocardiography program
- Active email account required
- Appropriate math score
- Self–place into English
- A 2.5 grade in each prerequisite course is required and course completion should be no older than 5 years
- Admission to the ECHO program is competitive and based on a panel interview, prerequisite course GPA, additional math, science, and healthcare related coursework, quality of reference letters, and completion of 40 hours volunteerism in healthcare and cardiovascular ultrasound
- A 2.0 (79%) is required in every program course to proceed to the next quarter
- National background check is conducted prior to admission and 4th quarter of the program
- Immunizations, current healthcare provider CPR, and 7 hour blood borne pathogen training are required prior to clinical internship in the 4th quarter
- Selective clinical sites require a ten–panel drug screen within 30 days of clinical internship
- Return to the program is based on "space available" and requires remedial work to demonstrate knowledge base appropriate with program re–entry point
- After re–entry, students may only repeat a class one time. Repeat of courses must be completed within two years

Admission Recommendations:

- Computer skills are recommended
- Some students find completion of CHEM 120 Organic and Biochemistry for Health Sciences and CHEM 121 helpful to learning in the program
- Additional healthcare related courses such as HED 109, 129 or nursing assistant coursework

After entering the Echocardiography program, students are required to maintain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students need to realize that clinical site placement could require relocation outside of the immediate Spokane area for 10 (4 weeks in August and 6 months for full time) months.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
CMST&	210	Interpersonal Communication
ENGL&	101	English Composition I
HED	109	Human Physiology and Disease
HED	125	Medical Terminology
MATH&	146	Introduction to Stats [1]
PHYS	100	Introductory Physics

First Quarter

BIOL&	160	General Biology w/Lab	5
ENGL&	101	English Composition I	5
MATH&	146	Introduction to Stats [1]	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1	5
CMST&	210	Interpersonal Communication	5
HED	125	Medical Terminology	5
		Total	**15**

Third Quarter

BIOL&	242	Human A & P 2	5
HED	109	Human Physiology and Disease	5
PHYS	100	Introductory Physics	5
		Total	**15**

Fourth Quarter

ECHO	100	Introduction to Echo and Vascular	2
ECHO	105	Introductory Echocardiographic Technical Skills	1
ECHO	112	Vascular Fundamentals	3
ECHO	115	Vascular Fundamentals Technical Skills	2
ECHO	118	Cardiovascular Physiology I	2
ECHO	125	Ultrasound Physics and Instrumentation I	5
ECHO	213	Electrocardiography	3
ECHO	214	Electrocardiography Lab	1
		Total	**19**

Fifth Quarter

ECHO	121	Technical Skills/Vascular Procedures I	2
ECHO	122	Vascular Procedures I	3
ECHO	130	Echo Fundamentals Lab	2
ECHO	133	Echo Fundamentals	4
ECHO	135	Ultrasound Physics and Instrumentation II	5
ECHO	138	Cardiovascular Physiology II	3
		Total	**19**

Sixth Quarter

ECHO	131	Core Concepts in Echo Vasc	2
ECHO	136	Comparative Imaging Analysis	3
ECHO	253	Echocardiography I	6
ECHO	254	Technical Skills Echocardiography I	4
		Total	**15**

Seventh Quarter

ECHO	139	Surgical Asepsis	1
ECHO	140	Technical Skills/Surgical Asepsis	1
ECHO	142	Echo Clinical Preparation	4
ECHO	143	Echo Clinical I	6
ECHO	255	Research Methods and Biostatistics	3
		Total	**15**

Eighth Quarter

ECHO	251	Echocardiography Clinical II	6
ECHO	252	Cardiovascular Pathophysiology	1
ECHO	263	Echocardiography II	6
ECHO	264	Technical Skills Echo II	2
		Total	**15**

Ninth Quarter

ECHO	261	Echocardiography Clinical III	14
ECHO	265	Echocardiography Seminar I	2
		Total	**16**

Tenth Quarter

ECHO	273	Echocardiography Clinical IV	14
ECHO	275	Echocardiography Seminar II	2
		Total	**16**

160 credits are required for the Associate in Applied Science

[1] Or any counselor approved 100 level math course.

EDUCATION PARAEDUCATOR: SFCC

Education Paraeducator
Associate in Applied Science

The Education Paraeducator program provides theory and practice in the skills required to become an effective member of an instructional team. A paraeducator 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. This is an online program providing three options for two–year AAS degrees or a one–year certificate.

AAS Education Paraeducator, Special Education: 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. Students will need to successfully pass a Basic Skills Test in reading, writing, and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on experiences in schools and approved agencies are provided throughout this course of study. The focus on Special Education includes the core curriculum courses and delves deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities. Paraeducator classes are taught online with required practicum hours in an educational setting.

AAS Education Paraeducator, Early Childhood: Courses include core curriculum and is intended to meet the needs of persons who wish to become paraeducators in grades K–3. Courses are offered through eLearning and/or days and evenings. In addition, this program fulfills the requirements for the WA State ECED Stackable Certificates (12 credit Initial, 20 credit State Short Certificate(s) of Specialization, 47 credit State ECED Certificate).

AAS Education Paraeducator, School Library Media Technician: Courses include the core curriculum and is intended to meet the needs of persons who wish to become paraeducators or school library clerks or assistants in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take a work experience class.

Education Paraeducator, Signing Paraeducator: This program includes core curriculum and is intended for those seeking paraeducator training with an emphasis in American Sign Language. Paraeducators assist in classrooms with children or adults in instructional settings under the direction of a certified teacher. Courses are offered online and/or on campus. This is a 90 credit, two–year program. Students who complete this program will receive an AAS degree in Education Paraeducator with an emphasis in ASL.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the Associate in Arts degree. An education pre–major is

established at Spokane Falls Community College, offering classes that will transfer to some four–year colleges. It is important to contact an advisor in the Education or Education Paraeducator Programs for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special needs. However, federal guidelines require most paraeducators in public K–12 schools to complete a two–year program.

Special Education Option

Courses

A. Program Courses (all required)	63
B. Program Electives (choose 10 credits)	10
C. Technology Elective (choose 2 credits)	2
D. Computation/Math Elective (choose 5 credits)	5
E. English Course (ENGL& 101 required)	5
F. Human Relations/Leadership Elective (choose 5 credits)	5
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

ASL&	121	Am Sign Language I	5
CMST	227	Intercultural Communication	5
EDUC&	101	Paraeducator Basics [1]	3
EDUC&	115	Child Development	5
EDUC&	202	Introduction to Education	5
EDUC&	204	Exceptional Child	5
EDUC	260	Educational Psychology	5
EDUC	270	Introduction to Developmental Disabilities	5
EDUC	275	Learning Disabilities	5
EDUC	280	Behavior and Classroom Management	5
EDUC	281	Paraeducator Practicum I	5
EDUC	282	Paraeducator Practicum II [2]	2
HLTH	174	First Aid	3
PSYC&	100	General Psychology	5

D. Computation/Math Elective (choose 5 credits) [4]

BUS	123	Practical Business Math Applications	5
MATH	87	Algebra for Math Literacy I	5

E. English Course (ENGL& 101 required) [5]

ENGL&	101	English Composition I	5

F. Human Relations/Leadership Elective (choose 5 credits)

CMST&	210	Interpersonal Communication	5
ICS	120	Multicultural Perspectives in ICS	5
ICS	136	Improving Interpersonal Communication	5
ICS	180	Child Abuse and Neglect	5
SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

1 EDUC& 101 (Paraeducator Basics) should be taken the first quarter of the program.

2 EDUC 282 Prerequisite: Must successfully pass a Basic Skills Test. See the instructor prior to registration.

3 Technology course must be from IS, CAPPS, GRDSN, LMLIB 126 or other Internet related course.

4 May complete the Computation/Math Elective with BUS 123 (Practical Business Applications), or with any MATH course 87 or above.

5 May substitute BT 107 (Business Communications) for ENGL& 101.

Early Childhood Education Option

Courses

A. Program Courses (all required)	77
B. Computation/Math Elective (choose 5 credits) [4]	5
C. English Course (ENGL& 101 required)	5
D. Human Relations Leadership Elective (choose 5 credits)	5
Total	**92**

92 credits are required for the Associate in Applied Science

A. Program Courses (all required)

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	132	Infant/Toddler Care [1]	3
ECED	133	Practicum: Infant/Toddler Care [1]	2
ECED&	160	Curriculum Development	5
ECED&	170	Learning Environments [2]	3
ECED&	180	Language and Literacy	3
ECED&	190	Observation and Assessment [3]	3
ECED	191	Practicum: Observation and Assessment[3]	2
EDUC&	101	Paraeducator Basics	3
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
EDUC&	150	Child, Family, Community	3
EDUC&	202	Introduction to Education	5
EDUC&	204	Exceptional Child	5
EDUC	260	Educational Psychology	5
EDUC	270	Introduction to Developmental Disabilities	5
EDUC	275	Learning Disabilities	5
PSYC&	100	General Psychology	5

B. Computation/Math Elective (choose 5 credits) [4]

BUS	110	Basic Mathematics Review	1
BUS	111	Percents and Simple Interest	1
BUS	112	Payroll and Compound Interest	1
BUS	113	Discounts, Markups and Markdowns	1
BUS	114	Solving for the Unknown and Business Math Review	1
BUS	122	Practical Business Math	3
BUS	123	Practical Business Math Applications	5
MATH	87	Algebra for Math Literacy I	5

C. English Course (ENGL& 101 required)

ENGL&	101	English Composition I	5

D. Human Relations Leadership Elective (choose 5 credits)

CMST	227	Intercultural Communication	5
ICS	136	Improving Interpersonal Communication	5
ICS	150	Introduction to Gerontology	5
ICS	180	Child Abuse and Neglect	5
SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

[1] Require placement in an approved setting with infants and/or toddlers.
[2] May require application of coursework in an approved early learning setting.
[3] Require placement in an approved early learning setting.
[4] May satisfy this requirement with BUS 110, 111, 112, 113, 114, 122, or 123... or with any MATH course numbered 87 or above.

School Library Media Technician Option

Courses

A. Program Courses (all required)	71
B. CAPPS Program Electives (choose 4 credits)	4
C. Computation/Math Elective (choose 5 credits)	5
D. Program Support / Related Instruction Courses (all required)	10
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

EDUC&	101	Paraeducator Basics	3
EDUC&	115	Child Development	5
EDUC&	202	Introduction to Education	5
EDUC&	204	Exceptional Child	5
EDUC	260	Educational Psychology	5
EDUC	270	Introduction to Developmental Disabilities	5
EDUC	275	Learning Disabilities	5
EDUC	280	Behavior and Classroom Management [1]	5
EDUC	282	Paraeducator Practicum II	2
LMLIB	115	Library Organization and Collections	5
LMLIB	125	School Libraries and Media Centers	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	135	Children's Literature and Library Services	5
LMLIB	220	Technical Services and Cataloging [2]	5
LMLIB	222	Reference and Information Services	5
LMLIB	288	Cooperative Education Work Experience (No Seminar)	3

C. Computation/Math Elective (choose 5 credits) [3]

BUS	123	Practical Business Math Applications	5
MATH	87	Algebra for Math Literacy I	5

D. Program Support / Related Instruction Courses (all required)

ENGL&	101	English Composition I [4]	5
PSYC&	100	General Psychology	5

[1] Students may substitute CMST&210 (Interpersonal Communication) for EDUC 280 with advisor approval.
[2] Students may substitute LMLIB 116 (Circulation Systems & Services) for LMLIB 220.
[3] Computation/Math Elective: Students may choose BUS123 (no placement testing), or MATH 87 or higher (requires math placement testing).
[4] Students may choose BT 107 (no placement testing), instead of ENGL& 101 which requires English placement testing.

Signing Paraeducator Option

Courses

A. Program Courses (all required)	73
B. CAPPS Elective (choose 2 credits)	2
C. Program Support / Related Instruction Courses (all required)	15
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

ASL&	121	Am Sign Language I	5
ASL&	122	Am Sign Language II	5
ASL&	123	Am Sign Language III	5
ASL&	221	American Sign Language IV	5
ASL&	222	American Sign Language V	5
ASL&	223	American Sign Language VI	5
EDUC&	101	Paraeducator Basics	3
EDUC&	202	Introduction to Education	5
EDUC&	204	Exceptional Child	5
EDUC	260	Educational Psychology	5
EDUC	270	Introduction to Developmental Disabilities	5
EDUC	275	Learning Disabilities	5
EDUC	280	Behavior and Classroom Management	5
EDUC	281	Paraeducator Practicum I	5
ITP	241	Deaf Social and Cultural Issues	5

B. CAPPS Elective (choose 2 credits)

CAPPS	141	Word I	2
CAPPS	142	Word II	2
CAPPS	152	Excel II	2
CAPPS	172	PowerPoint II	2

C. Program Support / Related Instruction Courses (all required)

BUS	123	Practical Business Math Applications [1]	5
ENGL&	101	English Composition I	5
PSYC&	100	General Psychology	5

[1] Instead of BUS 123, students may complete MATH& 107 (Math in Society)

Education Paraeducator Certificate

The Education Paraeducator program provides theory and practice in the skills required to become an effective member of an instructional team. A paraeducator 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. This is an online program providing three options for two–year AAS degrees or a one–year certificate.

AAS Education Paraeducator, Special Education: 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. Students will need to successfully pass a Basic Skills Test in reading, writing, and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on

experiences in schools and approved agencies are provided throughout this course of study. The focus on Special Education includes the core curriculum courses and delves deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities. Paraeducator classes are taught online with required practicum hours in an educational setting.

AAS Education Paraeducator, Early Childhood: Courses include core curriculum and is intended to meet the needs of persons who wish to become paraeducators in grades K–3. Courses are offered through eLearning and/or days and evenings. In addition, this program fulfills the requirements for the WA State ECED Stackable Certificates (12 credit Initial, 20 credit State Short Certificate(s) of Specialization, 47 credit State ECED Certificate).

AAS Education Paraeducator, School Library Media Technician: Courses include the core curriculum and is intended to meet the needs of persons who wish to become paraeducators or school library clerks or assistants in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take a work experience class.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the Associate in Arts degree. An education pre–major is established at Spokane Falls Community College, offering classes that will transfer to some four–year colleges. It is important to contact an advisor in the Education or Education Paraeducator Programs for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special needs. However, federal guidelines require most paraeducators in public K–12 schools to complete a two–year program.

Courses

A. Program Courses (all required)	28
B. Certificate Elective (choose 2 or more credits)	2
C. Communication Elective (choose 5 credits)	5
D. Computation/Math Elective (BUS 123 required)	5
E. Human Relations/Leadership Elective (choose 5 credits)	5
Total	**45**

45 credits are required for the Certificate

A. Program Courses (all required)

EDUC&	101	Paraeducator Basics	3
EDUC&	204	Exceptional Child	5
EDUC	260	Educational Psychology	5
EDUC	270	Introduction to Developmental Disabilities	5
EDUC	275	Learning Disabilities	5
EDUC	280	Behavior and Classroom Management	5

B. Certificate Elective (choose 2 or more credits) [1]

ASL&	121	Am Sign Language I	5
CAPPS	102	Introduction to Office	1
EDUC	281	Paraeducator Practicum I	5
EDUC	282	Paraeducator Practicum II	2
HLTH	174	First Aid	3
ICS	100	Introduction to Integrated Community Services	5
ICS	180	Child Abuse and Neglect	5
LMLIB	125	School Libraries and Media Centers	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	135	Children's Literature and Library Services	5

C. Communication Elective (choose 5 credits)

BT	107	Business Communications	5
ENGL&	101	English Composition I	5

D. Computation/Math Elective (BUS 123 required)

BUS	123	Practical Business Math Applications	5

E. Human Relations/Leadership Elective (choose 5 credits)

CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
ICS	136	Improving Interpersonal Communication	5
ICS	180	Child Abuse and Neglect	5
SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

[1] Certificate Elective: Consider taking coursework from the list, or coursework from other areas of interest.

ELECTRICAL MAINTENANCE AND AUTOMATION: SCC

Electrical Maintenance and Automation
Associate in Applied Science

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.

First Quarter

APLED	113	Introduction to Computers for Technology	3
APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	113	Safety and Tools	4
ELMT	114	Materials and Fasteners	4
		Total	**25**

Second Quarter

ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	124	Motor Maintenance	4
ELMT	262	Raceways	4
		Total	**18**

Third 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 Quarter

APLED	125	Employment Preparation [1]	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 Quarter

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
		Total	**18**

Sixth Quarter

ELMT	244	Solid State Motor Controls [2]	4
ELMT	263	Wiring Techniques [2]	4
ELMT	265	Advanced Programmable Controllers [2]	5
ELMT	268	Programmable Controller Integration [2]	5
		Total	**18**

Seventh Quarter

		Optional Summer Courses	0-18
		Total	**0–18**

121-139 credits are required for the Associate in Applied Science

Optional Summer Courses

ROBO	271	Pneumatic Theory	5
ROBO	272	Pneumatic Math and Symbols	4
ROBO	273	Hydraulic Theory	5
ROBO	274	Applied Hydraulics	4

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 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.

Power Systems Maintenance
Associate in Applied Science

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.

Only students who have received prior approval from the Bonneville Power Administration are eligible for this degree option.

First Quarter

APLED	113	Introduction to Computers for Technology	3
APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	113	Safety and Tools	4
ELMT	114	Materials and Fasteners	4
		Total	**25**

Second Quarter

ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	124	Motor Maintenance	4
ELMT	262	Raceways	4
		Total	**18**

Third 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 Quarter

APLED	125	Employment Preparation [1]	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 Quarter

FLPT	271	Pneumatic Theory	5
FLPT	272	Pneumatic Math and Symbols	4
FLPT	273	Hydraulic Theory	5
FLPT	274	Applied Hydraulics	4
		Total	**18**

Sixth Quarter

		Cooperative Education Electives [2]	18
		Total	**18**

121 credits are required for the Associate in Applied Science

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 related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 The cooperative education supervisor must approve the worksite chosen. ELMT 266 and 267 must be taken concurrently.

ELECTRICAL TRAINEE: SCC

Electrical Sales Certificate

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 advisors 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.

First Quarter

APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	114	Materials and Fasteners	4
		ELMT Course Elective(s) [2]	4
		Total	**22**

Second Quarter

APLED	123	Leadership Skills for Business and Industry	3
ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	262	Raceways	4
		ELMT Course Elective(s) [2]	4
		Total	**21**

Third Quarter

APLED	125	Employment Preparation [1]	3
		Cooperative Education Electives [3]	18
		Total	**21**

64 credits are required for the Certificate

Cooperative Education Electives [3]

ELMT	266	Cooperative Education Seminar [3]	2
ELMT	267	Cooperative Education Work Experience [3]	16
ELMT	288	Cooperative Education Work Experience (No Seminar) [3]	18

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 Choose one additional ELMT course.

3 ELMT 266 and 267 must be taken concurrently.

Electrical Trainee Certificate

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 advisors 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.

First Quarter

APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	114	Materials and Fasteners	4
		ELMT Course Elective(s) [2]	4
		Total	**22**

Second Quarter

ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	262	Raceways	4
		ELMT Course Elective(s) [2]	4
		Total	**18**

Third Quarter

APLED	125	Employment Preparation [1]	3
		ELMT Course Elective(s) [3]	16-20
		Total	**19–23**

59-63 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 Choose one additional ELMT course.
3 Choose four additional ELMT courses.

ELECTRONICS ENGINEERING TECHNOLOGY: SCC

Electronics Engineering Technology
Associate in Applied Science

Dive into the world of cutting–edge electronics, where theory meets hands–on experience to prepare you for a career at the forefront of technology. The Electronics Technology AAS degree is designed for the innovators and troubleshooters of tomorrow. This degree will equip you with the skills to design, analyze, and repair advanced electronic systems used in industries like telecommunications, semiconductor fabrication, aerospace, renewable energy, and smart manufacturing. Through immersive lab experiences, you will work with microcontrollers, digital and analog circuits, and state–of–the–art testing equipment to bring ideas to life. The program emphasizes creativity, critical thinking, and industry–relevant certifications, preparing you to step into high–tech careers where you can shape the future of electronics and emerging technologies.

To qualify for an associate in applied science degree, students must successfully complete seven quarters of study.

Successful completion will be determined by meeting the following criteria

- A student must achieve an overall grade point average of 2.0 in all the required electronics courses and required specific related courses.
- A student must pass each of the classes during the first three quarters of the program with a minimum grade of 1.7.
- A student must pass each of the classes during the fourth through seventh quarters with a minimum grade of 2.0.

Note: upon review, the department chairperson and/or Technical Education Dean may waive any or all the previous criteria when extenuating circumstances arise.

First Quarter

ELECT	211	Digital Concepts	5
ELECT	212	Digital Concepts Lab	3
ELECT	225	Internet of Things [2]	4
ELECT	226	Internet of Things Lab	4
		Total	**16**

Second Quarter

APLED	121	Applied Written Communication [1]	4
ELECT	111	Circuit Theory 1	5
ELECT	112	Circuit Theory I Lab	4
ELECT	113	Electronics Math I [3]	5
		Total	**18**

Third Quarter

ELECT	121	Circuit Theory II	5
ELECT	122	Circuit Theory II Lab	3
ELECT	123	Electronics Math II [3]	5
		Total	**13**

Fourth Quarter

ELECT	131	Solid State Devices	5
ELECT	132	Solid State Devices Lab	3
ELECT	233	Microcontrollers & Embedded Systems	4
ELECT	234	Microcontrollers & Embedded Systems Lab	3
		Total	**15**

Fifth Quarter

APLED	125	Employment Preparation [2]	3
ELECT	215	Linear Devices	4
ELECT	216	Linear Devices Lab	3
ELECT	221	RF Communications	4
ELECT	222	RF Communications Lab	3
		Total	**17**

Sixth Quarter

ELECT	235	Photonics I	4
ELECT	236	Photonics I Lab	3
ELECT	237	Emerging Technologies	4
ELECT	238	Emerging Technologies Lab	2
		Total	**13**

Seventh Quarter

ELECT	271	Electronics Applications Seminar [4]	5
ELECT	272	Electronics Applications Capstone Project [4]	8
		Total	**13**

105 credits are required for the Associate in Applied Science

1 APLED 121 may be substituted by any course or combination of courses approved by the instructional dean. APLED 121 meets WA state communications requirements.
2 APLED 125 and one credit of embedded Humanities instruction (globalization of electronics) in ELECT 225 Internet of Things are structured to meet Humanities requirement.
3 ELECT 113 and ELECT 123 meet the WA State Computational requirement.
4 Courses offered only in summer but maybe taken any summer during the program.

EMERGENCY MEDICAL TECHNICIAN (EMT): SCC

Emergency Medical Technician
Certificate

All students interested in enrolling for the EMT program should understand that this program has specific requirements students must satisfy to participate. Please review the latest requirements on the Special Application Requirements page. If you have any questions, please reach out to the program faculty and staff on the Contact Us page.

Emergency Medical Technicians (EMT) serve their communities in many diverse roles. Whether it be fire department, ambulance service, Emergency Department Assistant, or law enforcement, EMTs provide time critical assessment, treatment, and transport of the sick and injured in dynamic environments.

The 12 Week–EMT program includes 150 hours of lecture, lab, and clinical rotations both on the ambulance and the Emergency Department (ED). The program meets and exceeds all National Highway Traffic and Safety Administration (NHTSA), Washington State Department of Health (WA DOH), and the National Registry of Emergency Medical Technicians (NREMT) requirements to sit for the national registry exam.

The one quarter EMT program at Spokane Community College prepares students for field and clinical careers in emergency medicine. The utility of the training carries into all walks of life. The EMT program prepares student with skills such as:

- Critical thinking
- Pharmacologic intervention
- Leadership
- Therapeutic and interdisciplinary communication
- Field Operations

First Quarter

EMS	128	Emergency Medical Technician Lecture	10
EMS	129	Emergency Medical Technician	3
		Total	**13**

13 credits are required for the Certificate

ENGINEERING DESIGN TECHNOLOGY: SCC

Engineering Design Technology
Associate in Applied Science

The Engineering Design Technology program prepares students for employment as CAD (Computer Assisted Design) drafters, designers, or engineering technicians in a wide range of industries and settings, including engineering and production teams for large and small manufacturing firms, consultant engineering firms, testing, and research companies.

Students not only gain fluency in engineering graphics and expertise with professional drafting and design tools, but also receive practical, hands–on experience with engineering design projects and the fabrication processes used in industry. Coursework includes a balance of basic skills in math, computer applications, shop practices, and communications, progressing to applied engineering mechanics, project management, mechanical systems design, precision manufacturing, industrial process, and quality control.

The practical application of relevant computer assisted drafting and design skills in several disciplines is emphasized, including mechanical and structural systems manufacturing, electrical and fluid power schematics, fabrication, and piping.

Students may start the Engineering Design Technology program in the fall or winter. A Mechanical Drafting certificate is also available.

This AAS degree can transfer directly to Eastern Washington University (EWU) bachelor's degree program.

First Quarter

APLED	121	Applied Written Communication [1]	4
EDT	101	Introduction to Technology	3
EDT	111	Applied Technical Math I [1]	3
EDT	114	Engineering Graphics/CAD I	5
		Total	**15**

Second Quarter

APLED	123	Leadership Skills for Business and Industry [1]	3
EDT	120	Print Reading	3
EDT	121	Applied Technical Math II [1]	3
EDT	124	Engineering Graphics/CAD II	5
		Total	**14**

Third Quarter

EDT	133	Introduction to Design	5
EDT	137	Applied Technical Math and Physics	3
EDT	141	Shop Practices	2
EDT	142	CAD Solid Modeling/Graphics I	5
		Total	**15**

Fourth Quarter

EDT	243	Building System CAD Applications	3
EDT	244	Structural CAD Applications	3
EDT	246	Manufacturing Processes	2
EDT	248	Applied Engineering Mechanics	4
EDT	252	CAD Solid Modeling/Graphics II	4
		Total	**16**

Fifth Quarter

EDT	242	Mechanical Design Fundamentals	5
EDT	251	Applied Tolerances and GD&T	3
EDT	255	Technical Applications I [2]	4
EDT	256	Mechanical CAD Applications	3
		Total	**15**

Sixth Quarter

APLED	125	Employment Preparation [1]	3
EDT	260	Fabrication and Piping CAD Applications	3
EDT	264	Technical Applications II [2]	4
EDT	265	Applied Precision Measurement	2
EDT	268	Schematics/Advanced CAD	3
		Total	**15**

90 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the department dean.
2 This course may be substituted with an internship or employment in industry.

Mechanical Drafting
Certificate

The Mechanical Drafting certificate program prepares students for employment as CAD (Computer Aided Design) drafters and designers in a wide range of industries and settings, including engineering and production teams for large and small manufacturing firms, consultant engineering firms, testing, and research companies.

Students gain fluency in engineering graphics and expertise with professional drafting and design tools while

focusing on the mechanical drafting field. Drafting projects are also completed emphasizing the engineering design process. Coursework includes a balance of basic skills in math, hand sketching, computer applications, and communications. The practical application of relevant computer assisted drafting and design skills in several disciplines is emphasized.

Students may start the Mechanical Drafting certificate program in the fall or winter.

First Quarter

APLED	121	Applied Written Communication [1]	4
EDT	101	Introduction to Technology	3
EDT	111	Applied Technical Math I [1]	3
EDT	114	Engineering Graphics/CAD I	5
		Total	**15**

Second Quarter

APLED	123	Leadership Skills for Business and Industry [1]	3
EDT	120	Print Reading	3
EDT	121	Applied Technical Math II [1]	3
EDT	124	Engineering Graphics/CAD II	5
		Total	**14**

Third Quarter

EDT	133	Introduction to Design	5
EDT	142	CAD Solid Modeling/Graphics I	5
		Approved EDT electives	3-5
		Total	**13–15**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
EDT	252	CAD Solid Modeling/Graphics II	4
		Approved EDT electives	6-8
		Total	**13–15**

55-59 credits are required for the Certificate

Approved EDT electives

EDT	137	Applied Technical Math and Physics	3
EDT	242	Mechanical Design Fundamentals	5
EDT	243	Building System CAD Applications	3
EDT	244	Structural CAD Applications	3
EDT	246	Manufacturing Processes	2
EDT	248	Applied Engineering Mechanics	4
EDT	256	Mechanical CAD Applications	3
EDT	260	Fabrication and Piping CAD Applications	3
EDT	268	Schematics/Advanced CAD	3

[1] This related education requirement may be met by any course or combination of courses approved by the instructional dean.

ENTREPRENEURSHIP: SCC

Entrepreneurship Certificate

The Entrepreneurship Certificate offers a hands–on approach to training our future business leaders and entrepreneurs. Students from all areas of study will participate in a two–quarter business experience where they will create a business from the ground up. College instructors and local business and community leaders guide students 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 Entrepreneurship instructors. Completion of a small business planning class is highly recommended before entering the program.

First Quarter

MMGT	205	Small Business Planning	5
		Business Electives	10
		Total	**15**

Second Quarter

BUS	206	Entrepreneurship and Business Plan Writing [1]	10
MMGT	250	Professional Sales	5
		Total	**15**

30 credits are required for the Certificate

Business Electives

ACCT	141	QuickBooks	1-5
ACCT	151	College Accounting I	5
ACCT	152	College Accounting II	5
ACCT&	201	Principles of Accounting I	5
BUS	100	Money Management	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	104	Business Mathematics [2]	5
BUS	120	International Business	5
BUS	140	International Marketing	3
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	217	Business Statistics [4]	5
BUS	280	Human Relations in Business	5
CATT	241	Microsoft Project	2.5
CATT	242	Advanced Microsoft Project	2.5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	3-5
ECON	100	Fundamentals of Economics [3]	5
MMGT	100	Supervised Volunteer Experience	1-3
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
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	211	Marketing	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1-18

[1] Completion of MMGT 205 with a 2.0 or higher or permission of instructor.

[2] BUS 103 or proficiency test required.

[3] ECON 100 may be substituted with a higher level ECON course.
[4] MATH 97 or 99 with a 2.0 or better or appropriate placement scores.

ESTHETICIAN: SCC

Advanced Master Esthetics Certificate

Advanced Master esthetics is an expanding scope of practice that offers a variety of employment opportunities. SCC's Advanced Master Esthetics program provides the education and training needed to successfully compete in today's job market. Upon successful completion of the 450–hour program, students are prepared to take the Washington State Examination of Advanced Master Esthetics. After passing this exam, they will be qualified to receive a license for Advanced Master Esthetics.

This program includes advanced training on skin care treatments, massage, operation of advanced facial devices and products. In depth training of chemistry, biochemistry, skin analysis, understanding of laser, light energy and radiofrequency used as it relates to the skin. This course is well balanced with theory and the hands–on applications of everything taught. Students enrolled in the Advanced Master Esthetician program will receive basic training, understanding, and safe use of medical devices with the FDA approval of a "prescriptive device" under the supervision of a physician while the student participates in the internship. In addition, safety and sanitation measures are stressed throughout the program.

Students must complete the program and pass the exit exams to be prepared to take the Washington State examination for Advanced Master Esthetician.

Career Opportunities
Advanced Master Estheticians may be employed by plastic surgeons, dermatologists, and health/med spas. Som potential opportunities consist of a medical office esthetician, a laser specialist, med spa coordinator and trainer, salon owner, and/or a sales representative.

Program Requirements:

- Students must maintain a 2.0 in all professional classes to complete the program and pass exit exams with a minimum score of 2.0 to be prepared to take the Washington State Examination of Advanced Master Esthetician.
- Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination of Advanced Master Esthetician.
- COS 275 is available for students who have not accumulated enough hours to satisfy the Advanced Master Esthetics certificate.

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

First Quarter

COS	221	Advanced Master Esthetics Concepts 1	5
COS	222	Advanced Master Esthetics Applications 1	10
		Total	**15**

Second Quarter

COS	231	Advanced Master Esthetics Concepts 2	5
COS	232	Advanced Master Esthetics Application 2 [1]	6
		Total	**11**

26 credits are required for the Certificate

[1] 1 credit of COS 232 may be substituted with COS 288 with the permission of the instructor. Washington State Licensure requirements allow up to 10% of the students' academic instruction to be met at an off–campus site.

Esthetician Certificate

Students enrolling in the Esthetician Certificate program will receive training in all phases of skin care. Emphasis will be on the use of facial machines; temporary hair removal; various types of facial treatments; face, neck, and hand 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 Esthetics.

Program Requirements:

- Students must maintain a 2.0 in all professional classes to complete the program and pass exit exams with a minimum score of 2.0 to be prepared to take the Washington State licensing examination of esthetics.
- Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination in Esthetics.

Physical Requirements:

- Normal or corrected vision
- Physical dexterity, i.e., small object manipulation
- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to sit or stand for extended periods of time

First Quarter

COS	123	Esthetics Concepts I	5
COS	124	Esthetics Applications I	10
		Total	**15**

Second Quarter

COS	125	Esthetics Concepts II	5
COS	126	Esthetics Applications II	10
		Total	**15**

Third Quarter

COS	127	Advanced Esthetics Concepts	3
COS	135	Esthetics Concepts III	4
COS	136	Esthetics Applications III [1]	5
COS	227	Advanced Esthetics Applications	2
		Total	**14**

44 credits are required for the Certificate

[1] 1 credit of COS 136 may be substituted with COS 288 with the permission of the instructor. Washington State Licensure requirements allow up to 10% of the students' academic instruction to be met at an off–campus site.

EXPANDED FUNCTION DENTAL AUXILIARY: SCC

Expanded Function Dental Auxiliary Certificate

Spokane Community College (SCC) Expanded Functions Dental Auxiliary (EFDA) program is a two–quarter program providing dental assistants with the knowledge and skills required to perform expanded functions under the direct supervision of a licensed dentist. The program is designed to prepare students for an advanced career in the dental field.

This program is specifically designed for the dental assistant 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 (DANB–CDA) examination.

The EFDA program includes a combination of classroom lectures, laboratory exercises, and clinical experiences. Students learn the theory and practice of dental care, including dental anatomy, oral pathology, pharmacology, dental materials, and sterilization and infection control procedures. They also receive specialized training in expanded functions procedures, such as placing and contouring restorative materials (composite, amalgam, and glass ionomer), taking final impressions (both traditional and computer generated), placing and removing temporary restorations, and placing and removing rubber dams.

In addition to technical skills, the EFDA program emphasizes communication, critical thinking, and problem–solving. Students learn to work effectively as members of the oral healthcare team and other support staff. They also learn to communicate effectively with patients, including active listening, clear and concise language, appropriate use of nonverbal communication and showing empathy and inclusion to all in the dental setting.

The EFDA program is designed to provide students with a well–rounded education that includes not only technical skills but also professionalism, ethics, and inclusion. Students learn the importance of ethical and professional behavior, as well as their responsibility to the community. They are encouraged to participate in community service and outreach programs, and to appreciate the scientific method, self–assessment, and lifelong learning for continual professional growth and development.

Upon completion of the EFDA program, graduates are eligible to take the Washington State Restorative (WARE) written examination provided by Dental Assisting National Board (DANB) and the restorative clinical examination provided by Western Regional Examining Board (WREB). Graduates may find employment in a variety of dental settings, including private practices, community clinics, prison facilities and hospital dental departments.

Students must apply to the EFDA program and meet specific entrance criteria, including copy of; required vaccinations, a national background check, bloodborne pathogens certification (7–9 hour course), and CPR certification requirements. Applicants must hold a current and unencumbered dental assistant registration in WA State.

- Students must earn at least a 2.0 in each required course before advancing to the second quarter.
- Students may repeat any EFDA course once, but it must be completed within two years.

First Quarter

EFDA	141	Dental Assisting Review	5
EFDA	142	Dental Assisting Review Lab	2
EFDA	143	Fundamentals of Expanded Function Dental Auxiliary	2
EFDA	144	Amalgam Restorations	2
EFDA	145	Amalgam Restorations Lab	4
		Total	**15**

Second Quarter

EFDA	151	Composite Restorations	2
EFDA	152	Composite Restorations Lab	4
EFDA	153	Dental Impressions	2
EFDA	154	Dental Impressions Lab	2
EFDA	155	Clinical Practice	5
EFDA	156	Board Exam Preparation	1
EFDA	157	Board Exam Preparation Lab	2
		Total	**18**

33 credits are required for the Certificate

FINE ARTS: SFCC

Art
Associate in Fine Arts

The Associate in 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 advisor 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 Washington State University and The Evergreen State College.

Courses

_Program Courses (all required)	40
A List (choose 3-4 credits)	3-4
B List (choose 4 credits)	4
C List (choose 3-4 credits)	3-4
D List (choose 4 credits)	4
E. Studio Art Elective (choose 6-8 credits)	6-8
F. General Education Courses (choose 30 credits) [1]	30
Total	**90–94**

90-94 credits are required for the Associate in Fine Arts

_Program Courses (all required)

ART&	100	Art Appreciation [2]	5
ART	101	Fundamentals of Drawing	4
ART	105	Color and Design	5
ART	106	3-D Design	4
ART	110	Modern Art	5
ART	112	Non-Western Art [3]	5
ART	122	Health and Safety in Art	1
ART	130	Sculpture	4
ART	160	Matting and Framing	1
ART	161	Portfolio I	1
ART	202	Figure Drawing	3
ART	260	Gallery Procedures	1
ART	261	Exhibit	1

A List (choose 3–4 credits)

ART	102	Drawing Composition	4
ART	103	Drawing Techniques	4
ART	201	Experimental Drawing	3

B List (choose 4 credits)

ART	180	Watercolor	4
ART	186	Oil Painting	4
ART	188	Acrylic Painting	4

C List (choose 3–4 credits)

ART	194	Jewelry	3
ART	205	Ceramics	4

D List (choose 4 credits)

ART	189	Printmaking	4
ART	190	Printmaking Relief	4
ART	191	Screen Printing	4
ART	192	Printmaking, Intaglio	4

F. General Education Courses (choose 30 credits) [1]

CMST&	101	Introduction to Communication [5]	5
ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5

1 In addition to CMST&101, ENGL&101, MATH&107, students must complete 5–credits from each of these AA–DTA categories: Lab Science, Non–Art Humanities, and Social Science.

2 ART& 100 may be substituted with ART 108 or 112.

3 ART 112 may be substituted with ART& 100 or ART 109.

4 Any studio art course will serve as an art elective. Consult an advisor or check the college catalog to see which courses are repeatable.

5 CMST& 101 may be substituted with ENGL& 102

Art - 2 Dimensional
Certificate in Fine Arts 2D Track

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 advisor 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 all course requirements with a grade point average of 2.0 or better. The art advisor 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.

Courses

A. Program Courses (all required)	50
B. Painting (choose 8 credits)	8
C. Sculpture/Jewelry/Ceramics (choose 3-4 credits)	3-4
D. Printmaking (choose 8 credits)	8
E. Studio Art Elective (choose 6-8 credits)	6-8
F. Human Relations (choose 5 credits)	5
G. Math/Computation (choose 5 credits)	5
H. Composition/Communication (choose 5 credits)	5
Total	**90–93**

90-93 credits are required for the Certificate in Fine Arts 2D Track

A. Program Courses (all required)

ART&	100	Art Appreciation	5
ART	101	Fundamentals of Drawing	4
ART	102	Drawing Composition	4
ART	103	Drawing Techniques	4
ART	105	Color and Design	5
ART	106	3-D Design	4
ART	110	Modern Art [1]	5
ART	112	Non-Western Art	5
ART	122	Health and Safety in Art	1
ART	147	Advanced Design	3
ART	160	Matting and Framing	1
ART	161	Portfolio I	1
ART	201	Experimental Drawing	3
ART	202	Figure Drawing	3
ART	260	Gallery Procedures	1
ART	261	Exhibit	1

B. Painting (choose 8 credits)

ART	180	Watercolor	4
ART	186	Oil Painting	4
ART	188	Acrylic Painting	4

C. Sculpture/Jewelry/Ceramics (choose 3–4 credits)

ART	130	Sculpture	4
ART	194	Jewelry	3
ART	205	Ceramics	4

D. Printmaking (choose 8 credits)

ART	189	Printmaking	4
ART	190	Printmaking Relief	4
ART	191	Screen Printing	4
ART	192	Printmaking, Intaglio	4

F. Human Relations (choose 5 credits)

PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

G. Math/Computation (choose 5 credits)

BUS	123	Practical Business Math Applications [2]	5
MATH&	107	Math in Society	5

H. Composition/Communication (choose 5 credits)

CMST&	101	Introduction to Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5

1 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.

2 As an alternative to BUS 123, students may complete either of these 5–credit combinations: BUS 110, 111, 112, 113, 114 — or — BUS 122, 113, 114.

Art - 3 Dimensional
Certificate in Fine Arts 3D Track

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 advisor 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 all course requirements with a grade point average of 2.0 or better. The art advisor 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.

Courses

A. Program Courses (all required)	44
B. Sculpture/Jewelry (14 credits required)	14
C. Drawing (choose 4 credits)	4
D. Painting (choose 4 credits)	4
E. Studio Art Elective (choose 9-12 credits)	9-12
F. Human Relations (choose 5 credits)	5
G. Math/Computation (choose 5 credits)	5
H. Composition/Communication (choose 5 credits)	5
Total	**90–93**

90-93 credits are required for the Certificate in Fine Arts 3D Track

A. Program Courses (all required)

ART&	100	Art Appreciation	5
ART	101	Fundamentals of Drawing	4
ART	105	Color and Design	5
ART	106	3-D Design	4
ART	110	Modern Art [1]	5
ART	112	Non-Western Art	5
ART	122	Health and Safety in Art	1
ART	160	Matting and Framing	1
ART	161	Portfolio I	1
ART	202	Figure Drawing	3
ART	205	Ceramics	4
ART	206	Advanced Ceramics	4
ART	260	Gallery Procedures	1
ART	261	Exhibit	1

B. Sculpture/Jewelry (14 credits required)

ART	130	Sculpture	4
ART	194	Jewelry	3

C. Drawing (choose 4 credits)

ART	102	Drawing Composition	4
ART	103	Drawing Techniques	4

D. Painting (choose 4 credits)

ART	180	Watercolor	4
ART	186	Oil Painting	4
ART	188	Acrylic Painting	4

F. Human Relations (choose 5 credits)

PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

G. Math/Computation (choose 5 credits)

BUS	123	Practical Business Math Applications [2]	5
MATH&	107	Math in Society	5

H. Composition/Communication (choose 5 credits)

CMST&	101	Introduction to Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5

1 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.

2 As an alternative to BUS 123, students may complete either of these 5–credit combinations: BUS 110, 111, 112, 113, 114 — or — BUS 122, 113, 114.

FIRE SCIENCE: SCC

Fire Science Technology
Associate in Applied Science

Fire Science is a very well respected career pathway that often requires courage and integrity. Those who start down the path have a great respect for life and wish to help and protect others. The Fire Science Technology program at Spokane Community College is designed to help 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 to prepare students to identify and mitigate emergencies in order to preserve life and property.

Please note that students may start in either quarter one or two in fall depending on enrollment. They will then take quarter one or two in their second quarter of the program before progressing through the remainder of the program. Our Pathway Specialists will work closely with Fire Science students to ensure they have a clear plan when starting the program.

Program Requirements: admittance to the Fire Science Lab classes requires the student's age to be at least 18 or with the instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Fire Science program. A 2.0 grade or better must be maintained in all courses required for a degree.

First Quarter

EMS	128	Emergency Medical Technician Lecture [1]	10
EMS	129	Emergency Medical Technician [1]	3
FS	100	Orientation to Fire Science [2]	2
FS	115	Community Relations	3
		Total	**18**

Second Quarter

ENGL&	101	English Composition I	5
FS	152	Building Construction [3]	3
PE	188	Basic Fitness I	2
		Math Elective [4]	5
		Total	**15**

Third Quarter

CHEM&	110	Chemical Concepts w/Lab	5
CMST&	210	Interpersonal Communication	5
FS	109	Safety, Health, & Wellness for Emergency Services	3
FS	177	Wildland Fire Operations	3
		Total	**16**

Fourth Quarter

FS	211	Introduction to Fire Science	3
FS	212	Fire Science Applications I	6
		FS114 OR FS116	6
		Total	**15**

Fifth Quarter

FS	105	Principles of Hydraulics	3
FS	170	Hazardous Materials I	4
FS	221	Intermediate Fire Science	3
FS	222	Fire Science Applications II	6
FS	233	Professional Development	2
		Total	**18**

Sixth Quarter

FS	160	Fire Tactics	3
FS	231	Advanced Fire Science	3
FS	232	Fire Science Applications III	6
		FS 114 OR FS 116	6
		Total	**18**

100 credits are required for the Associate in Applied Science

FS 114 OR FS 116

FS	114	Emergency Vehicle Operations	6
FS	116	Introduction to Technical Search & Rescue	6

Math Elective

BUS	103	Basic Business Math and Electronic Calculators	5
MATH&	107	Math in Society [5]	5
MATH	201	Introduction to Finite Mathematics [6]	5

1 EMS 128 & 129 may be substituted by EMT Basic or Higher National Registry Certification.
2 First year Fire Science students only. This course is offered fall quarter only.
3 This course is offered winter quarter only.
4 MATH& 107 and MATH 201 require placement, please plan accordingly.
5 MATH& 107 has a prerequisite of MATH 72, 88, 98, or 99 with a 2.0 or better within the last three years or an appropriate placement score.
6 MATH 201 has a prerequisite of MATH 72, 98, or 99 with a 2.0 or better within the last three years or an appropriate placement score.

FRONT OFFICE PROFESSIONAL: SCC

Front Office Professional
Certificate

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.

In order to earn a Front Office Professional certificate, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
CATT	190	Microsoft PowerPoint I	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

Third Quarter

BT	165	Word Processing	5
BT	204	Spreadsheet Design and Analysis	5
BT	272	Business Correspondence [1]	5
		Total	**15**

45 credits are required for the Certificate

1 May be substituted with BT 274.

GRAPHIC DESIGN: SFCC

Graphic Design
Associate in Applied Science

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 creating design, advertising and promotional content. Standards match job requirements that range from technical

production abilities to high–level creative conceptualizing. The program curriculum incorporates industry design problems and projects to demonstrate student learning. Courses in design process and technology interact to deliver the skills necessary to successfully complete specific design projects. The design skills students master are applied to projects in multiple media including print, online, video, animation, motion graphics, and social media platforms.

Guided by 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, students create professional portfolios of their work and complete internships at industry work sites.

The Graphic Design program has a very competitive application process. For more information and to review the application process, please visit the program website at:

http://graphicdesign.sfcc.spokane.edu/about/application-process/

Courses

A. Program Courses (all required)	82
B. Communications Requirement (choose 5 credits)	5
C. Computation Requirement (choose 5 credits)	5
D. Human Relations/Leadership Requirement (choose 5 credits)	5
E. Software Elective (choose 2 credits)	2
Total	**99**

99 credits are required for the Associate in Applied Science

A. Program Courses (all required)

GRDSN	101	Design Process I	4
GRDSN	102	Design Technology I	3
GRDSN	105	Drawing for Graphic Designers	3
GRDSN	109	History of Design	5
GRDSN	111	Design Process II	4
GRDSN	112	Design Technology II	3
GRDSN	121	Design Process III	4
GRDSN	122	Design Technology III	3
GRDSN	151	Typography and Layout	3
GRDSN	156	Illustrator I	2
GRDSN	158	PhotoShop I	2
GRDSN	163	InDesign I	2
GRDSN	181	Web Development I	4
GRDSN	182	Web Development II	3
GRDSN	183	Web Development III	3
GRDSN	201	Design Process IV	4
GRDSN	202	Design Technology IV	3
GRDSN	211	Design Process V	4
GRDSN	212	Design Technology V	3
GRDSN	221	Design Process VI	4
GRDSN	223	Design Portfolio	3
GRDSN	235	Multimedia I	3
GRDSN	236	Multimedia II	3
GRDSN	237	Multimedia III	3
GRDSN	266	Cooperative Education Seminar	1
GRDSN	267	Cooperative Education Work Experience	3

B. Communications Requirement (choose 5 credits) [1]

CMST&	101	Introduction to Communication	5
CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5
JOURN	225	Multimedia Journalism	5

C. Computation Requirement (choose 5 credits) [1]

BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5
MATH	87	Algebra for Math Literacy I	5
MATH	88	Algebra for Math Literacy II	5

D. Human Relations/Leadership Requirement (choose 5 credits) [1]

CMST&	210	Interpersonal Communication	5
CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
HUM	107	Introduction to Cultural Studies	5
MMGT	101	Principles of Management	5
SOC&	101	Intro to Sociology	5
SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

E. Software Elective (choose 2 credits)

GRDSN	164	Illustrator II	2
GRDSN	166	PhotoShop II	2
GRDSN	168	InDesign II	2
GRDSN	175	After Effects I	2
GRDSN	178	After Effects II	2
GRDSN	179	Experience Design I	2
GRDSN	180	Experience Design II	2

[1] Students must choose 5 credits in each of the following areas of related instruction: Communications, Computation and Human Relations/Leadership. A class cannot be used to fulfill more than one area. Students intending on transferring to another institution should consult with a faculty academic advisor prior to selecting these courses.

Graphic Design
Associate in Applied Science–Transfer

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 creating design, advertising and promotional content. Standards match job requirements that range from technical production abilities to high–level creative conceptualizing. The program curriculum incorporates industry design problems and projects to demonstrate student learning. Courses in design process and technology interact to deliver the skills necessary to successfully complete specific design projects. The design skills students master are applied to projects in multiple media including print, online, video, animation, motion graphics, and social media platforms.

Guided by 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, students create professional portfolios of their work and complete internships at industry work sites.

The Graphic Design program has a very competitive application process. For more information and to review the application process, please visit the program website at:

http://graphicdesign.sfcc.spokane.edu/about/application-process/

Eastern Washington University and Spokane Falls have created a working partnership giving graphic design students the best of both worlds in education and career choices.

This partnership allows students to begin at SFCC, earn an AAS–T degree in graphic design and then transfer with junior standing to EWU. Students may earn a Bachelor of Arts in Visual Communication Design. Students must meet all University application deadlines and admission requirements in order to participate in this agreement. Students must have been awarded the AAS–T in Graphic Design degree before they can qualify for the EWU Bachelor of Arts in VCD degree.

Courses

A. Program Courses (all required)	75
B. Software Elective (choose 2 credits)	2
C. General Education Courses (all required)	35
Total	**112**

112 credits are required for the Associate in Applied Science–Transfer

A. Program Courses (all required)

GRDSN	101	Design Process I	4
GRDSN	102	Design Technology I	3
GRDSN	105	Drawing for Graphic Designers	3
GRDSN	109	History of Design	5
GRDSN	111	Design Process II	4
GRDSN	112	Design Technology II	3
GRDSN	121	Design Process III	4
GRDSN	122	Design Technology III	3
GRDSN	151	Typography and Layout	3
GRDSN	156	Illustrator I	2
GRDSN	158	PhotoShop I	2
GRDSN	163	InDesign I	2
GRDSN	181	Web Development I	4
GRDSN	182	Web Development II	3
GRDSN	183	Web Development III	3
GRDSN	201	Design Process IV	4
GRDSN	202	Design Technology IV	3
GRDSN	211	Design Process V	4
GRDSN	212	Design Technology V	3
GRDSN	221	Design Process VI	4
GRDSN	223	Design Portfolio	3
GRDSN	235	Multimedia I	3
GRDSN	236	Multimedia II	3

B. Software Elective (choose 2 credits)

GRDSN	164	Illustrator II	2
GRDSN	166	PhotoShop II	2
GRDSN	168	InDesign II	2
GRDSN	175	After Effects I	2
GRDSN	178	After Effects II	2
GRDSN	179	Experience Design I	2
GRDSN	180	Experience Design II	2

C. General Education Courses (all required)

ART&	100	Art Appreciation	5
ECON	100	Fundamentals of Economics	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5
MATH&	107	Math in Society	5
PHIL&	101	Intro to Philosophy	5
SOC&	101	Intro to Sociology	5

GREENHOUSE/NURSERY: SCC

Greenhouse-Nursery
Certificate

The Greenhouse and Nursery Management program provides students with knowledge and practice in plant production. Graduates of the program are experienced in topics including plant propagation, pest and disease management, greenhouse management, floral design, plant identification, and business management. At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGHRT	103	Introduction to Greenhouse and Nursery Production [2]	3
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
AGHRT	185	AgHort Occupational Preparation [1]	1
		Total	**16**

Second Quarter

AGHRT	111	House Plants [2]	5
AGHRT	116	Green Industry Business Management [2]	5
ENVS	110	Plant Biology [2]	5
		Total	**15**

Third Quarter

AGHRT	105	Horticultural Retail Sales	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	112	Spring Landscape Plant Materials	5
AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	210	Environmental Soil Science	5
		Total	**17**

48 credits are required for the Certificate

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

Greenhouse-Nursery
Associate in Applied Science

The Greenhouse and Nursery Management program provides students with knowledge and practice in plant production. Graduates of the program are experienced in topics including plant propagation, pest and disease management, greenhouse management, floral design, plant identification, and business management. At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied science degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGHRT	103	Introduction to Greenhouse and Nursery Production	3
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials	5
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**14**

Second Quarter

AGHRT	111	House Plants [2]	5
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences	2
ENVS	210	Environmental Soil Science [2]	5
		Total	**17**

Third Quarter

AGHRT	105	Horticultural Retail Sales [2]	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	112	Spring Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
		Total	**17**

Fourth Quarter

AGHRT	106	Greenhouse and Nursery Management I [2]	5
AGHRT	115	Pruning	2
AGHRT	204	Landscape Design 1 [2]	4
AGHRT	211	Floral Design Techniques [2]	5
		Total	**16**

Fifth Quarter

AGHRT	107	Greenhouse and Nursery Management II [2]	5
AGHRT	202	Principles of Irrigation [2]	4
AGHRT	219	Soil Management and Fertility [2]	5
		Total	**14**

Sixth Quarter

AGGEN	151	Shop Skills	4
AGHRT	108	Greenhouse and Nursery Management III [2]	4
AGHRT	195	Practicum [4]	2
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Total	**17**

95 credits are required for the Associate in Applied Science

1 AGHRT 185 and 184 are related education requirements.
2 Related education requirement.
3 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.
4 Practicum may be taken at any time during the second year.

HEALTH INFORMATION MANAGEMENT: SCC

Health Information Management
Associate in Applied Science

The mission of the Health Information Management (HIM) program at Spokane Community College is to prepare students to be self–motivated, critically thinking, and problem–solving learners and future HIM professionals. HIM students will be offered the education and skills necessary to prepare them to work in all areas of the HIM profession. HIM students will understand the importance of contributing to and being ethical members of the profession, while meeting the needs of an ever–changing profession. Students will be encouraged to become lifelong learners to prepare themselves for the continued growth and evolution of the HIM profession. This mission statement is located in the HIM Handbook and is posted in every class in the program.

This AAS degree program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (www.cahiim.org) 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) and HITECH Act regulations. Upon completion of the program, students are eligible to take the Registered Health Information Technician (RHIT) certification exam offered by the American Health Information Management Association (AHIMA).

A 2.5 grade is required for all HIM prefix courses and a 2.0 grade or better must be maintained in all other courses required for a degree. All HIM courses must be completed within five years.

There are options for advanced degrees in Health Information Management. Contact the program director for more information.

Prerequisite/Admission Requirements:

- High School diploma or GED certificate

First Quarter

HIM	103	HIM Theory and Practice	5
HIM	104	Medical Terminology & Anatomy for Coding Classification & Abstraction I [1]	5
HIM	160	Computer Application in HIM	5
		Total	**15**

Second Quarter

BT	272	Business Correspondence [5]	5
HIM	105	Legal Concepts in Health	3
HIM	106	Medical Terminology & Anatomy for Coding Classification & Abstraction II [2]	5
HIM	162	Electronic Health Records	3
SURG	105	Blood-borne Pathogens and HIV/AIDS [4]	1
		Total	**17**

Third Quarter

HED	129	Pathophysiology	5
HIM	209	Health Data Analysis and Display	4
HIM	212	Acute Care Coding	5
		Total	**14**

Fourth Quarter

HIM	167	Current Issues in HIM	4
HIM	203	Clinical Preparation	1
HIM	214	Ambulatory Care Coding	5
HIM	217	Introduction to Applied Statistical Analysis for Healthcare [3]	5
		Total	**15**

Fifth Quarter

HIM	211	Quality Improvement [4]	4
HIM	215	ICD-10 Procedural Coding	4
HIM	222	Data Analytics	5
PHARM	145	Pharmacology	3
		Total	**16**

Sixth Quarter

HIM	213	Clinical Practice	4
HIM	216	Reimbursement Strategies for HIM Professionals	5
HIM	240	HIM Clinical Seminar	4
		Total	**13**

90 credits are required for the Associate in Applied Science

1 HIM 104 may be substituted with BIOL& 241. HIM 104 does not count towards the Associate in Arts degree science requirement and does not satisfy requirements of any allied health program.

2 HIM 106 may be substituted with BIOL& 242. HIM 106 does not count towards the Associate in Arts degree science requirement and does not satisfy requirements of any allied health program.

3 HIM 217 may be substituted with MATH& 146 or BUS 217. This course does not count towards the Associate in Arts degree math requirement and may be subject to college policy for accepting credits with transferring to a bachelor's and/or master's level program.

4 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

5 BT 272 may be substituted with ENGL& 235 or BT 274. ENGL& 235 has a prerequisite requirement.

HEALTH/FITNESS TECHNICIAN: SFCC

Health/Fitness Technician
Associate in Applied Science

The Health/Fitness Technician program is a two–year career technical curriculum offered at Spokane Falls Community College. This program is designed for students 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) are prepared for entry level positions.

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 several of the top rated accredited personal training certifications.

The HFT program provides instruction in professional areas such as exercise physiology, anatomical Kinesiology, sports nutrition, biomechanics, personal training, health screening, and exercise prescription. Related courses include stress management, first aid/ CPR and special considerations in exercise.

Courses

A. Program Courses (all required)	69
B. HFT Suggested Electives (choose at least 6 credits)	6
C. Program Support / Related Instruction Courses (all required)	15
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

BIOL&	160	General Biology w/Lab	5
BIOL&	241	Human A & P 1	5
FMT	106	Anatomical and Physiological Kinesiology	5
FMT	111	Physiology of Exercise	5
FMT	112	Special Considerations in Exercise	3
FMT	115	Leadership Dynamics	3
FMT	119	Principles of Strength Training	5
FMT	204	Health Appraisal and Exercise Prescription	5
FMT	209	Exercise and the Cardiovascular System	3
FMT	225	Personal Training	5
FMT	235	Biomechanics	5
HLTH	104	Stress Management	3
HLTH	174	First Aid	3
HLTH	270	Nutrition for Fitness	3
MMGT	125	Social Media Marketing	5
PE	138	Fundamentals of Resistance Training	2
PE	266	Cooperative Education Seminar	1
PE	267	Cooperative Education Work Experience	3

B. HFT Suggested Electives (choose at least 6 credits) [1]

BIOL&	242	Human A & P 2	5
BUS&	101	Intro to Business	5
CAPPS	185	Applied Social Media I	3
CMST	227	Intercultural Communication	5
PE	177	Beginning Body Conditioning	1
PE	186	Fast Fitness, Beginning	1
PE	187	Cross Training	2
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

C. Program Support / Related Instruction Courses (all required)

CMST&	101	Introduction to Communication	5
ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5

[1] Students planning to transfer to a four year institution should meet with their advisor to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

HEARING INSTRUMENT SPECIALIST: SFCC

Hearing Instrument Specialist
Associate in Applied Science

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/his

Courses

A. Program Courses (all required)	82
B. Computation Course (choose 5 credits)	5
C. English Course (ENGL& 101 required)	5
D. Human Relations/Leadership Course (choose 5 credits)	5
Total	**97**

97 credits are required for the Associate in Applied Science

A. Program Courses (all required)

HIS	101	Basic Hearing Instrument Sciences	4
HIS	104	Hearing Physiology and Anatomy	4
HIS	106	Healthcare and Business Ethics	4
HIS	123	Basic Audiometrics	5
HIS	125	Auditory Disorders	4
HIS	127	Hearing Healthcare Management I	4
HIS	134	Advanced Audiometrics	5
HIS	136	Hearing Instrument Technologies	4
HIS	138	Ear Couplers and Assistive Technologies	5
HIS	201	Hearing Healthcare Management II	4
HIS	205	Introduction to Speech-Language Pathology and Audiology	5
HIS	206	Hearing Instrument Specialist Laboratory I	4
HIS	210	Clinical Methods I	5
HIS	213	Marketing/Sales	4
HIS	215	Hearing Instrument Specialist Laboratory II	5
HIS	222	Clinical Methods II	6
HIS	250	Perspectives on Disabilities	4
HIS	266	Cooperative Education Seminar	1
HIS	267	Cooperative Education Work Experience	5

B. Computation Course (choose 5 credits) [1]

BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

C. English Course (ENGL& 101 required) [1]

ENGL&	101	English Composition I	5

D. Human Relations/Leadership Course (choose 5 credits) [1]

BUS	280	Human Relations in Business	5
CMST&	101	Introduction to Communication	5
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5

[1] Must choose 5 credits in each of the following areas of related instruction: Communications, Computation and Human Relations/Leadership. A class cannot be used to fulfill more than one area. Students intending on transferring to another institution should consult with a faculty academic advisor prior to selecting these courses.

HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION: SCC

Heating, Ventilation, Air Conditioning and Refrigeration
Associate in Applied Science

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.

First Quarter

AIRC	103	Fundamentals of Electricity in HVAC/R [3]	4
AIRC	106	HVAC/R Electrical Applications	6
AIRC	107	HVAC/R Electrical Applications Lab	8
APLED	112	Applied Mathematics [1]	5
		Total	**23**

Second Quarter

AIRC	108	Fundamentals of Heating Systems	6
AIRC	137	Fundamentals of Heating Systems Lab	8
APLED	121	Applied Written Communication [1]	4
		Total	**18**

Third Quarter

AIRC	109	Fundamentals of Refrigeration	5
AIRC	110	Fundamentals of Refrigeration Lab	10
AIRC	136	HVAC/R Safety	1
		Total	**16**

Fourth Quarter

AIRC	203	Fundamentals of Air Conditioning [2]	7
AIRC	204	Fundamentals of Air Conditioning Lab [2]	7
		Total	**14**

Fifth Quarter

AIRC	205	System Performance Testing	5
AIRC	206	System Performance Testing Lab	10
APLED	123	Leadership Skills for Business and Industry	4
		Total	**19**

Sixth Quarter

AIRC	207	System Servicing and Troubleshooting of Heat Pumps	5
AIRC	208	System Servicing and Troubleshooting of Heat Pumps Lab	10
APLED	125	Employment Preparation [1]	3
		Total	**18**

Seventh Quarter

AIRC	262	Fundamentals of Direct Digital Control	5
AIRC	265	Fundamentals of Direct Digital Control Lab	10
		Total	**15**

123 credits are required for the Associate in Applied Science

1. This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2. The fourth quarter is held summer quarter.
3. This course must be taken in a student's first quarter in the program regardless of whether the student starts fall, winter, or spring.

HOSPITALITY, TOURISM & EVENT MANAGEMENT: SCC

Hospitality, Tourism, and Event Management Certificate

Eastern Washington has an increasing number of visitors and conventions, join this fun, exciting, and growing industry. If you are working in the hospitality field, use this certificate to advance your career. The Hospitality, Tourism and Event Management certificate looks at the scope of business operations; in the area of tourism, social media and destination marketing are crucial to creating a successful visitor experience, and event planning studies a range of functions from social gatherings, conferences, special events, and festivals.

The Hospitality, Tourism, and Event Management certificate prepares students to complete their AAS in Business if they choose to stay for two additional quarters to complete the Business AAS core required courses. To see the full program from start to finish, please visit our Associate in Applied Science –Business Hospitality and reach out to a counselor or hospitality faculty for more information.

Students earning the Hospitality, Tourism, and Event Management certificate who plan on also earning the Business AAS degree need to be aware that there is a minimum 2.0 GPA for each Business course: Business (BUS), Accounting (ACCT), Economics (ECON), Management Information Systems MIS, and Management (MMGT).

If you have any questions, please reach out to a counselor or a member of the program faculty.

- ACCT 151 College Accounting I
- BUS 104 Business Mathematics
- ECON 100 Fundamentals of Economics
- MIS 211 Information Technology in Business
- MMGT 100 Supervised Volunteer Experience
- MMGT 101 Principles of Management
- MMGT 211 Marketing

First Quarter

BT	152	College and Career Strategies	3
BUS&	101	Intro to Business [1]	5
CATT	120	Microsoft Word I	2.5
HM	202	Front Office Procedures	5
		Total	**15.5**

Second Quarter

BT	274	Business Writing for the Web	5
BUS	103	Basic Business Math and Electronic Calculators [1]	5
HM	205	Hotel/Restaurant Law	5
		Total	**15**

Third Quarter

CATT	138	Microsoft Excel I	2.5
CMST	227	Intercultural Communication	5
HM	221	Event Management	5
MMGT	125	Social Media Marketing [1]	5
		Total	**17.5**

Fourth Quarter

BUS	280	Human Relations in Business [1]	5
HM	206	Revenue Management	3
HM	220	Tourism and the Hospitality Industry	3
MMGT	231	Human Resource Management [1]	5
		Total	**16**

64 credits are required for the Certificate

Additional Courses Needed for General Business AAS

ACCT	151	College Accounting I [1]	5
BUS	104	Business Mathematics [1]	5
ECON	100	Fundamentals of Economics [1]	5

MIS	211	Information Technology In Business [1]	5
MMGT	100	Supervised Volunteer Experience [1]	3
MMGT	101	Principles of Management [1]	5
MMGT	211	Marketing [1]	5

[1] This course requires a minimum 2.0 GPA for all students planning to add the Business AAS degree.

INFORMATION TECHNOLOGY: SFCC

Information Systems and Technology
Bachelor of Applied Science

The baccalaureate in IST builds on technical skills that entering students bring from their associate degrees (90 credits), adding theoretical knowledge, general education, and advanced technical skills. Successful graduates of the Information Systems and Technology degree will be able to:

- Apply a broad understanding of information systems and technology, creative problem solving techniques and systems thinking to developing organizational solutions;
- Apply core competencies learned to function as a successful professional in the field of Information Systems and Technology;
- Work independently and cooperatively to deliver reports, programs, projects, and other deliverables that document a business organization's information technology requirements;
- Demonstrate proficiency in selecting, implementing, and operating information technology solutions to meet organizational requirements;
- Demonstrate the ability to search, analyze, and synthesize current information and solutions in the rapidly changing information technology profession;
- Base decisions and actions on the legal, ethical, and professional guidelines and practices of the information technology field;
- Engage in continuing professional development through lifelong learning;
- Analyze and apply sustainable business practices;
- Demonstrate the breadth and depth of the educational preparation through the completion of a capstone project.

Within the four years of an applied baccalaureate degree, general education credits must include a minimum of:

- Ten (10) credits of communication skills, including one English composition course, e.g. ENGL& 101;
- Five (5) credits of quantitative/symbolic reasoning skills;
- Ten (10) credits of humanities;
- Ten (10) credits of social sciences;
- Ten (10) credits of natural science, including at least five (5) credits in physical, biological and/or earth sciences, including at least one course with a lab.
- 15 credits of remaining general education courses to achieve the required 60 credits.

Typically, at least 15 general education credits are satisfied at the associate degree level as confirmed by entrance pre–requisites, and the remaining 45 credits are satisfied with courses in quantitative skills, humanities, social sciences and natural sciences. All graduates of the IST baccalaureate program are expected to have core technical knowledge across the information systems and technology space. These following subject areas are required (Associate or higher degree): Unix / Linux, Programming, Ethics & Law in Information Technology, Database Theory and Development, Networking and Security. This knowledge has to be acquired before entering the BAS IST program. General education requirements and courses recommendation are outlined in the following table.

Students must first complete an AA or AAS degree in order to be admitted to a BAS program.

Courses

_AA or AAS Degree	90
A. Program Courses (all required)	45
B. Computation/Math Elective (choose 5 credits)	5
C. General Education / Program Support (35 credits required)	35
D. Science Course (choose 5 credits)	5
Total	**180**

180 credits are required for the Bachelor of Applied Science

A. Program Courses (all required)

BMGT	342	Project Management	5
ISIT	310	Routing and Switching in the Enterprise	5
ISIT	332	Data Warehousing [1]	5
ISIT	344	Virtualization and Storage	5
ISIT	360	Database Application Development [2]	5
ISIT	410	Enterprise Server Administration	5
ISIT	444	Automation/Configuration Management	5
ISIT	470	Systems Analysis and Design	5
ISIT	475	Capstone Internship	5

B. Computation/Math Elective (choose 5 credits)

MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
MATH	300	Mathematical Modeling for Applied Science	5

C. General Education / Program Support (35 credits required)

CMST	227	Intercultural Communication	5
CMST	320	Professional Communication	5
CMST	430	Organizational Communication	5
ECON&	202	Macro Economics	5
PHIL	330	Professional Ethics	5
PSYC	333	Motivation	5

[1] Students who completed the AAS in Software Development at Spokane Community College should substitute ISIT 346 (Network Security) for ISIT 332. See the Program Advisor for details.

[2] Students who completed the AAS in Software Development at Spokane Community College should substitute ISIT 362 (Network Management) for ISIT 360. See the Program Advisor for details.

[3] The BAS degree requires ten (10) credits of natural science, including at least five (5) credits in physical, biological and/or earth sciences, including at least one course with a lab.

Information Technology/Cybersecurity
Associate in Applied Science

This vocational, employable, applied technical degree is intended for students interested in pursuing a high–tech career. Students enrolled in this program are expected to

commit a minimum of three hours each week for each credit enrolled. This program covers topics and skills from entry level information technology to advanced topics such as cybersecurity and operations systems theory. Most courses will have hands–on applied learning labs.

The National Security Agency (NSA) and Department of Homeland Security (DHS) have designated SFCC as an "NSA Center of Academic Excellence in Cyber Defense Education (NSA CAE–CDE)." This designation places IT–AAS students into a very high profile, high demand group. Students and graduates are eligible for priority hiring and exclusive job fairs from federal organizations, potential scholarships, internship opportunities and membership in the NSA–CAE student organization.

Students entering this program should have basic Windows computing skills. Students should also have access to a modern Windows computer and high–speed Internet for online courses.

The degree includes 30 credits spanning different "Areas of Emphasis" in the IT field. Many of the courses in this program include topics and content covered in many industry certifications. These courses are not intended to be a bootcamp style preparation course. Students that complete these courses will be able to prepare to take industry certification exams with a reasonable amount of self–preparation. Industry certifications are not required to complete any course or the program, but students are strongly encouraged to pass a minimum of one industry certification while enrolled in this degree plan.

Completing this program will prepare graduates for many entry level Information Technology jobs. Students interested in advance or specialized careers should consider continuing their studies to pursue a Bachelor of Applied Science in Information Technology Systems or Cyber Security at SFCC.

Courses

A. Program Courses (all required)	40
B. Area of Emphasis (choose 30 credits)[1]	30
C. Program Support / Related Instruction Courses (all required)	15
D. Lab Science (choose 5 credits)	5
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

CS	223	Programming for IT	5
ENGL&	235	Technical Writing [2]	5
IS	101	Planning for Information Technology Students	1
IS	102	IS and Cybersecurity Careers	2
IS	103	Information Technology Fundamentals	5
IS	125	Linux Fundamentals	5
IS	165	Networking Fundamentals	5
IS	222	Secure Cloud Computing	5
IS	244	Network Security I	5
IS	288	Cooperative Education Work Experience (No Seminar)	2

C. Program Support / Related Instruction Courses (all required)

ENGL&	101	English Composition I	5
IS	132	Computer Ethics and Law	5
MATH&	107	Math in Society [3]	5

D. Lab Science (choose 5 credits) [4]

ASTR&	101	Intro to Astronomy	5
BOT	112	Botany: Survey of the Plant Kingdom	5
CHEM&	110	Chemical Concepts w/Lab	5
ENVS&	101	Intro to Env Science	5
PHYS	100	Introductory Physics	5

i. Area of Emphasis: Cyber Defender

IS	141	Cyber Defender 1	5
IS	234	Computer Forensics	5
IS	241	Cyber Defender 2	5
IS	243	Malware Analysis and Exploitation [5]	10
IS	245	Network Security II	5

ii. Area of Emphasis: Cyber Operations

CS	211	C for Programmers	5
IS	215	Operating Systems	5
IS	234	Computer Forensics	5
IS	245	Network Security II	5
MATH&	151	Calculus I	5

iii. Area of Emphasis: Information Systems

IS	106	Fundamental IT Applications	5
IS	210	Internet Programming I [6]	5
IS	228	Internet Servers	5
IS	260	Database Theory	5
IS	262	Network Management	5

iv. Area of Emphasis: Cybersecurity Operation Center Analyst

IS	215	Operating Systems	5
IS	234	Computer Forensics	5
IS	245	Network Security II	5
IS	248	Security Operation Center	5
IS	260	Database Theory	5
IS	262	Network Management	5

v. Extra Course for Area of Emphasis [7]

CMST	227	Intercultural Communication	5
ENGR	190	Electronic Logic	5
IS	166	Secure Mobile Computing	5
MATH&	142	Precalculus II	5

1 Your chosen Area of Emphasis guides your course selection. Information Systems Emphasis: IS106, IS210, IS228. IS260, IS262. Cyber Defender Emphasis: IS141, IS234, IS241, IS243, IS245. Cyber Operations Emphasis: IS215, IS234, IS245, CS211, MATH151. Cybersecurity Operation Center Analyst: IS215, IS234, IS245, IS248, IS260, IS262. All Emphasis Area courses must be completed with a minimum GPA of 2.5. Students may also complete the degree with no area of emphasis with any combination of courses from the area of emphasis lists. See your advisor for details.

2 Students that intend to pursue a Bachelor of Applied Science should substitute CMST&101 (Introduction to Communication), in place of ENGL&235.

3 Students that do not intend to pursue a Bachelor of Applied Science can substitute MATH088. Students intending to pursue a Bachelor of Applied Science should take MATH141 or higher. Students intending to complete the Cyber Operations Area of Emphasis should also be aware that MATH&151 requires a prerequisite of MATH&142.

4 Students may choose a Lab Science course from this list or may choose any other 5–credit lab science course in the CCS catalog.
5 IS243 is a 10–credit course. Depending on course selection, students that take IS243 may end up completing 95 credits to complete this degree.
6 IS210 is a variable credit course. IS students must take IS210 for the full 5 credits.
7 Choose an Extra Course if you need an additional 5 credits to complete 90 total credits.

INTEGRATED BEHAVIORAL HEALTH: SFCC

Integrated Behavioral Health
Bachelor of Applied Science

The Bachelor of Applied Science in Integrated Behavioral Health is designed for students who already hold an associate degree in Addiction Studies or Integrated Community Services, or a related field. Graduates of this program will be able to provide integrated patient and client–centered care–coordination in a variety of settings such as, behavioral health, primary care, re–entry programs, and many others.
Within the four years of an applied baccalaureate degree, general education credits must include a minimum of 50 quarter hours of distribution credits from a minimum of five distribution areas.

- Ten (10) credits of communication skills, including one English composition course, e.g., ENGL& 101. Remaining credits may be an additional composition course or designated writing courses or courses in basic speaking skills (e.g., speech, rhetoric, or debate).
- Five (5) credits of quantitative/symbolic reasoning skills
- Five (5) credits of humanities
- Five (5) credits of social sciences
- Five (5) credits of natural science with a lab component.
- 20 credits of electives from the generally transferable list of courses

Typically, at least 20 general education credits are satisfied at the associate degree level as confirmed by entrance pre–requisites, and the remaining 30 credits are satisfied with courses in quantitative skills, humanities, social sciences, and natural sciences. General education requirements and courses recommendation are outlined in the following table.

Students must first complete an AA or AAS degree in order to be admitted to a BAS program.

Courses

_AA or AAS Degree	90
A. Program Courses (all required)	60
B. General Education / Program Support (all required)	30
Total	**180**

180 credits are required for the Bachelor of Applied Science

A. Program Courses (all required)

IBH	310	Quality of Life and Health Equity	5
IBH	320	Behavioral Health Disorders in Integrated Care	5
IBH	330	Application of Evidence Based Practice	5
IBH	340	Trauma, Grief and Loss	5
IBH	350	Interdisciplinary Teamwork	5
IBH	360	Treatment and Care Planning	5
IBH	410	Integrated Wellness [1]	5
IBH	430	Organizational Management and Leadership in Integrated Care	5
IBH	450	Family and Whole Person Care	5
IBH	460	Research and Evaluation Methodologies [2]	5
IBH	492	Field Placement 1	5
IBH	493	Field Placement 2	5

B. General Education / Program Support (all required)

CMST&	210	Interpersonal Communication [3]	5
ENGL	335	Technical and Professional Writing	5
ENVS&	101	Intro to Env Science	5
HUM&	101	Intro to Humanities	5
PSYC	333	Motivation	5
SOC&	201	Social Problems	5

1 IBH 410 (Integrated Wellness) may be substituted with GEOG 280 (Health and Medical Geography).
2 Prerequisite of MATH& 146 (Statistics) is required before taking IBH 460.
3 Students who have already taken CMST& 210, please take CMST 227.

INTEGRATED COMMUNITY SERVICES: SFCC

Behavioral Health
Certificate

The Integrated Community Services program offers a two–year AAS degree and three certificates. Depending on your goal, you can pursue an associate in applied science (AAS) degree and transfer to a four–year college or seek employment in the social services or behavioral health field after completion of the program.

The ICS certificates are “stackable,” which means that the credits you obtain can be counted toward the AAS–degree in ICS, if desired. Please note that the AAS–degree requires an additional 25 credits of English, Communication, Computation and Psychology, as well as a 5–credit ICS 250 ICS Practicum class. If you have work experience in a related field, you might be able to receive Academic Credit for Prior Learning (ACPL) for the ICS 250 class.

Those who have completed the AAS program degree or certificates will have acquired the necessary skills to work in various public and private social services and behavioral health programs.

Courses

Program Courses (all required)	40
Total	**40**

40 credits are required for the Certificate

Program Courses (all required)

AS	131	Survey of Addictions	5
AS	275	Physiological Actions of Alcohol and Drugs	5
ICS	130	Treatment and Recovery Models	5
ICS	150	Introduction to Gerontology	5
ICS	160	Therapeutic Techniques	5
ICS	180	Child Abuse and Neglect	5
ICS	210	Behavioral Health across the Lifespan	5
ICS	240	Trauma-Informed Services	5

Gerontology
Certificate

The Integrated Community Services program offers a two–year AAS degree and three certificates. Depending on your goal, you can pursue an associate in applied science (AAS) degree and transfer to a four–year college or seek employment in the social services or behavioral health field after completion of the program.

The ICS certificates are “stackable,” which means that the credits you obtain can be counted toward the AAS–degree in ICS, if desired. Please note that the AAS–degree requires an additional 25 credits of English, Communication, Computation and Psychology, as well as a 5–credit ICS 250 ICS Practicum class. If you have work experience in a related field, you might be able to receive Academic Credit for Prior Learning (ACPL) for the ICS 250 class.

Those who have completed the AAS program degree or certificates will have acquired the necessary skills to work in various public and private social services and behavioral health programs.

Courses

Program Courses (all required)	25
Total	**25**

25 credits are required for the Certificate

Program Courses (all required)

ICS	150	Introduction to Gerontology	5
ICS	160	Therapeutic Techniques	5
ICS	200	Introduction to Long-Term Care	5
ICS	210	Behavioral Health across the Lifespan	5
ICS	220	Case Management and Ethics	5

Integrated Community Services
Associate in Applied Science

The Integrated Community Services program leads to an associate in applied science (AAS) degree for those who wish to transfer to a four–year college or seek employment in the social services or behavioral health field 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 and behavioral health programs. The degree also can serve as a transfer degree to four–year colleges. See program advisor for more information.

Courses

A. Program Courses (all required)	75
B. Program Support / Related Instruction Courses (all required)	15
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

CMST&	210	Interpersonal Communication	5
ICS	100	Introduction to Integrated Community Services	5
ICS	120	Multicultural Perspectives in ICS	5
ICS	130	Treatment and Recovery Models	5
ICS	150	Introduction to Gerontology	5
ICS	160	Therapeutic Techniques	5
ICS	170	Social Policy and Advocacy	5
ICS	180	Child Abuse and Neglect [1]	5
ICS	200	Introduction to Long-Term Care	5
ICS	210	Behavioral Health across the Lifespan	5
ICS	220	Case Management and Ethics	5
ICS	230	Restorative Justice and Re-entry	5
ICS	235	Growth and Development Across the Lifespan [2]	5
ICS	240	Trauma-Informed Services	5
ICS	250	ICS Practicum [3]	5

B. Program Support / Related Instruction Courses (all required)

BUS	123	Practical Business Math Applications [4]	5
ENGL&	101	English Composition I	5
PSYC&	100	General Psychology	5

1 ICS 180: May substitute with EDUC& 115 (Child Development) or PSYC& 180 (Human Sexuality).
2 ICS 235: May substitute with PSYC& 200 (Lifespan Psychology), or SOC 273 (Introduction to Social Work).
3 ICS 250: Permission code is required to enroll. Please contact your program advisor.
4 BUS 123: May substitute with MATH& 107 (Math in Society) or MATH& 146 (Introduction to Stats). If you plan on transferring to university, any transfer level math course may be substituted for BUS 123.

Social Services
Certificate

The Integrated Community Services program offers a two–year AAS degree and three certificates. Depending on your goal, you can pursue an associate in applied science (AAS) degree and transfer to a four–year college or seek employment in the social services or behavioral health field after completion of the program.

The ICS certificates are “stackable,” which means that the credits you obtain can be counted toward the AAS–degree in ICS, if desired. Please note that the AAS–degree requires an additional 25 credits of English, Communication, Computation and Psychology, as well as a 5–credit ICS 250 ICS Practicum class. If you have work experience in a related field, you might be able to receive Academic Credit for Prior Learning (ACPL) for the ICS 250 class.

Those who have completed the AAS program degree or certificates will have acquired the necessary skills to work in various public and private social services and behavioral health programs.

Courses

Program Courses (all required)	35
Total	**35**

35 credits are required for the Certificate

Program Courses (all required)

ICS	100	Introduction to Integrated Community Services	5
ICS	120	Multicultural Perspectives in ICS	5
ICS	170	Social Policy and Advocacy	5

ICS	180	Child Abuse and Neglect	5
ICS	220	Case Management and Ethics	5
ICS	230	Restorative Justice and Re-entry	5
ICS	240	Trauma-Informed Services	5

INTERIOR DESIGN: SFCC

Interior Design
Associate in Applied Science

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 work as residential interior designers. The curriculum is composed of both science and art –which enables our graduates to blend creativity with technical elements for a successful foundation of industry skills.

Students who enter the program have two degree options: Associate in Applied Science –Interior Design (AAS) or Associate in Applied Science–Interior Design Transfer (AAS–T) degree.

Students may complete an Associate in Applied Science degree (AAS) in six quarters with an emphasis in residential interior design, and a broad understanding of interior design as a profession. Graduates are qualified to obtain employment within the industry of residential design and construction. Graduates of the program have gone on to work with specialized kitchen and bathroom designers, residential contractors, residential design retail showrooms and suppliers, large–scale residential casework manufacturers, and many have entered the real estate market as investors, realtors, home stagers, and house flippers!

Students who wish to continue their design education at a four–year college or university in a related field (interior design, architecture, landscape architecture, construction management, environmental design, or graphic design), can earn the Associate in Applied Science Transfer degree. This degree has the same design fundamentals and emphasis on residential design as the AAS degree, along with a more complete package of generally transferrable related instruction courses, which will make your transition into a 4–year program much simpler. There are five related instruction courses in the AAS–T degree (ENGL& 101, MATH 107, ART& 100, CMST& 220, and PSYC& 100), and three in the AAS degree (ENGL& 101, BUS 123, and CMST& 220).

Not sure which degree path is right for you? The first quarter curriculum for both degrees is the same, so you can decide after you have a better understanding of the interior design industry.

Courses

A. Program Courses (all required)	75
B. Program Support / Related Instruction Courses (all required)	15
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

ART	101	Fundamentals of Drawing	4
INTDS	106	Sketching/ Rendering	4
INTDS	170	Introduction to Interior Design	3
INTDS	171	Interior Design Studio I	6
INTDS	172	Interior Design Studio II	6
INTDS	173	Drafting for Interior Design	4
INTDS	175	Materials of Interior Design	5
INTDS	176	Interior Design Studio III	6
INTDS	179	History of Interiors I	3
INTDS	180	History of Interiors II	3
INTDS	184	Drawing Communication	4
INTDS	185	Building Systems / Lighting	5
INTDS	268	Design Portfolio	4
INTDS	275	Professional Practices	3
INTDS	280	Textiles for Interiors	3
INTDS	285	Computer Aided Design I	4
INTDS	286	Computer Aided Design II	4
INTDS	294	Adobe for Interior Design	4

B. Program Support / Related Instruction Courses (all required)

BUS	123	Practical Business Math Applications	5
CMST&	220	Public Speaking	5
ENGL&	101	English Composition I	5

Interior Design
Associate in Applied Science–Transfer

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 work as residential interior designers. The curriculum is composed of both science and art –which enables our graduates to blend creativity with technical elements for a successful foundation of industry skills.

Students who enter the program have two degree options: Associate in Applied Science –Interior Design (AAS) or Associate in Applied Science–Interior Design Transfer (AAS–T) degree.

Students may complete an Associate in Applied Science degree (AAS) in six quarters with an emphasis in residential interior design, and a broad understanding of interior design as a profession. Graduates are qualified to obtain employment within the industry of residential design and construction. Graduates of the program have gone on to work with specialized kitchen and bathroom designers, residential contractors, residential design retail showrooms and suppliers, large–scale residential casework manufacturers, and many have entered the real estate market as investors, realtors, home stagers, and house flippers!

Students who wish to continue their design education at a four–year college or university in a related field (interior design, architecture, landscape architecture, construction management, environmental design, or graphic design), can earn the Associate in Applied Science Transfer degree. This degree has the same design fundamentals and emphasis on residential design as the AAS degree, along with a more complete package of generally transferrable related instruction courses, which will make your transition into a 4–year program much simpler. There are five related instruction courses in the AAS–T degree (ENGL& 101, MATH 107, ART& 100, CMST& 220, and PSYC& 100), and three in the AAS degree (ENGL& 101, BUS 123, and CMST& 220).

Not sure which degree path is right for you? The first quarter curriculum for both degrees is the same, so you can decide after you have a better understanding of the interior design industry.

Courses

A. Program Courses (all required)	68
B. General Education / Related Instruction Courses (all required)	25
Total	**93**

93 credits are required for the Associate in Applied Science–Transfer

A. Program Courses (all required)

ART	101	Fundamentals of Drawing	4
INTDS	106	Sketching/ Rendering	4
INTDS	170	Introduction to Interior Design	3
INTDS	171	Interior Design Studio I	6
INTDS	172	Interior Design Studio II	6
INTDS	173	Drafting for Interior Design	4
INTDS	175	Materials of Interior Design	5
INTDS	176	Interior Design Studio III	6
INTDS	179	History of Interiors I	3
INTDS	180	History of Interiors II	3
INTDS	184	Drawing Communication	4
INTDS	185	Building Systems / Lighting	5
INTDS	280	Textiles for Interiors	3
INTDS	285	Computer Aided Design I	4
INTDS	286	Computer Aided Design II	4
INTDS	294	Adobe for Interior Design	4

B. General Education / Related Instruction Courses (all required)

ART&	100	Art Appreciation	5
CMST&	220	Public Speaking	5
ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5
PSYC&	100	General Psychology	5

INTERPRETER TRAINING: SFCC

Interpreter Training Program
Associate in Applied Science–Transfer

The Spokane Falls Community College (SFCC) Interpreter Training Program (ITP) is an innovative program that offers the opportunity to acquire specialized skills needed to launch a career as an interpreter for the Deaf and Hard of Hearing using American Sign Language in the (P–21) Educational Interpreting field. Our goal is to give you access to the current ASL research and the profession of interpreting, practical trainings, mentorship and support that will promote your success as an interpreter for the Deaf and Hard of Hearing.

Currently, Spokane Falls Community College offers the only Interpreter Training Program in Washington state with all courses and coursework available either as, a fully on ground or fully on–line program; or with approval a combination of the two. We strive to provide high quality learning opportunities and best practices of the industry that develop professional and proficient skills in American Sign Language (receptively and expressively), so that each student can become competent in the field of educational interpreting.

Interpreter Training Program AAS–T: is a degree providing comprehensive core Interpreter Training Program content aligned with the Boys Town National Research Hospital (BTNRH) Educational Interpreters Assessment (EIPA) Written portion: Content Knowledge Standards and Performance portion: Skills Development. The critical content coursework within the AAS–T address all the Educational Interpreter competencies required by the State of Washington Professional Educator Standards Board (RCW 28a.410.271) as supported by the Washington State Office of Superintendent of Public Instruction. Approximately 35 coursework credits for this degree/certificate may be transferrable to a four–year institution.

The students, when accepted into the ITP are integral members of a cohort. Each cohort will begin in the fall quarter of each academic year. Students work closely on class assignments, providing peer support within their own cohort. There are opportunities to network with graduates of the ITP, Hearing and Deaf faculty and Deaf community for community–wide events and club projects. As a student, your individual career preparedness is a major priority for our program and faculty. Those who complete our coursework have the potential to provide valuable service and equal access for Deaf and Hard–of–Hearing people in the scope of (P–21) education.

AAS–T PROGRAM COMPETITIVE ADMISSION REQUIREMENTS

- Completion of ASL& 121, ASL& 122 and ASL& 123, 5 credit courses with a minimum grade of 2.0 (3.0 or higher preferred) –OR– Equivalent assessment (Academic Credit for Prior Learning ACPL, which has an exam cost).
- ENGL 101 ready
- MATH& 107 ready
- Completion of PSYC&100 with a passing grade 2.0 or higher.
- Application completed and submitted with transcripts attached.
- Applicants will be assessed and selected for a Fall start cohort by the ITP faculty.

Courses

A. Program Courses (all required) [1]	62
B. American Sign Language (all required) [2]	15
C. Program Support / Related Instruction Courses (all required)	15
Total	**92**

92 credits are required for the Associate in Applied Science–Transfer

A. Program Courses (all required) [1]

ITP	104	Introduction to Audiologic Rehabilitation/Habilitation	4
ITP	231	Theories of Discourse Analysis	3
ITP	232	ASL Linguistic Principles	2
ITP	233	Manually Coded English Systems	5
ITP	241	Deaf Social and Cultural Issues	5
ITP	245	Ethics and Principles in Educational Interpreting	5
ITP	251	Interpreting I	5
ITP	252	Interpreting II	5
ITP	253	Interpreting III	5

ITP	261	Transliteration I	5
ITP	262	Transliteration II	5
ITP	263	Transliteration III	5
ITP	271	Educational Interpreter Seminar	2
ITP	281	Applied Interpreting I	1
ITP	282	Applied Interpreting II	2
ITP	283	Applied Interpreting III	3

B. American Sign Language (all required) [2]

ASL&	221	American Sign Language IV	5
ASL&	222	American Sign Language V	5
ASL&	223	American Sign Language VI	5

C. Program Support / Related Instruction Courses (all required)

ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5
PSYC&	200	Lifespan Psychology [3]	5

[1] To obtain the ITP AAS–T or Certificate, students must pass all Program Courses with a grade of a 2.5 or higher (except ITP 104, 233, 241, 245, and 271; these may be passed with a 2.0 or higher).

[2] To obtain the ITP AAS–T or Certificate, students must pass all 200–level ASL courses with a grade of 2.5 or higher.

[3] PSYC& 100 General Psychology must be taken before PSYC& 200 and completed with a 2.0 or higher or accepted by the PSYC& 200 instructor.

Interpreter Training Program Certificate

The Spokane Falls Community College (SFCC) Interpreter Training Program (ITP) is an innovative program that offers the opportunity to acquire specialized skills needed to launch a career as an interpreter for the Deaf and Hard of Hearing using American Sign Language in the (P–21) Educational Interpreting field. Our goal is to give you access to the current ASL research and the profession of interpreting, practical trainings, mentorship and support that will promote your success as an interpreter for the Deaf and Hard of Hearing.

Currently, Spokane Falls Community College offers the only Interpreter Training Program in Washington state with all courses and coursework available either as, a fully on ground or fully on–line program; or with approval a combination of the two. We strive to provide high quality learning opportunities and best practices of the industry that develop professional and proficient skills in American Sign Language (receptively and expressively), so that each student can become competent in the field of educational interpreting.

Interpreter Training Program Certificate of Completion (for students who have completed an AA, BA/BS or higher degree prior to acceptance into the program): is a certificate providing comprehensive core Interpreter Training Program content aligned with the Boys Town National Research Hospital (BTNRH) Educational Interpreters Assessment (EIPA) Written portion: Content Knowledge Standards and Performance portion: Skills Development. The critical content coursework within the Certificate address all the Educational Interpreter competencies required by the State of Washington Professional Educator Standards Board (RCW 28a.410.271) as supported by the Washington State Office of Superintendent of Public Instruction.

Approximately 35 coursework credits for this degree/ certificate may be transferrable to a four–year institution.

The students, when accepted into the ITP are integral members of a cohort. Each cohort will begin in the fall quarter of each academic year. Students work closely on class assignments, providing peer support within their own cohort. There are opportunities to network with graduates of the ITP, Hearing and Deaf faculty and Deaf community for community–wide events and club projects. As a student, your individual career preparedness is a major priority for our program and faculty. Those who complete our coursework have the potential to provide valuable service and equal access for Deaf and Hard–of–Hearing people in the scope of (P–21) education.

ITP CERTIFICATE OF COMPLETION COMPETITIVE ADMISSION REQUIREMENTS

- Completion of ASL&121, ASL&122 and ASL&123, 5 credit courses with a minimum grade of 2.0 (3.0 or higher preferred) –OR– Equivalent assessment (Academic Credit for Prior Learning ACPL, which has an exam cost).
- ENGL& 101 ready
- MATH& 107 ready
- Completion of PSYC&100 with a passing grade 2.0 or higher.
- Application completed and submitted with transcripts attached.
- Applicants will be assessed and selected for a Fall start cohort by the ITP faculty.

Prerequisites

ASL&	121	Am Sign Language I
ASL&	122	Am Sign Language II
ASL&	123	Am Sign Language III
PSYC&	100	General Psychology

Courses

_AA, BA or BS Degree (completed before admission to program)	0
A. Program Courses (all required) [1]	72
B. American Sign Language (all required)[3]	15
Total	**87**

87 credits are required for the Certificate

A. Program Courses (all required) [1]

EDUC&	115	Child Development	5
ITP	104	Introduction to Audiologic Rehabilitation/Habilitation	4
ITP	231	Theories of Discourse Analysis	3
ITP	232	ASL Linguistic Principles	2
ITP	233	Manually Coded English Systems	5
ITP	241	Deaf Social and Cultural Issues	5
ITP	245	Ethics and Principles in Educational Interpreting	5
ITP	251	Interpreting I	5
ITP	252	Interpreting II	5
ITP	253	Interpreting III	5
ITP	261	Transliteration I	5
ITP	262	Transliteration II	5
ITP	263	Transliteration III	5
ITP	271	Educational Interpreter Seminar	2
ITP	281	Applied Interpreting I	1
ITP	282	Applied Interpreting II	2
ITP	283	Applied Interpreting III	3

PSYC&	200	Lifespan Psychology [2]	5

B. American Sign Language (all required) [3]

ASL&	221	American Sign Language IV	5
ASL&	222	American Sign Language V	5
ASL&	223	American Sign Language VI	5

1 To obtain the ITP AAS–T or Certificate, students must pass all "ITP" Program Courses with a grade of 2.5 or higher (except ITP 104, 233, 241, 245, and 271; these may be passed with a 2.0 or higher).

2 PSYC& 100 is a required prerequisite for this course and must be completed with a 2.0 or higher or accepted by the PSYC& 200 Instructor.

3 To obtain the ITP AAS–T or Certificate, students must pass all 200–level ASL courses with a grade of 2.5 or higher.

INVASIVE CARDIOVASCULAR TECHNOLOGY: SCC

Invasive Cardiovascular Technology
Associate in Applied Science

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). JRC–CVT 6 Pine Knoll Dr. Beverly, MA 01915–1425

- High school diploma or GED certificate required.
- Appropriate math score
- Self–place into English
- 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.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
CMST&	210	Interpersonal Communication [1]
ENGL&	101	English Composition I
MATH&	146	Introduction to Stats
PHYS	100	Introductory Physics

First Quarter

BIOL&	160	General Biology w/Lab	5
ENGL&	101	English Composition I	5
MATH&	146	Introduction to Stats	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1	5
CMST&	210	Interpersonal Communication [1]	5
		Total	**10**

Third Quarter

BIOL&	242	Human A & P 2	5
PHYS	100	Introductory Physics	5
		Total	**10**

Fourth Quarter

HED	109	Human Physiology and Disease	5
ICT	114	Introduction to Cardiac Care	3
ICT	115	Technical Skills - CPR for Health Care Providers	1
ICT	116	Acute Coronary Syndrome	1
ICT	117	Cardiovascular Pharm 1	1
ICT	212	Electrocardiography Lab	1
ICT	213	Electrocardiography	3
		Total	**15**

Fifth Quarter

ICT	124	CV Diagnostic Exams	4
ICT	125	Hemodynamics	2
ICT	126	Technical Skills/Reading Hemodynamics	1
ICT	127	Cardiovascular Pharm 2/Intravenous Therapy	1
ICT	128	Technical Skills/Pharmacology/Intravenous Therapy	1
ICT	129	Basic Life Support Instructor Course	2
		Total	**11**

Sixth Quarter

ICT	134	Cath Lab Procedures	3
ICT	135	Technical Skills Cath Lab Procedures	1
ICT	138	Cardiovascular Physiology	4
ICT	139	Radiation Safety	2
ICT	140	Surgical Asepsis	1
ICT	141	Technical Skills/Surgical Asepsis	1
PHYS	120	Fundamentals of Medical Physics	5
		Total	**17**

Seventh Quarter

ICT	144	Patient Care and Assessment	4
ICT	145	Technical Skills/Cath Lab Boot Camp/Patient Care	4
ICT	146	Cath Lab Clinical I	6
		Total	**14**

Eighth Quarter

ICT	203	Advanced Cardiac Life Support Course	2
ICT	204	Advanced Cardiac Life Support Technical Skills Lab	1
ICT	214	Cardiac Interventions/PCI	3
ICT	215	Interventional Radiology	2
ICT	216	Electrophysiology 1 Introduction to Devices	2
ICT	217	Technical Skills/PCI/EP/Special Equipment	2
ICT	218	Cath Lab Clinical II	5
ICT	219	Cardiopulmonary Pathophysiology	1
		Total	**18**

Ninth Quarter

ICT	224	Advanced Practices/Management	5
ICT	225	Pediatric Cath	1
ICT	226	Statistics and Research	1
ICT	227	Electrophysiology 2 Interventions	2
ICT	228	Technical Skills/Peds/Special Procedures/EP	2
ICT	229	Cath Lab Clinical III	5
		Total	**16**

Tenth Quarter

ICT	234	Board Registry (RCIS) Prep Blackboard	4
ICT	235	Cath Lab Clinical IV	12
		Total	**16**

142 credits are required for the Associate in Applied Science

1 To meet the requirements of the Invasive Cardiovascular Technology program, CMST& 210 should be taken on campus rather than as an online course.

LANDSCAPE MANAGEMENT: SCC

Landscape Management
Certificate

The Landscape Management program provides a study of ornamental plant materials and turf and how they relate to landscape design, construction, installation, maintenance, bidding & estimating, irrigation and arboriculture. The curriculum is built around landscape certified competencies. This program is accredited by the National Association of Landscape Professionals (NALP). At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment	2
AGHRT	104	Principles of Pest Management [1]	5
AGHRT	110	Fall Landscape Plant Materials	5
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**15**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management [1]	5
AGHRT	126	Computer Essentials for Environmental Sciences [2]	2
ENVS	110	Plant Biology [1]	5
		Total	**16**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	206	Landscape Construction	4
ENVS	210	Environmental Soil Science [1]	5
		Total	**15**

46 credits are required for the Certificate

1 Related education requirement.

2 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

Landscape Management
Associate in Applied Science

The Landscape Management program provides a study of ornamental plant materials and turf and how they relate to landscape design, construction, installation, maintenance, bidding & estimating, irrigation and arboriculture. The curriculum is built around landscape certified competencies. This program is accredited by the National Association of Landscape Professionals (NALP). At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment	2
AGHRT	104	Principles of Pest Management	5
AGHRT	110	Fall Landscape Plant Materials	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**17**

Second Quarter

AGGEN	151	Shop Skills	4

AGHRT	116	Green Industry Business Management	5
ENVS	110	Plant Biology	5
		Total	**14**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	206	Landscape Construction	4
ENVS	210	Environmental Soil Science	5
		Total	**15**

Fourth Quarter

AGHRT	115	Pruning	2
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	**16**

Fifth Quarter

AGHRT	202	Principles of Irrigation	4
AGHRT	205	Landscape Design 2	4
AGHRT	219	Soil Management and Fertility	5
AGHRT	228	Arboriculture	5
		Total	**18**

Sixth Quarter

AGHRT	201	Landscape Installation	4
AGHRT	225	Weed Biology and Control	5
AGHRT	226	Turfgrass Management	5
		Total	**14**

94 credits are required for the Associate in Applied Science

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

LIBRARY AND INFORMATION SERVICES: SFCC

Library and Information Services Certificate

Students in the online LiS degree programs (Certificate or AAS):

- can enter the degree programs at the beginning of any quarter (fall, winter, spring),
- can attend part–time or full–time,
- can complete the degree programs fully online as a distance student or take online LMLIB classes and take required electives on–campus,
- can start in the LiS Certificate program and transfer into the LiS AAS at a later date if desired,
- are not required to take placement testing, unless taking English and math transfer classes,
- should follow the typical student schedule/program degree plan in order to graduate within the stated degree timeframe or may utilize course substitutions with approval of LiS program advisor prior to start of quarter.

Courses

A. Program Courses (all required)	38
B. Program Elective (choose 3 credits)	3
C. Practicum/Work Experience (choose 1-3 credits)	1-3
Total	**42–44**

42-44 credits are required for the Certificate

A. Program Courses (all required)

EDUC&	204	Exceptional Child [1]	5
LMLIB	100	Introduction to Library Organizations and Careers	5
LMLIB	115	Library Organization and Collections	5
LMLIB	117	Library Outreach and Services for Diverse Communities	5
LMLIB	125	School Libraries and Media Centers	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	135	Children's Literature and Library Services [2]	5
LMLIB	220	Technical Services and Cataloging [3]	5

B. Program Elective (choose 3 credits) [4]

BT	160	Job Preparation Techniques	3
ECED&	180	Language and Literacy	3
LMLIB	224	Research Topics and Projects in Library Service	3
MMGT	223	Customer Service	3

C. Practicum/Work Experience (choose 1–3 credits) [5]

LMLIB	281	Library Paraprofessional Practicum	1
LMLIB	288	Cooperative Education Work Experience (No Seminar)	1-3

1 EDUC& 204: Students may substitute EDUC& 115 (Child Development) or PSYC& 100 (General Psychology).

2 LMLIB 135: Students may substitute LMLIB 222 (Reference and Information Services).

3 LMLIB 220: Students may substitute LMLIB 116 (Introduction to Circulation Systems and Services).

4 In addition to the program elective courses listed, any course approved by the instructor may be used [with a course substitution form].

5 LMLIB 281: Students take 1 credit in spring quarter, or in another quarter with permission of instructor. Students may also substitute LMLIB 288 (1–3 credits) for LMLIB 281.

Library and Information Services Associate in Applied Science

Students in the online LiS degree programs (Certificate or AAS):

- can enter the degree programs at the beginning of any quarter (fall, winter, spring),
- can attend part–time or full–time,
- can complete the degree programs fully online as a distance student or take online LMLIB classes and take required electives on–campus,
- can start in the LiS Certificate program and transfer into the LiS AAS at a later date if desired,
- are not required to take placement testing, unless taking English and math transfer classes,
- should follow the typical student schedule/program degree plan in order to graduate within the stated degree timeframe or may utilize course substitutions with approval of LiS program advisor prior to start of quarter.

Courses

A. Program Courses (all required)	51
B. Program Electives (choose 11 credits)	11

C. Computer Skills Electives (choose 7 credits)	7
D. Communication Skills Elective (choose 10 credits)	10
E. Computation Skills Elective (choose 5 credits)	5
F. Human Relations / Leadership Skills Elective (choose 5 credits)	5
G. Practicum/Work Experience (choose 1-3 credits)	1-3
Total	**90–92**

90-92 credits are required for the Associate in Applied Science

A. Program Courses (all required)

EDUC&	115	Child Development [1]	5
LMLIB	100	Introduction to Library Organizations and Careers	5
LMLIB	115	Library Organization and Collections	5
LMLIB	116	Circulation Systems and Access Services	5
LMLIB	117	Library Outreach and Services for Diverse Communities	5
LMLIB	125	School Libraries and Media Centers	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	135	Children's Literature and Library Services	5
LMLIB	220	Technical Services and Cataloging	5
LMLIB	222	Reference and Information Services	5
LMLIB	224	Research Topics and Projects in Library Service [2]	3

B. Program Electives (choose 11 credits)

ASL&	121	Am Sign Language I	5
ASL&	122	Am Sign Language II	5
ASL&	123	Am Sign Language III	5
BT	155	Records Information Management	3
CMST	227	Intercultural Communication	5
ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
EDUC	270	Introduction to Developmental Disabilities	5
ENGL&	111	Intro to Literature	5
FILM	141	Introduction to Film	5
FYE	105	Student Success	2
GEOG&	100	Introduction to Geography	5
HIST&	136	US History 1	5
HIST&	137	US History 2	5
HLTH	104	Stress Management	3
HLTH	174	First Aid	3
MMGT	125	Social Media Marketing	5
MMGT	128	Social Media Marketing Campaign	5
PE	100	Fitness for Life	1
SPAN&	121	Spanish I	5
SPAN&	122	Spanish II	5
SPAN&	123	Spanish III	5

C. Computer Skills Electives (choose 7 credits)

BT	101	Keyboarding	5
BT	106	Computing Essentials	5
CAPPS	102	Introduction to Office	1
CAPPS	141	Word I	2
CAPPS	151	Excel I	2
CAPPS	161	Access I	2
CAPPS	171	PowerPoint I	2
CAPPS	180	Outlook	2
MMGT	125	Social Media Marketing	5
MMGT	126	Search Engine Marketing	5
MMGT	128	Social Media Marketing Campaign	5

D. Communication Skills Elective (choose 10 credits)

BT	107	Business Communications	5
BT	272	Business Correspondence	5
CMST&	101	Introduction to Communication	5
ENGL&	101	English Composition I [3]	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5

E. Computation Skills Elective (choose 5 credits) [4]

ACCT	140	QuickBooks	5
BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

F. Human Relations / Leadership Skills Elective (choose 5 credits)

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
MMGT	101	Principles of Management	5
MMGT	231	Human Resource Management	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

G. Practicum/Work Experience (choose 1–3 credits) [5]

LMLIB	281	Library Paraprofessional Practicum	1
LMLIB	288	Cooperative Education Work Experience (No Seminar)	1-3

1 EDUC& 115: Students may substitute EDUC& 204 (Exceptional Child), PSYC& 100 (General Psychology), or PSYC& 200 (Lifespan Psychology).

2 LMLIB 224: Students may substitute BT 160 (Job Preparation Techniques).

3 English placement testing is required to enroll in ENGL&101.

4 Computation Skills Elective: Any online MATH course may be substituted for those in the list. Students intending to transfer should take MATH&107.

5 LMLIB 281: Students take 1 credit in spring quarter, or in another quarter with permission of instructor. Students may also substitute LMLIB 288 (1–3 credits) for LMLIB 281.

MACHINIST / CNC TECHNOLOGY: SCC

CNC Operator Certificate

This two–quarter CNC Operator Certificate program prepares students for employment in the machining industry as an entry–level CNC Operator. Basic manual and CNC machine operation, with emphasis on the safe operation of mills and lathes, is an integral component of this program. Students receive foundational training in both theory and application of machining skills with an introduction to procedures in quality control, CNC set–up, and operation.

Each required course for graduation must be completed with a grade of 2.0 or higher before proceeding to the next quarter.

First Quarter

MACH	120	Print Reading for CNC Operators	2
MACH	121	Machine Theory for CNC Operators	2
MACH	122	Inspection and Quality Control	2
MACH	123	Machining Lab 123	6

		Total	**12**

Second Quarter

MACH	130	CNC Theory for Operators	2
MACH	131	Industrial Safety and First Aid	2
MACH	132	CNC Operator Mathematics	2
MACH	133	Machining Lab II	6
		Total	**12**

24 credits are required for the Certificate

Machinist/CNC Technology Certificate

This four–quarter Machinist/CNC Certificate program prepares students for employment in the machining industry or continuation of the two–year program at SCC. 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 foundational training in both theory and application of machining skills with an introduction to procedures in quality control, CNC programming, set–up, and operation.

Each required course for graduation must be completed with a grade of 2.0 or higher before proceeding to the next quarter.

First Quarter

APLED	112	Applied Mathematics [1]	3
MACH	140	Introductory Print Reading	2
MACH	141	Machine Theory I	2
MACH	142	Shop I	8
		Total	**15**

Second Quarter

MACH	150	Intermediate Print Reading	2
MACH	151	Machine Theory II	2
MACH	152	Shop II	8
MACH	153	Shop Math	2
		Total	**14**

Third Quarter

MACH	160	Advanced Print Reading	2
MACH	162	Shop III	8
MACH	211	CNC Theory I	2
		Total	**12**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
MACH	212	Shop IV	8
MACH	213	GD&T/Quality Control	2
MACH	221	CNC Theory II	2
		Total	**15**

56 credits are required for the Certificate

[1] This related education requirement may be met by any course or combination of courses approved by the department dean.

Machinist/CNC Technology Associate in Applied Science

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 with introduction to CAD/CAM and procedures in quality control.

Each required course for graduation must be completed with a grade of 2.0 or higher before proceeding to the next quarter.

First Quarter

APLED	112	Applied Mathematics [1]	3
MACH	140	Introductory Print Reading	2
MACH	141	Machine Theory I	2
MACH	142	Shop I	10
		Total	**17**

Second Quarter

MACH	150	Intermediate Print Reading	2
MACH	151	Machine Theory II	2
MACH	152	Shop II	10
MACH	153	Shop Math	2
		Total	**16**

Third Quarter

APLED	121	Applied Written Communication [1]	4
MACH	160	Advanced Print Reading	2
MACH	161	Machine Theory III	2
MACH	162	Shop III	10
		Total	**18**

Fourth Quarter

MACH	211	CNC Theory I	2
MACH	212	Shop IV	10
MACH	213	GD&T/Quality Control	2
		Total	**14**

Fifth Quarter

APLED	125	Employment Preparation [1]	3
MACH	221	CNC Theory II	2
MACH	222	Shop V	10
MACH	224	CAD/CAM I	2
		Total	**17**

Sixth Quarter

MACH	231	CNC Theory III [2]	1
MACH	232	Shop VI [2]	10
MACH	234	CAD/CAM II [2]	2
		Total	**13**

95 credits are required for the Associate in Applied Science

[1] This related education requirement may be met by any course or combination of courses approved by the department dean.

[2] MACH 231, 232, & 234 may be substituted with MACH 266 and MACH 267 with instructor or department approval.

MANAGEMENT: SCC

Management
Associate in Applied Science

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. Over 70 percent of the workforce in Spokane is employed in the fields of business, health care and marketing. This creates a big demand for entry–level managers and supervisors.

The management program at SCC is designed to prepare students for these positions. The curriculum incorporates individual hands–on experiences while learning the basic principles of business management. Courses in the AAS degree program include management, business law, project management, computer applications, and human relations.

All students graduating from the AAS degree program must have a minimum grade average of 2.0 on each of the required management, accounting, economic, business, and management information systems courses and a cumulative minimum grade point average on all required courses in the program.

The Project Management/Lean/Six Sigma certificate is embedded in the Management AAS.

First Quarter

BT	152	College and Career Strategies	3
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	280	Human Relations in Business	5
		Total	**13**

Second Quarter

BUS&	101	Intro to Business	5
BUS	104	Business Mathematics	5
ENGL&	101	English Composition I [1]	5
		Total	**15**

Third Quarter

ACCT	151	College Accounting I [2]	5
ECON	100	Fundamentals of Economics [3]	5
MMGT	101	Principles of Management	5
		Total	**15**

Fourth Quarter

CATT	120	Microsoft Word I	2.5
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management [4]	5
MMGT	244	Introduction to Lean Six Sigma [5]	2.5
MMGT	288	Cooperative Education Work Experience (No Seminar) [6]	1
		Total	**16**

Fifth Quarter

BUS&	201	Business Law	5
CATT	241	Microsoft Project	2.5
MMGT	223	Customer Service	3
MMGT	256	Lean Leadership [7]	5
		Total	**15.5**

Sixth Quarter

BT	272	Business Correspondence	5
CATT	138	Microsoft Excel I [8]	2.5
CATT	139	Microsoft Excel II [8]	2.5
MMGT	100	Supervised Volunteer Experience	1
MMGT	211	Marketing	5
		Total	**16**

90.5 credits are required for the Associate in Applied Science

1 ENGL& 101 may be substituted with a course from Group C–AAS Degree Written Communication Elective.
2 ACCT 151 may be substituted with ACCT& 201
3 ECON 100 may be substituted with a higher–level ECON course.
4 MMGT 243 is offered in the fall and winter.
5 MMGT 244 is only offered in the fall.
6 MMGT 288 may be substituted with ACCT 288. 1 credit=55 hours of work experience.
7 MMGT 256 is only offered in the winter
8 CATT 138 and CATT 139 may be substituted with MIS 211.

Management
Certificate

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. Over 70 percent of the workforce in Spokane is employed in the fields of business, health care and marketing. This creates a big demand for entry–level managers and supervisors.

The management program at SCC is designed to prepare students for these positions. The curriculum incorporates individual hands–on experiences while learning the basic principles of business management.

The Management Certificate at SCC is designed to provide students with business, management, and accounting basics with an emphasis on project management skills. Students are prepared 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. All students graduating from the certificate program must have a minimum grade average of 2.0 on each of the required courses in the program.

All students graduating from the certificate program must have a minimum grade average of 2.0 on each of the required courses in the program.

The Project Management/Lean/Six Sigma certificate is embedded in the Management Certificate.

First Quarter

ACCT	151	College Accounting I [1]	5
BUS&	101	Intro to Business	5

BUS	104	Business Mathematics [2]	5
		Total	**15**

Second Quarter

CATT	138	Microsoft Excel I	2.5
CATT	139	Microsoft Excel II	2.5
CATT	241	Microsoft Project [3]	2.5
MMGT	243	Fundamentals of Project Management [3]	5
MMGT	244	Introduction to Lean Six Sigma	2.5
		Total	**15**

Third Quarter

ENGL&	101	English Composition I [4]	5
MMGT	101	Principles of Management	5
MMGT	256	Lean Leadership	5
		Total	**15**

45 credits are required for the Certificate

1 ACCT 151 may be substituted with ACCT& 201.

2 BUS 103 or proficiency test is required.

3 Previous or concurrent enrollment in MMGT 243 and CATT 241 is recommended.

4 ENGL& 101 may be substituted with courses from the Group C–AAS Degree Written Communication Elective.

MANICURIST: SCC

Manicurist
Certificate

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 2.0 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 licensing exam for manicurist.

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.

First Quarter

COS	113	Manicuring Concepts I	5
COS	114	Manicuring Applications I [1]	10
		Total	**15**

Second Quarter

COS	115	Manicuring Concepts II	5
COS	116	Manicuring Applications II [1]	10
COS	119	Advanced Manicuring Concepts	1
COS	129	Advanced Manicuring Applications	2
		Total	**18**

33 credits are required for the Certificate

1 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.

MANUFACTURING: SCC

Industrial and Manufacturing Technology (Colville)
Certificate

Do you live or work near Colville, WA? If you are good with your hands, like to solve problems and have a knack for understanding how things work, consider a career in the manufacturing industry.

As our world's manufacturing facilities become more sophisticated, so must the people that work in them. In this program, you'll learn basic to intermediate processes on new, state of the art manual mills, lathes, a CNC milling machine, and a CNC plasma table in order to complete a variety of projects in numerous industries. Acquire basic to intermediate skills in welding, hydraulics (pressurized oil), pneumatics (compressed air), and electrical maintenance to troubleshoot and maintain equipment in a variety of manufacturing settings. Acquire the skills to read blueprints in order to build or repair parts and equipment. Be trained in the importance of shop and tool safety, and how it is applied in multiple industries.

Whether you want to work in lumber/timber, heating and cooling coils, or boat manufacturing facilities, for a utility company or in a fabrication shop, this program prepares you for many excellent opportunities in the tri–county area and beyond.

This program focuses on the knowledge, skills, and abilities needed to perform the typical duties of Precision Machining and Quality Assurance in the manufacturing industry. The program will prepare students to work with quality control systems management principles, applicable technical standards, testing inspection and reporting procedures; as well as preparing the student to work in small machine shops or manufacturing finns that produce durable goods such as metalworking, lumber, industrial machinery, aircraft parts, equipment, and components for manufactured products.

The Industrial Manufacturing Technology Certificate is designed to give students a well–rounded basic understanding of industrial and manufacturing technologies, enabling them to enter a variety of industries within the Tri–County area.

First Quarter

APLED	112	Applied Mathematics [1]	3
APLED	113	Introduction to Computers for Technology [1]	4
MACH	143	Machine Tools	2
MACH	144	IMT Blueprint 1	1
MACH	146	IMT Shop 1	8
		Total	**18**

Second Quarter

APLED	125	Employment Preparation [1]	3
FLPT	104	Hydraulics/Pneumatic Fundamentals	6
MACH	145	IMT Blueprint 2	1
MACH	147	IMT Shop 2	8
		Total	**18**

Third Quarter

ELMT	102	Electrical Basics	8
FLPT	106	Introduction to Programmable Logic Controls (PLC's)	2
MACH	108	Lean Manufacturing	5
MACH	248	CNC Lab	5
		Total	**20**

56 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the department dean.

MARKETING: SCC

Marketing and Advertising
Associate in Applied Science

The Marketing and Advertising program is designed as a two–year trade school for students who want to specialize in a career in marketing management, advertising, sales, digital marketing, and promotion. Students take core business courses followed by marketing specialty courses such as marketing, retailing, advertising, digital marketing, research, and international business. Students are also required to gain work experience as part of the program. There is the opportunity for teamwork and leadership experience through participation in college DECA, advertising, international management, and marketing organizations.

All students graduating from this program must have a minimum grade of 2.0 on all required courses.

First Quarter

BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
MMGT	211	Marketing	5
		Total	**13**

Second Quarter

BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
CATT	138	Microsoft Excel I	2.5
MMGT	212	Retailing	5
		Total	**15**

Third Quarter

BT	274	Business Writing for the Web [1]	5
BUS	104	Business Mathematics [2]	5
MMGT	218	Fundamentals of Advertising	5
		Total	**15**

Fourth Quarter

BUS	140	International Marketing	3
CIS	112	Web Graphics with Photoshop	3
MMGT	125	Social Media Marketing	5
MMGT	243	Fundamentals of Project Management	5
		Total	**16**

Fifth Quarter

MMGT	205	Small Business Planning	5
MMGT	230	Market Research & Consumer Behavior	5
MMGT	250	Professional Sales	5
		Total	**15**

Sixth Quarter

BUS	206	Entrepreneurship and Business Plan Writing [3]	10
MMGT	100	Supervised Volunteer Experience	1
MMGT	225	Content, Social and Digital Marketing	5
		Total	**16**

90 credits are required for the Associate in Applied Science

Marketing Electives

ACCT	141	QuickBooks	5
BUS	217	Business Statistics	5
BUS	284	Special Business Topics	1-5
CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	3-5
ECON	100	Fundamentals of Economics	5
HM	220	Tourism and the Hospitality Industry	3
HM	221	Event Management	5
MIS	211	Information Technology In Business	5
MMGT	223	Customer Service	3

1 BT 274 can be substituted with ENGL& 101.

2 BUS 104 can be substituted with BUS 103.

3 Two approved electives can be substituted for BUS 206 for 10 credits.

MEATCUTTER: SCC

Meatcutter Apprenticeship
Certificate

The goal of the Meatcutter Apprenticeship Program is to share industry knowledge, skills, and techniques to develop apprentices into highly skilled journey–level meatcutters. Retail meatcutter apprentices learn the production of fresh and frozen meat products, such as beef, pork, lamb, fish, poultry and cured and smoked items. Apprentices also learn merchandising, customer relations and management. A few skills retail meatcutters learn are identifying different cuts of meat, cooking techniques, applications in breaking / cutting, profit maximization and by–product identification. The Meatcutters Apprenticeship is a two–year program which requires 4,000 hours of on–the–job training and 300 hours of classroom instruction.

Apprentices are also college students and receive a certificate for completing 30 college credits from Spokane Community College when they graduate.

Apprentices begin with Introduction to Principles of Meatcutting unless they receive advanced standing allowing them to start at a higher level in the program. This is only determined by the Apprenticeship Committee and will be discussed during the application process.

First Quarter

MEAT	101	Introduction to Principles of Meatcutting	5
		Total	**5**

Second Quarter

MEAT	102	Principles of Meatcutting II	5
		Total	**5**

Third Quarter

MEAT	103	Principles of Meatcutting III	5
		Total	**5**

Fourth Quarter

MEAT	204	Principles of Meatcutting IV	5
		Total	**5**

Fifth Quarter

MEAT	205	Principles of Meatcutting V	5
		Total	**5**

Sixth Quarter

MEAT	206	Principles of Meatcutting VI	5
		Total	**5**

30 credits are required for the Certificate

MEDICAL ASSISTANT: SCC

Medical Assistant
Certificate

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. In the 4th quarter the students will have a 198 hour unpaid clinical externship in a medical office working directly with providers.

Formats for this program are offered as on–campus or online/hybrid.

The Spokane Community College Medical Assistant Certificate is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs 25400 US Highway 19 N Suite 158, Clearwater, FL 33763, 1–(727)–210–2350.

Prerequisites

CIS	110	Introduction to Computer Applications [1]	
ENGL&	101	English Composition I	
MATH	87	Algebra for Math Literacy I [2]	

First Quarter

CIS	110	Introduction to Computer Applications [1]	5
ENGL&	101	English Composition I	5
MATH	87	Algebra for Math Literacy I [2]	5
		Total	**15**

Second Quarter

HED	108	Human Anatomy	5
MA	101	Administrative Medical Assistant I	5
MA	102	Clinical Medical Assistant I	3
MA	107	Basic Medical Assisting	3
		Total	**16**

Third Quarter

HED	125	Medical Terminology	5
MA	111	Administrative Medical Assistant II	3
MA	112	Clinical Medical Assistant II - A	3
MA	113	Clinical Medical Assistant II - B	2
PHARM	115	Mathematics for Pharmacy Technicians	5
		Total	**18**

Fourth Quarter

HIM	120	Medical Assistant Coding and Reimbursement	3
MA	121	Administrative Medical Assistant III	2
MA	122	Clinical Medical Assistant III - A	2
MA	123	Clinical Medical Assistant III - B	3
MA	125	Ambulatory Care Setting Pharmacology	5
MA	126	Introduction to Study of Disease	5
		Total	**20**

Fifth Quarter

MA	131	Administrative Medical Assistant IV	3
MA	132	Clinical Medical Assistant IV - A	3
MA	133	Clinical Medical Assistant IV - B	2
MA	141	Medical Assistant Seminar	1
MA	142	Medical Assistant Externship	6
		Total	**15**

84 credits are required for the Certificate

1 An equivalent course to CIS 110 is acceptable.

2 MATH 71 may be substituted for MATH 87. MATH 71 or 87 must be passed with a 2.0 or higher. Prior to Fall 2022, Math 87 or 91 with a 2.0 or higher is still required.

Medical Assistant
Associate in Applied Science

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. In the 4th quarter the students will have a 198 hour unpaid clinical externship in a medical office working directly with providers.

Formats for this program are offered as on–campus or online/hybrid.

The Spokane Community College Medical Assistant Certificate is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs 25400 US Highway 19 N Suite 158, Clearwater, FL 33763, 1–(727)–210–2350.

Prerequisites

CIS	110	Introduction to Computer Applications [4]	
ENGL&	101	English Composition I	
MATH	87	Algebra for Math Literacy I [5]	

First Quarter

CIS	110	Introduction to Computer Applications [4]	5
ENGL&	101	English Composition I	5
MATH	87	Algebra for Math Literacy I [5]	5
		Total	**15**

Second Quarter

HED	108	Human Anatomy	5
MA	101	Administrative Medical Assistant I	5
MA	102	Clinical Medical Assistant I	3
MA	107	Basic Medical Assisting	3
		Total	**16**

Third Quarter

HED	125	Medical Terminology	5
MA	111	Administrative Medical Assistant II	3
MA	112	Clinical Medical Assistant II - A	3
MA	113	Clinical Medical Assistant II - B	2
PHARM	115	Mathematics for Pharmacy Technicians	5
		Total	**18**

Fourth Quarter

HIM	120	Medical Assistant Coding and Reimbursement	3
MA	121	Administrative Medical Assistant III	2
MA	122	Clinical Medical Assistant III - A	2
MA	123	Clinical Medical Assistant III - B	3
MA	125	Ambulatory Care Setting Pharmacology	5
MA	126	Introduction to Study of Disease	5
		Total	**20**

Fifth Quarter

MA	131	Administrative Medical Assistant IV	3
MA	132	Clinical Medical Assistant IV - A	3
MA	133	Clinical Medical Assistant IV - B	2
MA	141	Medical Assistant Seminar	1
MA	142	Medical Assistant Externship	6
		Total	**15**

Sixth Quarter

MMGT	101	Principles of Management [1]	5
PSYC&	100	General Psychology [1]	5
SOC&	101	Intro to Sociology [2]	5
		Total	**15**

Seventh Quarter

BUS	280	Human Relations in Business [1]	5
CMST	227	Intercultural Communication [1]	5
ENGL&	102	Composition II [1]	5
		Total	**15**

Eighth Quarter

ACCT&	201	Principles of Accounting I [1]	5
CMST&	210	Interpersonal Communication [1]	5
PSYC&	200	Lifespan Psychology [3]	5
		Total	**15**

129 credits are required for the Associate in Applied Science

1 Departmentally approved elective numbered 100 or above may be substituted for courses required for the AAS degree.
2 Departmentally approved elective numbered 100 or above may be substituted for courses required for the AAS degree; may be substituted with SOC& 201.
3 Departmentally approved elective numbered 100 or above may be substituted for courses required for the AAS degree; may be substituted with PSYC 210.
4 An equivalent course to CIS 110 is acceptable.
5 MATH 71 may be substituted for MATH 87. MATH 71 or 87 must be passed with a 2.0 or higher.

MEDICAL OFFICE BILLING AND CODING SPECIALIST: SCC

Medical Office Billing and Coding Specialist
Associate in Applied Science

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 available in medical clinics, medical insurance companies and private physicians' offices.

Suggested keyboarding skills of 40 wpm with six or fewer errors at the completion of BT 106 course.

Students must complete all classes with a 2.5 grade or higher. Students must complete courses in the order listed no matter what quarter the program is started.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BUS	103	Basic Business Math and Electronic Calculators	5
HED	104	Medical Terminology and Anatomy	5

MSEC	108	Medical Office Computing	5
		Total	**15**

Third Quarter

HED	105	Medical Terminology and Anatomy	5
MSEC	121	Medical Office Reception	5
MSEC	123	Medical Office Coding	5
		Total	**15**

Fourth Quarter

MSEC	120	Human Relations/Communications for Medical Office Personnel	5
MSEC	125	Introduction to Medical Practice Management System	4
MSEC	223	Medical Office Coding II	5
		Total	**14**

Fifth Quarter

BT	160	Job Preparation Techniques	3
MSEC	124	Medical Office Insurance Billing	5
MSEC	221	Clinical Coding	5
		Total	**13**

Sixth Quarter

ACCT	151	College Accounting I	5
HIM	215	ICD-10 Procedural Coding	4
MSEC	225	Certified Professional Coder (CPC) Exam Preparation	5
MSEC	284	Medical Internship Seminar	1
MSEC	286	Medical Insurance Billing Internship [1]	3
		Total	**18**

90.5 credits are required for the Associate in Applied Science

[1] Medical Billing and Coding students must have passed all required courses with a 2.5 or higher, and be in the last quarter of the program. Concurrent enrollment in MSEC 284.

MEDICAL OFFICE RECEPTIONIST: SCC

Medical Office Receptionist Certificate

This program prepares individuals for employment in medical offices as medical office receptionists. Spokane is a major regional center for medical care, offering many opportunities for employment. Positions are available in medical clinics, medical insurance companies, private physicians' offices, and many other healthcare settings.

Students completing the Medical Office Reception Certificate also earn the Medical Clerical Certificate.

Completion of two courses (MSEC 120 and MSEC 121) within the Medical Office Reception Certificate degree allow the students to earn and apply for the Peace Studies Certificate at SCC.

Suggested keyboarding skills of 40 wpm with six or fewer errors at the completion of BT 196 and BT 106 courses.

Students must complete all classes with a 2.5 grade or higher. Students must complete courses in the order listed, no matter what quarter the program is started.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
HED	104	Medical Terminology and Anatomy	5
MSEC	108	Medical Office Computing	5
		Total	**14**

Third Quarter

BT	231	Office Procedures	5
HED	105	Medical Terminology and Anatomy	5
MSEC	120	Human Relations/Communications for Medical Office Personnel	5
MSEC	121	Medical Office Reception	5
		Total	**20**

49.5 credits are required for the Certificate

MEDICAL OFFICE SPECIALIST: SCC

Medical Clerical Assistant Certificate

The Clerical Assistant program is a two quarter program where students learn general office skills needed for entry–level office positions. This certificate introduces students to the medical field by covering basic medical terminology. Students develop effective written communication, oral communication, customer service, keyboarding, document formatting, office procedures, telephone, scheduling and calendaring, and job preparation skills.

Students who earn the Medical Office Specialist AAS degree will also earn this certificate because it is embedded in the degree. If you have any questions, please reach out to counseling.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
HED	104	Medical Terminology and Anatomy	5
MSEC	108	Medical Office Computing	5
		Total	**14**

29.5 credits are required for the Certificate

Medical Office Specialist
Associate in Applied Science

This program prepares individuals for employment in medical offices. Spokane is a major regional center for medical care offering many opportunities for employment. Positions are available in medical clinics, medical insurance companies private physician's offices, and many other healthcare settings.

Students completing the Medical Office Specialist degree also earn the Medical Clerical Certificate and the Medical Reception Certificate, which are embedded in the degree. Completion of two courses (MSEC 120 and MSEC 121) within the Medical Office Specialist degree allow students to earn and apply for the Peace Studies Certificate at SCC.

Suggested keyboarding skills of 40 wpm with six or fewer errors at the completion of BT 106 course.

Students must complete all classes with a 2.5 grade or higher. It is highly suggested that students complete classes in the order they are listed on the typical student schedule or speak with a Medical Office instructor before taking courses out of order.

First Quarter

BT	105	Grammar for Business	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Microsoft Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
HED	104	Medical Terminology and Anatomy	5
MSEC	108	Medical Office Computing	5
		Total	**14**

Third Quarter

BT	231	Office Procedures	5
HED	105	Medical Terminology and Anatomy	5
MSEC	120	Human Relations/Communications for Medical Office Personnel	5
MSEC	121	Medical Office Reception	5
		Total	**20**

Fourth Quarter

BUS	103	Basic Business Math and Electronic Calculators	5
MSEC	123	Medical Office Coding	5
MSEC	124	Medical Office Insurance Billing	5
		Total	**15**

Fifth Quarter

BT	160	Job Preparation Techniques	3
MSEC	125	Introduction to Medical Practice Management System	4
MSEC	223	Medical Office Coding II	5
		Total	**12**

Sixth Quarter

ACCT	151	College Accounting I	5
BT	260	Administrative Office Management	5
MSEC	284	Medical Internship Seminar	1
MSEC	287	Medical Specialist Internship [1]	3
		Total	**14**

90.5 credits are required for the Associate in Applied Science

[1] Must have passed all required courses with a 2.5 or higher and be in the las quarter of the program. Concurrent enrollment in MSEC 284.

MUSIC: SFCC

Music
Associate in Fine Arts

The Associate in Fine Arts (AFA) in Music offers a foundation for students pursuing a four year degree in Music, either a Bachelor of Arts (BA) or Bachelor of Music (BM). To complete the AFA, students complete 60 credits of Music and 40 credits of General Education Requirements. Courses satisfying General Education Requirements must include ENGL& 101 (5 credits); MATH& 107 (5 credits); Social Science (5 credits), Non Lab Science (5 credits); and Lab Science (5 credits). The additional 15 General Education Requirements credits will be determined based on your transfer destination and in consultation with an academic advisor in Music.

With the AFA, students transfer with a minimum of 90 credits to colleges and universities SFCC maintains articulation agreements with. University Music Departments may require an audition for admission to Music programs. Through ensemble experience and private applied instruction, the AFA provides students the opportunity to audition successfully. Students must maintain a cumulative GPA of 2.0 or better.

This is a list of all possible courses to earn an AFA in Music. Students should consult an advisor and follow an approved Program Map before enrolling in classes on this list.

Courses

A. Music Courses (All Required)	42
B. Music Ensemble Courses (12 credits)[1]	12
C. Music Private Lessons (6 credits) [2]	6
D. General Education Courses (40 credits) [3]	40
Total	**100**

100 credits are required for the Associate in Fine Arts

A. Music Courses (All Required)

MUSC&	141	Music Theory I	5
MUSC&	142	Music Theory II	5
MUSC&	143	Music Theory III	5
MUSC	176	Beginner Piano Class I	2
MUSC	177	Beginner Piano Class II	2
MUSC	178	Beginner Piano Class III	2
MUSC&	241	Music Theory IV	5
MUSC&	242	Music Theory V	5
MUSC&	243	Music Theory VI	5
MUSC	276	Advanced Piano Class I	2
MUSC	277	Advanced Piano Class II	2
MUSC	278	Advanced Piano Class III	2

B. Music Ensemble Courses (12 credits) [1]

MUSC	127	Chamber Singers	1-3
MUSC	128	Vocal Jazz Ensemble	2
MUSC	134	Small Ensemble	1
MUSC	139	Bass Clef Choir	1-2
MUSC	140	Treble Choir	1-2
MUSC	145	Concert Band	1-3
MUSC	148	Jazz Ensemble	1-3
MUSC	183	Guitar Ensemble	1
MUSC	227	Chamber Singers	1-3
MUSC	228	Vocal Jazz Ensemble	2
MUSC	234	Jazz Combo	1
MUSC	239	Bass Clef Choir	1-2
MUSC	240	Treble Choir	1-2
MUSC	245	Concert Band	1-3
MUSC	248	Jazz Ensemble	1-3

D. General Education Courses (40 credits) [3]

ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5

1 You may earn ensemble credit through participation in Bass Clef Choir (MUSC 139/239), Treble Choir (MUSC 140/240), Chamber Choir (MUSC 127/227), Orchestra (MUSC 115/215), Concert Band (MUSC 145/245), Jazz Ensemble (MUSC 148/248), Small Ensembles (MUSC 134/234), Guitar Ensemble (MUSC 183), and Vocal Jazz Ensemble (MUSC 128/228). To select appropriate ensembles, it is essential you meet with a faculty academic advisor in Music. Not all ensembles transfer to all colleges and universities. So, it is important you select the ensembles transferable to the four year institution you wish to attend.

2 MUSPL 101–103 does not fulfill the private lesson requirement. MUSPL courses taken in the second year must be 200–level (at least 3 credits total), and may include MUSPL 260–264 by substitution.

3 General Education Requirements must include ENGL& 101, MATH& 107 (or higher 5–credit MATH course), a social science, a non–lab science course and a lab science course. Additional General Education Requirements are necessary as determined by your transfer destination. Please speak with a Music Academic Advisor.

NATURAL RESOURCE MANAGEMENT: SCC

Natural Resource Management
Associate in Applied Science

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is nationally accredited by the Society of American Foresters. Two additional options are available: Parks and Recreation or Wildlife Fisheries. The Wildlife program is accredited by the North American Wildlife Technicians Association. The Parks and Recreation option prepares students for park maintenance and/or interpretive positions. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second–year students may remain in the main program which is forestry–based, or they may select one of the two options for an AAS degree which requires a total of 95 credits.

First Quarter

NATRS	112	Natural Resources Mathematical Applications	5
NATRS	120	Basic Computer Applications in Natural Resources	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience I [1]	1
		Total	**13**

Second Quarter

NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	215	Forest Measurements	5
NATRS	226	Natural Resources Occupational Experience II	2
WATER	120	Hydrologic Technical and Field Reports [2]	5
		Total	**17**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	130	Chainsaw Operation, Maintenance and Safety	3
NATRS	201	Forest Protection	5
NATRS	230	Global Positioning Systems	3
		Total	**16**

Fourth Quarter

NATRS	203	Forest Harvesting and Products	5
NATRS	209	Silviculture	5
NATRS	216	Forest Inventory	5
		Total	**15**

Fifth Quarter

ENVS	110	Plant Biology [3]	5
ENVS	207	Wildlife Biology	5
NATRS	221	Applications in Geographic Information Systems	4
NATRS	227	Natural Resources Occupational Experience III [2]	2
		Total	**16**

Sixth Quarter

ENVS	208	Outdoor Recreation and Interpretation	3
ENVS	210	Environmental Soil Science	5
ENVS	247	Fire, Ecology, & Ecosystems of the Pacific Northwest	5
NATRS	205	Surveying	5
		Total	**18**

95 credits are required for the Associate in Applied Science

1 A 400–hour internship, either paid or volunteer, must have been completed before registering for this course.

2 May be substituted with ENGL& 101 or an approved written communication course 100 level or higher.

3 May be substituted with BIOL& 160.

Natural Resources Technologies in Geographic Information Systems
Certificate

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is accredited by the Society of American Foresters. Two additional options are available:

Parks and Recreation or Wildlife Fisheries. The Parks and Recreation option prepares students for park maintenance and/or interpretive positions. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second year: Students may remain in the main program which is forestry–based, or they may select one of the two options for an AAS degree which requires a total of 105 credits.

First Quarter

NATRS	112	Natural Resources Mathematical Applications [3]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
		Natural Resources Electives [1]	3
		Total	**10**

Second Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources [4]	5
NATRS	230	Global Positioning Systems	3
		Natural Special Project Electives [2]	3
		Total	**11**

Third Quarter

NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	221	Applications in Geographic Information Systems	4
		Total	**9**

30 credits are required for the Certificate

Natural Resources Electives

ENVS	207	Wildlife Biology	5
ENVS	217	Wildlife Techniques [6]	4
ENVS	226	Fisheries Techniques [7]	4
NATRS	216	Forest Inventory [8]	5

Natural Special Project Electives

NATRS	232	Field Projects in Natural Resources	3

1 Students may select courses from the Natural Resource Elective's group for a minimum of three credits.
2 Students must be enrolled in the Natural Resources Management, Parks and Recreation option, or the Wildlife/Fisheries option program.
3 This related education requirement may be met by any course or combination of courses approved by the instructional dean. NATRS 112 must be passed with a 2.0 or higher grade.
4 NATRS 220 contains a prerequisite of NATRS 120 or permission of instructor. Student must be enrolled in the Natural Resource Management, Parks and Recreation option, or the Wildlife/Fisheries option program.
5 Student must be enrolled in the Natural Resource Management or the Parks and Recreation option program.
6 ENVS 217 contains a prerequisite of NATRS 120, 122, ENVS 207 or permission of instructor. Student must be enrolled in the Wildlife/Fisheries option program.
7 ENVS 226 contains a prerequisite which requires enrollment in the Wildlife/Fisheries option program or permission of instructor.
8 NATRS 216 contains a prerequisite of NATRS 215, 122 or permission of instructor and enrollment in the Natural Resource management program.

Parks and Recreation
Associate in Applied Science

The associate in applied science degree in Natural Resource Management: Parks & Recreation option prepares students for park maintenance and/or interpretive positions.

All students must complete an internship of at least 400 hours to complete the degree. Second–year students may remain in the main program which is forestry–based, or they may select one of the two options for an AAS degree which requires a total of 95 credits.

First Quarter

NATRS	112	Natural Resources Mathematical Applications	5
NATRS	120	Basic Computer Applications in Natural Resources	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience I [1]	1
		Total	**13**

Second Quarter

NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	215	Forest Measurements	5
NATRS	226	Natural Resources Occupational Experience II [1]	2
WATER	120	Hydrologic Technical and Field Reports [2]	5
		Total	**17**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	130	Chainsaw Operation, Maintenance and Safety	3
NATRS	201	Forest Protection	5
NATRS	230	Global Positioning Systems	3
		Total	**16**

Fourth Quarter

AGGEN	156	Equipment Operation and Maintenance	2
CMST&	101	Introduction to Communication	5
NATRS	209	Silviculture	5
		Electives	5
		Total	**17**

Fifth Quarter

ENVS	104	Environmental Conservation	5
ENVS	207	Wildlife Biology	5
NATRS	227	Natural Resources Occupational Experience III [1]	2
		Electives	5
		Total	**17**

Sixth Quarter

AGGEN	151	Shop Skills	4
ENVS	208	Outdoor Recreation and Interpretation	3
ENVS	237	Bird Identification	3
		Electives	5
		Total	**15**

95 credits are required for the Associate in Applied Science

Electives

AGHRT	228	Arboriculture	5
ENVS	110	Plant Biology [3]	5
ENVS	210	Environmental Soil Science	5
ENVS	247	Fire, Ecology, & Ecosystems of the Pacific Northwest	5

1 A 400–hour internship, either paid or volunteer, must have been completed before registering for this course.
2 May be substituted with ENGL& 101 or an approved written communication course 100 level or higher.
3 May be substituted with BIOL& 160.

Wildlife/Fisheries
Associate in Applied Science

The associate in applied science degree in Natural Resource Management: Wildlife option is accredited by the North American Wildlife Technicians Association. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second–year students may remain in the main program which is forestry–based, or they may select one of the two options for an AAS degree which requires a total of 95 credits.

First Quarter

ENVS	207	Wildlife Biology	5
NATRS	112	Natural Resources Mathematical Applications	5
NATRS	120	Basic Computer Applications in Natural Resources	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience I [1]	1
		Total	**18**

Second Quarter

NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	215	Forest Measurements	5
NATRS	226	Natural Resources Occupational Experience II [1]	2
WATER	120	Hydrologic Technical and Field Reports [2]	5
		Total	**17**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	130	Chainsaw Operation, Maintenance and Safety	3
NATRS	201	Forest Protection	5
NATRS	230	Global Positioning Systems	3
		Total	**16**

Fourth Quarter

ENVS	216	Fisheries Ecology	5
ENVS	226	Fisheries Techniques	4
NATRS	209	Silviculture	5
		Total	**14**

Fifth Quarter

ENVS	227	Advanced Wildlife Biology	4
NATRS	221	Applications in Geographic Information Systems	4
NATRS	227	Natural Resources Occupational Experience III [1]	2
		Elective	5
		Total	**15**

Sixth Quarter

ENVS	217	Wildlife Techniques	4
ENVS	237	Bird Identification	3
WATER	205	Differential Leveling	3
		Elective	5
		Total	**15**

95 credits are required for the Associate in Applied Science

Elective

ENVS	110	Plant Biology	5
ENVS	210	Environmental Soil Science	5
ENVS	247	Fire, Ecology, & Ecosystems of the Pacific Northwest	5

1 A 400 hour internship, either paid or volunteer, must have been completed before registering for this course.
2 May be substituted with ENGL& 101 or an approved written communication course 100 level or higher.

NURSING: SCC

Nursing
Associate in Nursing Direct Transfer Agreement/Major Related Program

Our ACEN–accredited nursing program prepares you for licensure as a registered nurse in a variety of health care settings. Your training will include nursing courses, hands–on practice in the nursing simulation laboratory, computer–assisted instruction and supervised clinical experiences. As a graduate of the program, you could enter a Bachelor of Science in nursing program as a junior or senior at a four–year university or sit for the NECLEX–RN exam to go straight to work. You can learn more about the program below or in the Nursing Program Handbook.

SCC nursing faculty members believe there are varying levels of nursing practice that provide unique contributions to meet the health care needs of society. The curriculum allows each student to move from one level to the next including advancing to a Bachelor of Science, master's, or doctorate in nursing after graduation if the student desires.

In the nursing classes, the students have both supervised clinical experience and classroom theory. Students study introduction to nursing, medical–surgical nursing including gerontology and pediatrics, prenatal nursing, mental health nursing, and beginning management/leadership concepts. Required clinical rotation hours vary and may include early morning (6:00 AM), evening, and weekend hours one or two days per week.

A minimum cumulative GPA of 3.0 with a minimum GPA of 2.5 in each support course is required to move to the competitive scoring process. Only the courses required in the first four quarters will be considered in the GPA calculation.

Mission Statement
SCC's Nursing Program meets community needs by preparing graduates for entry–level practice in a variety of health care settings. The Nursing Program offers quality, student–centered education, emphasizing critical thinking skills, clinical reasoning, patient–centered care, and lifelong learning. Nursing students are provided with the opportunity to succeed in a supported environment that enhances individual and professional growth through academic, personal and professional development. Nursing graduates are well prepared to transfer their nursing degree credits in pursuit of their next step in their educational plan. The nursing program reflects SCC's Mission in its support of a diverse community of adult learners.

This program is best suited for students who:

- Want to complete their Registered Nursing requirements and leave ready for licensure to enter the workforce after graduation.
- Want to transfer to a four–year institution to complete advanced degrees like a bachelor's or master's degree in nursing **upon completion of their RN**.
- Please visit our Detailed Information page for more information.

Prerequisites

BIOL&	160	General Biology w/Lab [1]	
BIOL&	241	Human A & P 1 [1]	
BIOL&	242	Human A & P 2 [1]	
BIOL&	260	Microbiology [1]	
CHEM&	121	Intro to Chemistry: w/Lab [6]	
CMST	227	Intercultural Communication	
ENGL&	101	English Composition I	
ENGL&	102	Composition II	
HUM&	101	Intro to Humanities [5]	
MATH&	146	Introduction to Stats [1]	
PSYC&	100	General Psychology	
PSYC&	200	Lifespan Psychology	

First Quarter

BIOL&	160	General Biology w/Lab [1]	5
ENGL&	101	English Composition I	5
MATH&	146	Introduction to Stats [1]	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1 [1]	5
BIOL&	260	Microbiology [1]	5
PSYC&	100	General Psychology	5
		Total	**15**

Third Quarter

BIOL&	242	Human A & P 2 [1]	5
CHEM&	121	Intro to Chemistry: w/Lab [6]	5
PSYC&	200	Lifespan Psychology	5
		Total	**15**

Fourth Quarter

CMST	227	Intercultural Communication	5
ENGL&	102	Composition II	5
HUM&	101	Intro to Humanities [5]	5
		Total	**15**

Fifth Quarter

NURS	101	Foundational Principles in Nursing	3
NURS	102	Application of Foundational Principles in Nursing	5
		NUTR 251 OR NUTR& 101	5
		Total	**13**

Sixth Quarter

NURS	104	Nursing Care of Patients Across the Lifespan	3
NURS	105	Application of Nursing Care of Patients Across the Lifespan	5
NURS	106	PSYC 106/Psychosocial Issues in Healthcare I [2]	2
NURS	110	Pharmacology in Nursing Practice	2
		Total	**12**

Seventh Quarter

NURS	113	PSYC 113/Psychosocial Issues in Healthcare II [3]	3
NURS	133	Care of the Developing Family	3
NURS	134	Application of Care of the Developing Family	2
NURS	138	Care of the Mental Health Patient	3
NURS	139	Application of Care of the Mental Health Patient	2
		Total	**13**

Eighth Quarter

NURS	181	Nursing Care of the Acute Patient	4
NURS	182	Application of Nursing Care of the Acute Patient	5
NURS	202	PHIL 202/Ethics and Policy in Healthcare I [4]	3
		Total	**12**

Ninth Quarter

NURS	205	Nursing Care of the Critically Ill Patient	5
NURS	206	Application of Nursing Care of the Critically Ill Patient	6
NURS	207	PHIL 207/Ethics and Policy in Healthcare II [4]	2
		Total	**13**

Tenth Quarter

NURS	208	Capstone Experience in Nursing	6
NURS	209	Leadership Principles in Nursing Care	4
NURS	210	Simulation in Nursing Practices	2
		Total	**12**

135 credits are required for the Associate in Nursing Direct Transfer Agreement/Major Related Program

NUTR 251 OR NUTR& 101

NUTR&	101	Nutrition	5
NUTR	251	Nutrition in Healthcare	5

1 This required support course must have been completed within the last ten years with a 2.5 grade or higher. Because of the number of applicants for this program, the completion of all required support courses does not ensure the admission into the program at the next available quarter.

2 This nursing course is also considered part of the 15 credits required in the Social Sciences discipline. This course is cross–listed with PSYC 106.

3 This nursing course is also considered part of the 15 credits required in the Social Sciences discipline. This course is cross–listed with PSYC 113.

4 This nursing course is also considered part of the 15 credits required in the Humanities discipline. This course is cross–listed with PHIL 202 and PHIL 207.
5 This course may be substituted with other courses from the Humanities distribution area of the AA/DTA (except Philosophy).
6 This required support course must have been completed within the last ten years with a 2.5 grade or higher. This course may be substituted with a higher level Chemistry class.

Nursing Assistant Certified Certificate

Nursing assistants care for patients in hospitals, long–term care facilities, hospice, and in the home. These courses introduce students to this fulfilling career, covering basic nursing assistant skills, patient and family relationships, health care teams and legal issues. CPR and HIV/AIDS training is included in this program.

Students will be prepared to provide direct patient care in a variety of health care settings. The Nursing Assistant Certified has direct contact with the patients and residents in these settings in the process of providing care for their basic daily needs. Students learn to recognize the patient's physical, social, and emotional needs and to care for these patients and meet their needs in a caring manner.

In a single quarter, students are well prepared to sit for the Nursing Assistant Certified exam and once certified, our students are free to work for any organization accepting a NAC certification. Unlike students graduating from many private programs, our students are not required to work for any specific employers after graduation, giving them the freedom to build a satisfying career in healthcare immediately after graduation and certification.

This program is best suited for students who:

- Are looking for a way to increase their skills and pay in entry level healthcare jobs.
- Want flexibility. Our students can work for any employer they are not committed to an employer who provided their training and certification.
- Can commit to a single quarter of full–time classes.
- Please visit our Detailed Information page for more information.

First Quarter

NURS	108	Nursing Assistant Certified Theory [1]	5
NURS	109	Nursing Assistant Skills Lab and Clinical	4
		Total	**9**

9 credits are required for the Certificate

1 NURS 108 and 109 must be taken concurrently. Students must receive 80% or better in NURS 108 to progress to the clinical portion of NURS 109.

Practical Nursing Certificate

The Practical Nursing Program at SCC will open doors to an exciting career in nursing in under a year! The program offers hands–on experience in the lab, simulation, and clinical settings as well as interactive classroom instruction. Local facilities are offering positions in hospitals, extended care, home health, clinics, mental health, and many more. This program will give you the training you need to not only get hired but enter the workforce feeling excited and confident.

The demand for Licensed Practical Nurses is projected to grow 5% from 2022–2032 and local employers have been instrumental in the development of this program. SCC Students can expect a robust curriculum developed in partnership with our Nursing program and faculty. Students will be prepared to sit for the NCLEX–PN exam.

All support courses must be completed prior to acceptance but ENGL& 101 and MATH& 146 may be in progress during the quarter students apply to the program. Before students will be accepted and start the program, they must complete all support courses with a 2.5 GPA or better.

There is an application process and requirements students must satisfy to be eligible. Please consult the Program Requirements and Application Requirements pages of this website in addition to meeting with a counselor for program specific advising.

This program is best suited for students who:

- Want to enter the workforce in healthcare with more advanced skills than a Certified Nursing Assistant and are building a career in healthcare.
- Are interested in working in the field to gain additional experience before starting an RN program.
- Students who would like to go to work in the nursing field with less time commitment than an RN program.
- Please visit our Detailed Information page for more information.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
ENGL&	101	English Composition I
MATH&	146	Introduction to Stats
PSYC&	100	General Psychology

First Quarter

BIOL&	160	General Biology w/Lab [1]	5
ENGL&	101	English Composition I	5
		Math based on placement [2]	0
		Total	**10**

Second Quarter

BIOL&	241	Human A & P 1 [1]	5
PSYC&	100	General Psychology	5
		Math based on placement [2]	0
		Total	**10**

Third Quarter

BIOL&	242	Human A & P 2 [1]	5
MATH&	146	Introduction to Stats [1]	5
		Total	**10**

Fourth Quarter

PN	101	Fundamentals in Nursing	3
PN	102	Application of Fundamentals in Nursing	5
PSYC&	200	Lifespan Psychology [3]	5
		Total	**13**

Fifth Quarter

NURS	106	PSYC 106/Psychosocial Issues in Healthcare I [3]	2
PN	110	Care of the Family and Mental Health Patient	6
PN	111	Application of Care of the Family and Mental Health Patient	4
		Total	**12**

Sixth Quarter

NURS	113	PSYC 113/Psychosocial Issues in Healthcare II [3]	3
PN	120	Care of the Medical/Surgical Patient	4
PN	121	Application of Care of the Medical/Surgical Patient	5
		Total	**12**

Seventh Quarter

NURS	202	PHIL 202/Ethics and Policy in Healthcare I [3]	3
PN	130	Practical Nursing Capstone	5
PN	131	Transition to Practice	4
		Total	**12**

79 credits are required for the Certificate

Math based on placement

MATH	87	Algebra for Math Literacy I	5
MATH	88	Algebra for Math Literacy II	5

1 This required support course must have been completed in the last ten years with a 2.5 grade or higher.

2 This class is below college level. The credits will not count toward the certificate, but they will be used to calculate Financial Aid and the grade earned affects GPA. Please reach out to a counselor with any questions.

3 LPN students must register for the appropriate section of this course. Please contact the program director or counseling with questions.

Pre-Nursing
Associate in pre–Nursing Direct Transfer Agreement/Major Related Program

The Pre–Nursing degree prepares students to transfer into a pre–licensure Bachelor of Science in Nursing (BSN) program at participating public and private baccalaureate institutions. It is recommended that students contact their transfer institution as early as possible to identify admission requirements including GPA requirements, and specific courses when options are provided. The Pre–Nursing DTA/MRP is not accredited and does not meet the requirements for licensure in the state of Washington.

Admission to all BSN programs is highly competitive and completion of the Pre–Nursing DTA/MRP does not guarantee placement into any BSN program. If students find themselves on a waitlist for the BSN program of their choice, they should consider applying to a different program or for a general degree at the same institution. Students must apply to graduate from SCC upon completion of the Pre–Nursing DTA/MRP before transferring.

Students who wish to sit for the NCLEX RN exam after completing an associate degree should inquire about the accredited Nursing DTA/MRP which meets licensure requirements in the state of Washington. It does not apply to the Nursing DTA/MRP which prepares students for Registered Nurse (RN) to Bachelor of Science in Nursing programs. The Pre–Nursing degree prepares students to transfer into a pre–licensure Bachelor of Science in Nursing (BSN) program at participating public and private baccalaureate institutions. It is recommended that students contact their transfer institution as early as possible to identify admission requirements including GPA requirements, and specific courses when options are provided. **The Pre–Nursing DTA/MRP is not accredited and does not meet the requirements for licensure in the state of Washington.**

It is highly recommended that all students seek academic advising from counselors to ensure that they meet all the requirements for SCC and the transfer institution's admission requirements. Students can create a customized plan outlining required courses for transfer programs and monitor their progress using ctcLink mobile.

This program is best suited for students who:

- Want to transfer prior to completing their nursing program and earning their RN
- Want to transfer to pre–licensure bachelor of science in nursing program
- Please visit our Detailed Information page for more information

First Quarter

BIOL&	160	General Biology w/Lab	5
ENGL&	101	English Composition I	5
MATH&	146	Introduction to Stats	5
		Total	**15**

Second Quarter

BIOL&	260	Microbiology	5
CMST	227	Intercultural Communication	5
ENGL&	102	Composition II	5
		Total	**15**

Third Quarter

BIOL&	241	Human A & P 1	5
PSYC&	100	General Psychology	5
		Humanities Group B or C Electives [1]	5
		Total	**15**

Fourth Quarter

BIOL&	242	Human A & P 2	5
CHEM&	121	Intro to Chemistry: w/Lab	5
PSYC&	200	Lifespan Psychology	5
		Total	**15**

Fifth Quarter

CHEM&	122	Intro to Organic Chem: w/Lab	5
NUTR	251	Nutrition in Healthcare	5
		Sociology Electives	5
		Total	**15**

Sixth Quarter

CHEM&	123	Intro to Biochemistry: w/Lab	5
		Electives [2]	5
		Humanities Electives [3]	5
		Total	**15**

90 credits are required for the Associate in pre–Nursing Direct Transfer Agreement/Major Related Program

Electives [2]

HLTH	174	First Aid [4]	3
SOC&	101	Intro to Sociology	5
SOC&	201	Social Problems	5

Sociology Electives

SOC&	101	Intro to Sociology	5
SOC&	201	Social Problems	5

1 Choose a writing–intensive course

2 Plan electives as appropriate for intended transfer university in consultation with an advisor or counselor. PE activity courses are limited to a maximum of 3 credits for the entire degree.

3 Choose any course in a discipline not already taken

4 If taking HLTH 174, an additional two credits will be required for the degree.

OCCUPATIONAL THERAPY ASSISTANT: SFCC

Occupational Therapy Assistant
Associate in Applied Science

The Associate in Applied Science Degree will prepare students for positions in the health and rehabilitation profession as Occupational Therapy Assistants. Occupational Therapy Assistants work under the direction of Occupational Therapists and provide services to patients and assist them in carrying out activities and exercises developed from a treatment plan. Occupational Therapy Assistants work with individuals in need of rehabilitation who have mental, physical, emotional or developmental impairments. The goal of the program is to provide students with the knowledge, skills, and experiences required of an Occupational Therapy Assistant. This includes the knowledge and competencies required by any health care professional as well as specific skills, knowledge and experiences specific to rehabilitation services.

The OTA 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.

The SFCC occupational therapy assistant program is fully accredited by The Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 7501 Wisconsin Avenue, Suite 510E Bethesda, MD 20814. ACOTE's telephone number is (301) 652–2682 or (301) 652–2682, and its web address is acoteonline.org.

Prerequisites

BIOL&	241	Human A & P 1 [1]	
ENGL&	101	English Composition I [2]	
MATH	90	Algebra for STEM [3]	
PSYC&	100	General Psychology	

Courses

	A. Program Courses (all required)	90
	Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

OTA	101	Foundation of Occupational Therapy	3
OTA	102	Occupational Therapy Terminology	1
OTA	103	Applied Anatomy	2
OTA	104	Survey of Pathophysiology	5
OTA	105	Introduction to Neuroscience	4
OTA	107	Occupation Through the Lifespan	2
OTA	108	Regional Anatomy	3
OTA	110	OTA Procedures	2
OTA	111	Activity Analysis	3
OTA	112	Occupational Performance and Physical Disabilities	3
OTA	113	Occupational Therapy Principles	3
OTA	114	Therapeutic Activities	3
OTA	120	OTA Procedures Lab	2
OTA	122	Occupational Performance and Physical Disabilities Lab	3
OTA	123	Applied Anatomy Lab	2
OTA	124	Therapeutic Activities Lab	2
OTA	151	Level I Clinical Fieldwork 1- Physical Disabilities	1
OTA	161	Documentation for the Occupational Therapy Assistant	1
OTA	180	Regional Anatomy Lab	2
OTA	201	Issues in Occupational Therapy and Health Care	2
OTA	202	Group Dynamics	2
OTA	203	Management for the Occupational Therapy Assistant	2
OTA	210	Occupational Performance and Mental Health	3
OTA	212	Occupational Performance and Children	3
OTA	220	Occupational Performance and Mental Health Lab	2
OTA	221	Occupational Performance and Aging	3
OTA	231	Occupational Performance and Aging Lab	2
OTA	232	Group Dynamics Lab	1
OTA	242	Occupational Performance and Children Lab	2
OTA	251	Level I Clinical Fieldwork II- Pediatrics and Mental Health	1
OTA	252	Level I Clinical Fieldwork III	1
OTA	253	Level II Clinical Fieldwork 1a	4
OTA	254	Level II Clinical Fieldwork 1b	4
OTA	255	Level II Clinical Fieldwork 2	8
OTA	261	Level II Fieldwork Skills Seminar	1
OTA	263	Fieldwork II Seminar 1	1
OTA	264	Fieldwork II Seminar 2	1

1 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 case–by–case basis. You must contact the counseling center in order to waive BIOL& 160 as a prerequisite for BIOL& 241.

2 ENGL& 101 may be substituted with ENGL& 235.

3 MATH 090 may be substituted with any higher level MATH course, or any comparable college level Business Math course. See your advisor for assistance with this requirement.

ORTHOTIC AND PROSTHETIC TECHNOLOGY: SFCC

Applied Orthotic and Prosthetic Sciences
Associate in Applied Science

The Applied Orthotic and Prosthetic Sciences Program at SFCC offers multiple educational pathways in the dynamic field of orthotics and prosthetics. Students can earn a one–year technical certificate or continue toward an Associate of Applied Science degree while completing several precertification courses which enhance student skills and employability.

The core technical certificate provides comprehensive training in fabrication of orthotic braces and prosthetic limbs, including traditional and digital manufacturing techniques. Students demonstrate competency in working with diverse materials including plastics, metals, composites, and advanced components while learning essential lab safety, anatomy, and biomechanical principles. A certificate as an Orthotic and Prosthetic Technician is awarded after successful at the completion of the first year.

The second–year AAS pathway offers specialized certificates in pedorthics, orthotic fitting, digital workflow, and healthcare documentation/billing. This flexible structure allows students to target specific career goals while building toward an Associate of Applied Science degree.

Graduates are prepared for immediate employment as orthotic–prosthetic technicians, with opportunities for specialization in areas like pedorthics, orthotic fitter, CAD/CAM technology, medical coding and billing, and facility management. The program emphasizes hands–on experience, industry–standard technology, and professional development to meet the growing demand for skilled O&P paraprofessionals.

The program maintains CAAHEP accreditation and partners with industry leaders to ensure curriculum aligns with current practice standards.

Essential Requirements for Student Success:

Orthotic and prosthetic technology requires a unique blend of physical capabilities and technical skills. Successful technicians must demonstrate:

- Fine and gross motor coordination for precision craftwork
- Physical stamina for extended periods of standing
- Manual dexterity for operating tools and handling materials
- Ability to safely operate power equipment and hand tools
- Strength for material handling and fabrication tasks

To be successful in the program and the industry, students should possess or be able to develop the following traits:

- Attention to detail and ability to perform precision work
- Ability to interpret technical instructions
- Problem–solving skills
- Safety awareness and compliance
- Proficiency with hand and power tools
- Dedication to being a life long learner

All students must:

- Pass comprehensive safety assessments
- Demonstrate consistent safe operation of equipment
- Maintain safety protocols throughout the program

Career Opportunities Graduates find diverse employment opportunities across the orthotic and prosthetic industry:

- Private practice facilities
- Central fabrication laboratories
- Hospital–based Orthotic and Prosthetic Clinical facilities
- Government healthcare agencies
- Specialized O&P manufacturers

Geographic mobility and continuing education can enhance career advancement opportunities in this growing healthcare field.

Courses

A. Program Courses (all required)	68
B. Program Support / Related Instruction Courses (all required)	22
Total	**90**

90 credits are required for the Associate in Applied Science

A. Program Courses (all required)

OR-PR	101	Foundations of Orthotic Technology	1
OR-PR	102	Foundations of Orthotic Technology Lab	3
OR-PR	103	Foundations of Prosthetic Technology	1
OR-PR	104	Foundations of Prosthetic Technology Lab	3
OR-PR	105	Orthotic and Prosthetic Terminology	2
OR-PR	106	Orthotic and Prosthetic Lab Safety	2
OR-PR	115	Prosthetic Biomechanical Principals	5
OR-PR	116	Lower Extremity Prosthetic Technologies	4
OR-PR	117	Upper Extremity Prosthetic Technologies	3
OR-PR	145	Orthotic Biomechanical Principals	5
OR-PR	146	Lower Extremity Orthotic Technologies	5
OR-PR	147	Upper Body Orthotic Technologies	2
OR-PR	188	OPT Practicum I	6
OR-PR	189	OPT Practicum II	3
OR-PR	201	Foundations of Pedorthics	4
OR-PR	203	Pedorthic Fabrication and Design	1
OR-PR	205	Applied Clinical Pedorthics	3
OR-PR	207	Applied Pedorthics Lab	2
OR-PR	209	Gait Analysis	2
OR-PR	211	Orthotic Fitter	2
OR-PR	213	Orthotic Fitter Lab	1
OR-PR	215	Digital Workflow I	1
OR-PR	217	Digital Workflow Lab I	1
OR-PR	219	Orthotic and Prosthetic Clinical Terminology	2
OR-PR	221	Digital Workflow II	1
OR-PR	223	Digital Workflow Lab II	1
OR-PR	225	Documentation, Coding, and Billing	2

B. Program Support / Related Instruction Courses (all required)

BUS	122	Practical Business Math I	3
CMST	121	Job Communication Skills	3
FMT	115	Leadership Dynamics	3
HLTH	174	First Aid	3
PHYS	100	Introductory Physics	5
PSYC&	100	General Psychology	5

Orthotic and Prosthetic Technician Certificate

The Applied Orthotic and Prosthetic Sciences Program at SFCC offers multiple educational pathways in the dynamic field of orthotics and prosthetics. Students can earn a one–year technical certificate or continue toward an Associate of Applied Science degree while completing several precertification courses which enhance student skills and employability.

The core technical certificate provides comprehensive training in fabrication of orthotic braces and prosthetic limbs, including traditional and digital manufacturing techniques. Students demonstrate competency in working with diverse materials including plastics, metals, composites, and advanced components while learning essential lab safety, anatomy, and biomechanical principles. A certificate as an Orthotic and Prosthetic Technician is awarded after successful at the completion of the first year.
The second–year AAS pathway offers specialized certificates in pedorthics, orthotic fitting, digital workflow, and healthcare documentation/billing. This flexible structure allows students to target specific career goals while building toward an Associate of Applied Science degree.

Graduates are prepared for immediate employment as orthotic–prosthetic technicians, with opportunities for specialization in areas like pedorthics, orthotic fitter, CAD/CAM technology, medical coding and billing, and facility management. The program emphasizes hands–on experience, industry–standard technology, and professional development to meet the growing demand for skilled O&P paraprofessionals.

The program maintains CAAHEP accreditation and partners with industry leaders to ensure curriculum aligns with current practice standards.

Essential Requirements for Student Success:

Orthotic and prosthetic technology requires a unique blend of physical capabilities and technical skills. Successful technicians must demonstrate:

- Fine and gross motor coordination for precision craftwork
- Physical stamina for extended periods of standing
- Manual dexterity for operating tools and handling materials
- Ability to safely operate power equipment and hand tools
- Strength for material handling and fabrication tasks

To be successful in the program and the industry, students should possess or be able to develop the following traits:

- Attention to detail and ability to perform precision work
- Ability to interpret technical instructions
- Problem–solving skills
- Safety awareness and compliance
- Proficiency with hand and power tools
- Dedication to being a life long learner

All students must:

- Pass comprehensive safety assessments
- Demonstrate consistent safe operation of equipment
- Maintain safety protocols throughout the program

Career Opportunities Graduates find diverse employment opportunities across the orthotic and prosthetic industry:

- Private practice facilities
- Central fabrication laboratories
- Hospital–based Orthotic and Prosthetic Clinical facilities
- Government healthcare agencies
- Specialized O&P manufacturers

Geographic mobility and continuing education can enhance career advancement opportunities in this growing healthcare field.

Courses

A. Program Courses (all required)	45
B. Program Support / Related Instruction Courses (all required)	9
Total	**54**

54 credits are required for the Certificate

A. Program Courses (all required)

OR-PR	101	Foundations of Orthotic Technology	1
OR-PR	102	Foundations of Orthotic Technology Lab	3
OR-PR	103	Foundations of Prosthetic Technology	1
OR-PR	104	Foundations of Prosthetic Technology Lab	3
OR-PR	105	Orthotic and Prosthetic Terminology	2
OR-PR	106	Orthotic and Prosthetic Lab Safety	2
OR-PR	115	Prosthetic Biomechanical Principals	5
OR-PR	116	Lower Extremity Prosthetic Technologies	4
OR-PR	117	Upper Extremity Prosthetic Technologies	3
OR-PR	145	Orthotic Biomechanical Principals	5
OR-PR	146	Lower Extremity Orthotic Technologies	5
OR-PR	147	Upper Body Orthotic Technologies	2
OR-PR	188	OPT Practicum I	6
OR-PR	189	OPT Practicum II	3

B. Program Support / Related Instruction Courses (all required)

BUS	122	Practical Business Math I	3
CMST	121	Job Communication Skills	3
FMT	115	Leadership Dynamics	3

PARALEGAL: SCC

Paralegal Certificate

This regionally respected American Bar Association (ABA) approved program consists of basic and specialty legal courses designed to prepare students for employment in the legal services field. The program offers an Associate in Applied Sciences (AAS) in Paralegal Studies, and Paralegal Certificate.

The AAS in Paralegal Studies is awarded after completion of 90 credits of required coursework. If full class loads are taken each quarter, the program requires 6 quarters to complete. The supervised legal work experience required for graduation or the internship must be approved by the program director. A grade of 2.0 or higher in each class (including prerequisites) is required for both the AAS degree and the certificate.

Students may enroll in the certificate program instead of the AAS program if the student is in the process of or has completed an Associate in Arts degree (AA), AAS in Legal

Administrative Assistant, Bachelor of Arts degree, or a Bachelor of Science degree from an accredited college and/or university.

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.

First Quarter

ENGL&	101	English Composition I [1]	5
LA	107	Introduction to Legal Careers	3
LA	125	Law Office Procedures and Technology	3
LA	130	Legal Ethics	3
		Legal Specialty Courses [8]	5
		Total	**19**

Second Quarter

LA	105	Washington and Idaho Court Rules	3
LA	108	Legal Citations	3
		Legal Specialty Courses [9]	9
		Math Electives [6]	5
		Total	**20**

Third Quarter

LA	110	Legal Research and Writing [2]	3
LA	118	Instrument Drafting [3]	3
LA	120	Law Office Computing	3
		Legal Specialty Courses [10]	6
		Total	**15**

Fourth Quarter

LA	245	Supervised Legal Work Experience	4
		Legal Specialty Courses [11]	2-13
		Total	**6–17**

60-71 credits are required for the Certificate

Legal Specialty Courses

ACCT	151	College Accounting I [4]	5
ACCT&	201	Principles of Accounting I [4]	5
BUS	204	Introduction to Law	5
HED	104	Medical Terminology and Anatomy	5
HED	105	Medical Terminology and Anatomy	5
LA	201	Introduction to Probate	3
LA	205	Contracts	3
LA	207	Family Law	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	223	Interview and Investigation Techniques	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	240	Special Issues Seminar [5]	1-10
LA	241	Evidence	3
LA	285	Legal Office Internship	1-3

Math Electives [6]

BUS	104	Business Mathematics [7]	5
MATH&	107	Math in Society	5

1 Students must be enrolled in ENGL& 101 or BT 272 during the first quarter unless they have already completed it.

2 ENGL& 101 or BT 272 required prior to enrollment. LA 108 Legal Citations is a pre–requisite.

3 ENGL& 101 or BT 272 and LA 105 (or concurrent enrollment in LA 105) required prior to enrollment.

4 Only one ACCT course may be counted towards Legal Specialty Courses requirements.

5 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 certificate.

6 Any generally transferable math course may be substituted.

7 BUS 104 has a prerequisite of BUS 103. Also, BUS 104 does not count toward your required general education courses. Students must take an additional college level general elective course communications, humanities, social science, math, science, or foreign language.

8 BUS 204 recommended

9 LA 201, LA 220, and LA 220 recommended

10 LA 219 and LA 223 recommended

11 LA 240 (3 credits) and LA 285 (1 credit) recommended

Paralegal
Associate in Applied Science

This regionally respected American Bar Association (ABA) approved program consists of basic and specialty legal courses designed to prepare students for employment in the legal services field. The program offers an Associate in Applied Sciences (AAS) in Paralegal Studies and Paralegal Certificate.
The AAS in Paralegal Studies is awarded after the completion of 90 credits of required coursework. If full class loads are taken each quarter, the program requires 6 quarters to complete. The supervised legal work experience required for graduation or the internship must be approved by the program director. A grade of 2.0 or higher in each class (including prerequisites) is required for both the AAS degree and the certificate.

Students may enroll in the certificate program instead of the AAS program if the student is in the process of or has completed an Associate in Arts degree (AA), a bachelor's degree, or advanced degree from an accredited college and/or university.

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.

First Quarter

BUS	204	Introduction to Law	5
ENGL&	101	English Composition I [1]	5
LA	107	Introduction to Legal Careers	3
		Total	**13**

Second Quarter

LA	108	Legal Citations	3
		Legal Specialty Courses [9]	6
		Math Electives	5
		Total	**14**

Third Quarter

LA	110	Legal Research and Writing [3]	3
LA	120	Law Office Computing [5]	3
		Communication Electives	5

		Legal Specialty Courses [10]	3
		Total	**14**

Fourth Quarter

LA	125	Law Office Procedures and Technology	3
LA	130	Legal Ethics	3
		Humanities Electives	5
		Legal Specialty Courses [11]	6
		Total	**17**

Fifth Quarter

LA	105	Washington and Idaho Court Rules	3
		Legal Specialty Courses [12]	9
		Social Sciences Electives	5
		Total	**17**

Sixth Quarter

LA	118	Instrument Drafting	3
LA	245	Supervised Legal Work Experience	4
		General Education Electives [2]	5
		Legal Specialty Courses [13]	3
		Total	**15**

90 credits are required for the Associate in Applied Science

Communication Electives

CMST&	101	Introduction to Communication	5
CMST	103	Effective Listening	5
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5
CMST&	230	Small Group Communication	5
ENGL&	102	Composition II	5
ENGL&	113	Intro to Poetry	5
ENGL	238	Advanced Expository Writing	5

Humanities Electives

CMST	227	Intercultural Communication	5
ENGL&	111	Intro to Literature	5
ENGL	209	British Literature since 1800	5
ENGL	248	American Literature to 1865	5
ENGL	249	American Literature since 1865	5
ENGL	261	Studies in the Novel	5
ENGL	271	World Literature to 1650	5
ENGL	272	World Literature since 1650	5
HUM&	101	Intro to Humanities	5
HUM	201	Humanities, Past, Present, and Future	5
PHIL&	101	Intro to Philosophy	5
PHIL	110	Intro to Ethics	5
PHIL	220	Philosophy of Religion	5

Legal Specialty Courses

ACCT	151	College Accounting I [6]	5
ACCT&	201	Principles of Accounting I [6]	5
HED	104	Medical Terminology and Anatomy	5
HED	105	Medical Terminology and Anatomy	5
LA	201	Introduction to Probate	3
LA	205	Contracts	3
LA	207	Family Law	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	223	Interview and Investigation Techniques	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	239	Special Issues Seminar	3
LA	240	Special Issues Seminar [7]	1-10
LA	241	Evidence	3
LA	285	Legal Office Internship	1-3

Math Electives [8]

BUS	104	Business Mathematics [4]	5
MATH&	107	Math in Society	5

Social Sciences Electives

HIST&	116	Western Civilization I	5
HIST&	117	Western Civilization II	5
HIST&	118	Western Civilization III	5
HIST&	136	US History 1	5
HIST&	137	US History 2	5
HIST&	214	Pacific NW History	5
HIST	230	Latin American History	5
POLS&	101	Intro to Political Science	5
POLS	125	Introduction to Global Issues	5
POLS&	202	United States Government	5
POLS&	203	International Relations	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
SOC	211	Marriage and the Family	5
SOC	221	Race and Ethnic Relations	5

1 Must be taken during the first quarter of enrolling in the AAS in Paralegal Studies program.

2 Any transferable college level general elective course from communications, humanities, social science, math, science, or foreign language.

3 ENGL& 101 or BT 272 is required prior to enrollment. LA 108 – Legal Citations is a prerequisite.

4 BUS 104 prerequisite: BUS 103. BUS 104 does not count toward your required general education courses.

5 BT 165 required prior to enrollment; or permission of instructor.

6 Only one ACCT course may be counted towards Legal Specialty Courses requirements.

7 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.

8 Any generally transferable math course may be substituted. The math requirement must be satisfied

9 LA 207 and LA 220 recommended

10 LA 219 recommended

11 LA 205 and LA 241 recommended

12 LA 201, LA 221, and LA 230 recommended

13 LA 223 recommended

PHARMACY: SCC

Pharmacy Technician Certificate

Pharmacy Technician is an Allied Health program designed to train 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 20 credit hours of required courses and 5 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
- National background check
- Washington State Patrol (WSP) background check
- Interview with pharmacy technician instructor
- Three letters of recommendation
- 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 third quarter and has to repeat a class the next year, they must also pass the technique skills for the lab portion of PHARM 123 and 124.

First Quarter

ENGL&	101	English Composition I	5
HED	108	Human Anatomy [1]	5
HED	125	Medical Terminology	5
		Total	**15**

Second Quarter

CMST&	210	Interpersonal Communication	5
PHARM	101	Introduction to Pharmacy Technician	3
PHARM	115	Mathematics for Pharmacy Technicians	5
PHARM	119	Pharmacology	3
PHARM	126	Sterile Compounding and Aseptic Technique	3
		Total	**19**

Third Quarter

PHARM	122	Advanced Pharmacology	5
PHARM	123	Hospital Pharmacy Dispensing and Management	5
PHARM	124	Community Pharmacy Dispensing and Management	5
PHARM	131	Pharmacy Law and Ethics	3
		Total	**18**

Fourth Quarter

HED	121	Cultural Diversity in Health Care	1
PHARM	130	Entering the Work Environment	2
PHARM	132	Community Pharmacy	6
PHARM	133	Hospital Pharmacy	6
		Total	**15**

67 credits are required for the Certificate

[1] May be substituted with BIOL& 241.

Pharmacy Technician
Associate in Applied Science

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 20 credit hours of required courses and 5 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
- National background check
- Interview with pharmacy technician instructor
- Three letters of recommendation
- 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 third quarter and has to repeat a class the next year, they must also pass the technique skills for the lab portion of PHARM 123 and 124.

First Quarter

ENGL&	101	English Composition I	5
HED	108	Human Anatomy [2]	5
HED	125	Medical Terminology	5
		Total	**15**

Second Quarter

CMST&	210	Interpersonal Communication	5
PHARM	101	Introduction to Pharmacy Technician	3
PHARM	115	Mathematics for Pharmacy Technicians	5
PHARM	119	Pharmacology	3
PHARM	126	Sterile Compounding and Aseptic Technique	3
		Total	**19**

Third Quarter

PHARM	122	Advanced Pharmacology	5
PHARM	123	Hospital Pharmacy Dispensing and Management	5
PHARM	124	Community Pharmacy Dispensing and Management	5
PHARM	131	Pharmacy Law and Ethics	3
		Total	**18**

Fourth Quarter

HED	121	Cultural Diversity in Health Care	1
PHARM	130	Entering the Work Environment	2
PHARM	132	Community Pharmacy	6
PHARM	133	Hospital Pharmacy	6
		Total	**15**

Fifth Quarter

		Required Courses for AAS Degree	20
		Total	**20**

Sixth Quarter

		Elective Courses for the AAS Degree [1]	5
		Total	**5**

92 credits are required for the Associate in Applied Science

Elective Courses for the AAS Degree

BUS&	101	Intro to Business	5
BUS	280	Human Relations in Business	5

CMST	250	Managing Conflict Through Communication	5
MATH&	107	Math in Society	5
MMGT	101	Principles of Management	5
SOC	211	Marriage and the Family	5

Required Courses for AAS Degree

CMST	227	Intercultural Communication	5
ENGL&	102	Composition II	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

[1] Departmentally approved elective numbered 100 or above.

[2] May be substituted with BIOL& 241.

PHOTOGRAPHY: SFCC

Photography
Associate in Applied Science

If you enjoy viewing life through a camera lens, a degree in photography could help put your future in focus.

Founded in 1965, our photography program is an intensive two–year study of visual communications. You'll learn the fundamentals of lighting, composition and visual storytelling; practice your artistic and technical skills in studios and technology labs; and explore current trends and career opportunities in photography and digital media production. The program includes opportunities to interact with industry professionals through field trips, guest speakers and cooperative work experiences.

Whether you want to start your own photography business, work in journalism or join an in–house marketing and communication team, this program can help you transform your passion into a successful career.

Courses

A. Program Courses (all required)	67
B. Photography Approved Electives (choose 3-5 credits)	3-5
C. Art Elective (choose 5 credits)	5
D. Communication Elective (choose 5 credits)	5
E. Computation Elective (choose 5 credits)	5
F. Human Relations/Leadership Elective (choose 5 credits)	5
Total	**90–92**

90-92 credits are required for the Associate in Applied Science

A. Program Courses (all required)

MMGT	128	Social Media Marketing Campaign	5
PHOTO	101	Introduction to Photography	5
PHOTO	111	Studio Photography I	5
PHOTO	112	Photographic Design	5
PHOTO	121	Location Photography I	5
PHOTO	126	Digital Photography	5
PHOTO	200	Photography Media	5
PHOTO	225	Portfolio Development II	5
PHOTO	227	Business of Photography	5
PHOTO	231	Studio Photography II	5
PHOTO	232	Portraiture	5
PHOTO	233	Location Photography II	5
PHOTO	234	Digital Photography II	5
PHOTO	266	Cooperative Education Seminar	1
PHOTO	267	Cooperative Education Work Experience	1

B. Photography Approved Electives (choose 3–5 credits) [1]

ART	189	Printmaking	4
ART	191	Screen Printing	4
ART	192	Printmaking, Intaglio	4
PHOTO	120	Photographic Arts	5
PHOTO	235	Nature and Landscape Photography	3
PHOTO	236	Photography Workshop	1-5
PHOTO	267	Cooperative Education Work Experience	1-5

C. Art Elective (choose 5 credits)

ART	105	Color and Design	5
PHOTO	120	Photographic Arts	5

D. Communication Elective (choose 5 credits)

BT	107	Business Communications	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5

E. Computation Elective (choose 5 credits)

BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

F. Human Relations/Leadership Elective (choose 5 credits)

BUS	280	Human Relations in Business	5
CMST&	101	Introduction to Communication	5
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
PSYC&	100	General Psychology	5

[1] In addition to listed electives, student may select independent study with approval of program instructor.

PHYSICAL THERAPIST ASSISTANT: SFCC

Physical Therapist Assistant
Associate in Applied Science

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. A national licensing examination is required for most states in order to practice as a physical therapist assistant.

Each successful PTA applicant may be required to complete a background check, drug testing and submit proof of immunization. Clinical facilities may deny access to a student for any of the following:

- Lack of current immunizations required by the site
- A "discrepancy" on the criminal background check
- A positive drug test

While entrance to the PTA Program may not be denied because of such a rating, without access to the clinical facilities a student may not be able to satisfactorily complete the PTA program and will be so advised.

Essential requirements needed for the profession which include communication skills, cognitive demands, physical skills and behavioral, social and professional skills are discussed in greater detail in the **Program Information Booklet** located on our website.

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.

Prerequisites

BIOL&	241	Human A & P 1 [1]

Courses

A. Program Courses (all required)	88
B. Program Support / Related Instruction Courses (all required) [2]	15
Total	**103**

103 credits are required for the Associate in Applied Science

A. Program Courses (all required)

PTA	101	Introduction to Physical Therapy	3
PTA	102	Physical Therapy Terminology	1
PTA	103	Applied Anatomy	3
PTA	104	Survey of Pathophysiology	5
PTA	105	Introduction to Neuroscience	4
PTA	107	Physical Therapy Documentation	1
PTA	108	Regional Anatomy	3
PTA	110	PTA Procedures I: Basic PT Procedures Seminar	3
PTA	111	PTA Procedures II: PT Modalities Seminar	3
PTA	112	PTA Procedures III: Functional Restoration Seminar	3
PTA	151	Clinical Experience I	1
PTA	170	PTA Procedures I: Basic PT Procedures Lab	4
PTA	171	PTA Procedures II: PT Modalities Lab	4
PTA	172	PTA Procedures III: Functional Restoration Lab	4
PTA	173	Applied Anatomy Lab	3
PTA	180	Regional Anatomy Lab	2
PTA	201	Issues in Physical Therapy and Health Care	2
PTA	202	Introduction to Orthopedics	3
PTA	203	Physical Therapy Preparatory Lab	1
PTA	210	PTA Procedures IV: Therapeutic Exercise Seminar	3
PTA	211	PTA Procedures V: Rehab Applications Seminar	3
PTA	212	PTA Procedures VI: Pediatric Rehab Seminar	1
PTA	251	Clinical Experience II	1
PTA	252	Clinical Experience III	3
PTA	253	PTA Clinical Affiliation	12
PTA	254	Clinical Seminar II	1
PTA	255	Clinical Seminar III	1
PTA	270	PTA Procedures IV: Therapeutic Exercise Lab	4
PTA	271	PTA Procedures V: Rehab Applications Lab	4
PTA	272	PTA Procedures VI: Pediatric Rehab Lab	2

B. Program Support / Related Instruction Courses (all required) [2]

ENGL&	101	English Composition I	5
MATH	90	Algebra for STEM [3]	5
PSYC&	100	General Psychology [4]	5

1 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 case–by–case basis. Even though BIOL& 160 is not a prerequisite for BIOL& 241 for PTA students, it is recommended. You must contact the counseling center in order to waive BIOL& 160 as a prerequisite for BIOL& 241.

2 Admission preference is given to students who complete these courses prior to entry into the program. May be substituted with approval of program chair. Credits may be taken during summer between first and second year. Credits from these courses are included in the total credits for degree.

3 MATH 090 may be substituted with any of the following: MATH& 107, MATH 140, MATH&141 or 142, MATH& 146, or any higher level 5–credit MATH course. Math placement is needed to determine enrollment eligibility.

4 PSYC& 220 (Abnormal Psychology) may be substituted for PSYC& 100 (General Psychology)

PROJECT MANAGEMENT: SCC

Project Management/Lean/Six Sigma Certificate

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 conjunction with Project Management, this certificate program will also provide students with real–world Lean Six Sigma training. Students will lead a Lean Six Sigma event focused on a process improvement methodology that combines the benefits of both Lean manufacturing techniques and Six Sigma to help companies streamline operations, increase value, and reduce waste. Students will engage in 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. Courses in this program can be applied to the AAS degree in Management.

First Quarter

MMGT	243	Fundamentals of Project Management [1]	5
MMGT	244	Introduction to Lean Six Sigma [2]	2.5
		Total	**7.5**

Second Quarter

CATT	241	Microsoft Project	2.5
MMGT	256	Lean Leadership [3]	5
		Total	**7.5**

15 credits are required for the Certificate

1 MMGT 243 is offered in the fall and winter.

2 MMGT 244 is only offered in the fall

3 MMGT 256 is only offered in the winter

RADIOLOGY TECHNOLOGY: SCC

Radiology Technology
Associate in Applied Science

Radiologic technologists are an integral part of the allied health 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.

National 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.
- Appropriate math score
- Self–place into English
- 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.
- Immunizations, and drug screening are required (after being accepted into the Radiology Technology program). Forms are available in the SCC registration office.

The following math and science prerequisites courses must have been completed within the last five years and each of the following courses must have the indicated minimum grade:

- Computer Fundamentals (min. grade 2.0)
- General Biology w/Lab (min. 2.0)
- Human A & P 1 (min. 2.5)
- Human A & P 2 (min. 2.5)
- Introductory Physics (min. 2.5)
- Essentials for Algebra 2 or Algebra for Math Literacy II (min. 2.5)
- English Composition I (min. 2.0)
- Medical Terminology (min. 2.5)
- Blood Borne Pathogens (SURG 105) –optional

All documentation must be submitted by June 25th of the year of application.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1 [1]
BIOL&	242	Human A & P 2
CIS	110	Introduction to Computer Applications
ENGL&	101	English Composition I [2]
HED	125	Medical Terminology
MATH	88	Algebra for Math Literacy II [3]
PHYS	100	Introductory Physics
SURG	105	Blood-borne Pathogens and HIV/AIDS [4]

First Quarter

BIOL&	160	General Biology w/Lab	5
ENGL&	101	English Composition I [2]	5
MATH	88	Algebra for Math Literacy II [3]	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1 [1]	5
CIS	110	Introduction to Computer Applications	5
HED	125	Medical Terminology	5
		Total	**15**

Third Quarter

BIOL&	242	Human A & P 2	5
PHYS	100	Introductory Physics	5
SURG	105	Blood-borne Pathogens and HIV/AIDS [4]	1
		Total	**11**

Fourth Quarter

RAD	111	Radiographic Positioning I	5
RAD	113	Patient Care and Ethics I	2
RAD	114	Radiographic Image Evaluation I	2
RAD	115	Radiographic Principles I	3
RAD	116	Clinical Education I	8
		Total	**20**

Fifth Quarter

RAD	121	Radiographic Positioning II	3
RAD	123	Patient Care and Ethics II	2
RAD	124	Radiographic Image Evaluation II	2
RAD	125	Radiographic Principles II	3
RAD	126	Clinical Education II	9
RAD	127	Mobile/Surgical Procedures	1
		Total	**20**

Sixth Quarter

RAD	131	Radiographic Positioning III	2
RAD	134	Radiographic Image Evaluation III	2
RAD	136	Clinical Education III	9
RAD	145	Radiographic Principles III	2
		Total	**15**

Seventh Quarter

RAD	141	Radiographic Positioning IV	2
RAD	144	Radiographic Image Evaluation IV	1
RAD	146	Clinical Education IV	7
RAD	235	Pharmacology/Venipuncture	2
		Total	**12**

Eighth Quarter

RAD	212	Quality Management	2
RAD	213	Various Modalities	2
RAD	214	Radiographic Image Evaluation V	2
RAD	215	Radiation Biology and Protection	1
RAD	216	Clinical Education V	9
		Total	**16**

Ninth Quarter

RAD	211	Radiographic Positioning V	1
RAD	223	Radiation Pathology	2
RAD	224	Radiographic Image Evaluation VI	2
RAD	225	Skull and GI Review	1
RAD	226	Clinical Education VI	9
		Total	**15**

Tenth Quarter

RAD	236	Clinical Education VII	9
RAD	237	Review and Registration Preparation	3
RAD	238	Cat Scan	1
RAD	239	Advanced Image Evaluation	1
		Total	**14**

153 credits are required for the Associate in Applied Science

1 This course has a prerequisite of BIOL& 160.

2 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

3 MATH 88 can be substituted with MATH 72.

4 This course may be taken during the first quarter of the program. Recommended to take prior to enrollment.

RESPIRATORY CARE: SCC

Respiratory Care
Bachelor of Applied Science

Spokane Community College's Bachelor of Applied Science in Respiratory Care program offers a cutting–edge learning environment with high tech equipment that will prepare you for bedside practice. The program has a fully functional high–fidelity simulation lab including a neonatal simulator, a large selection of mechanical ventilators to practice on, a fully functional Pulmonary Function Lab as well as all other required equipment you will need to become a successful and compassionate Respiratory Therapist.

Spokane Community College's Bachelor of Applied Science in Respiratory Care prepares graduates with demonstrated competence in cognitive, psychomotor, and affective domains of respiratory care practice as performed by registered respiratory therapists (RRTs). The program prepares leaders in the discipline by providing additional curricular content in research, management, advanced practice, and education.

This program is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com) 1248 Harwood Road, Bedford, TX 76021–4244, (817) 283–2835.

Upon completion of the program, students will earn a Bachelor of Applied Science in Respiratory Care and will be eligible to apply and sit the National Board for Respiratory Care (NBRC) exams for registered respiratory therapist (RRT) and the specialty exams in pulmonary function, neonatal–pediatric, and adult critical care.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
BIOL&	260	Microbiology
CHEM&	121	Intro to Chemistry: w/Lab
CMST	227	Intercultural Communication
ENGL&	101	English Composition I
ENGL&	235	Technical Writing
MATH&	146	Introduction to Stats

First Quarter

BIOL&	160	General Biology w/Lab	5
ENGL&	101	English Composition I	5
MATH&	146	Introduction to Stats	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1	5
CHEM&	121	Intro to Chemistry: w/Lab	5
ENGL&	235	Technical Writing [1]	5
		Total	**15**

Third Quarter

BIOL&	242	Human A & P 2	5
BIOL&	260	Microbiology	5
CMST	227	Intercultural Communication	5
		Total	**15**

Fourth Quarter

RT	209	The Language of Respiratory Care	1
RT	213	Electrocardiography	3
RT	214	Electrocardiography Lab	1
RT	241	Fundamentals of Respiratory Care I	3
RT	242	Fundamentals of Respiratory Care I Technical Skills Lab	2
RT	244	Cardiopulmonary Anatomy and Physiology	3
RT	248	Physical Science for Respiratory Care	3
		Total	**16**

Fifth Quarter

PHIL	110	Intro to Ethics	5
RT	251	Fundamentals of Respiratory Care II	3
RT	252	Fundamentals of Respiratory Care II Technical Skills Lab	2
RT	256	Interpretation of Arterial Blood Gases	2
RT	308	Basic Life Support Instructor	2
SURG	105	Blood-borne Pathogens and HIV/AIDS	1
		Total	**15**

Sixth Quarter

PSYC&	100	General Psychology	5
RT	261	Fundamentals of Respiratory Care III	4
RT	262	Fundamentals of Respiratory Care III Technical Skills Lab	2
RT	263	Respiratory Care Pharmacology	4
RT	264	Computer Applications in Respiratory Care	1
RT	265	RT Clinical I	1
		Total	**17**

Seventh Quarter

PSYC&	200	Lifespan Psychology	5
RT	254	Fundamentals of Spirometry	2
RT	255	Fundamentals of Spirometry Technical Skills Lab	1
RT	304	Pathophysiology	5
RT	321	RT Clinical II	2
		Total	**15**

Eighth Quarter

RT	301	Critical Care I	4
RT	305	Pulmonary Volumes Diffusion and Instrumentation	2
RT	311	Critical Care I Technical Skills Lab	2
RT	315	PVDI Technical Skills Lab	1
RT	322	RT Clinical III	2
RT	402	Advanced Cardiovascular Life Support	2
RT	412	Advanced Cardiovascular Life Support Lab	1
		Total	**14**

Ninth Quarter

RT	302	Critical Care II	3
RT	309	Advanced Pharmacology	3
RT	312	Critical Care II Technical Skills Lab	2
RT	325	PFT Clinical I	1
RT	331	Critical Care Clinical I	5
		Total	**14**

Tenth Quarter

RT	401	Pediatrics/Neonatal RT	3
RT	403	Advanced Pulmonary Diagnostics	3
RT	411	Pediatrics/Neonatal Technical Skills Lab	2
RT	413	Advanced Pulmonary Diagnostics Technical Skills Lab	1
RT	421	Critical Care Clinical II	5
		Total	**14**

Eleventh Quarter

RT	303	Home Care and Rehabilitation	2
RT	404	Research in Respiratory Care	2
RT	415	Disease Management	4
RT	416	Disaster Management	2
RT	423	Advanced Pulmonary Diagnostics Clinical	1
RT	424	Pediatric/Neonatal Clinical	4
		Total	**15**

Twelfth Quarter

RT	406	Management in Respiratory Care	2
RT	407	Patient Management and Problem Solving	3
RT	409	Research in Respiratory Capstone	2
RT	410	Fundamentals of Education Course Design	2
RT	417	Patient Management and Problem Solving Technical Skills Lab	1
RT	433	Advanced Clinical	5
		Total	**15**

180 credits are required for the Bachelor of Applied Science

[1] ENGL& 102 may be substituted for ENGL& 235.

ROBOTICS MECHATRONICS TECHNOLOGY: SCC

Robotics and Mechatronics Technology
Associate in Applied Science

Graduates from the Robotics Mechatronics 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 Quarter

ROBO	111	Pneumatic Theory	6
ROBO	112	Machine Controls	7
ROBO	113	Computer Applications for Robotics	4
		Total	**17**

Second Quarter

ROBO	121	Hydraulic Calculations	5
ROBO	122	Hydraulic Basics and Theory	5
ROBO	123	Print Reading	4
ROBO	124	Basic Hydraulics Lab	2
		Total	**16**

Third Quarter

APLED	121	Applied Written Communication [1]	4
ROBO	131	Hydraulic Systems	6
ROBO	132	Fluid Line Fabrication	2
ROBO	133	Fluid Line Connectors	5
ROBO	134	Industrial Technology Drawing	2
		Total	**19**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ROBO	241	Hydraulic Circuits	4
ROBO	242	Hydraulic Component Repair	6
ROBO	243	Fluid Line Layout and Assembly	2
ROBO	244	Advanced Hydraulics Lab	3
ROBO	245	Electronic Valve Technology	4
		Total	**22**

Fifth Quarter

APLED	123	Leadership Skills for Business and Industry [1]	3
ROBO	251	Advanced Pneumatics Theory	3
ROBO	252	Advanced Pneumatics Lab	2
ROBO	253	Mechanical Drive Systems Theory	3
ROBO	254	Mechanical Drive Systems Lab	3
ROBO	255	Velocity and Load Calculations	1
ROBO	256	Advanced Machine Controls	5
		Total	**20**

Sixth Quarter

ROBO	261	Fluid Power Computer Applications [2]	4
ROBO	262	Industrial Applications and Sales [2]	5
ROBO	263	Hydraulic Circuit Design [2]	3
ROBO	264	Hydraulic Manifold Design [2]	5
		Total	**17**

111 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 Sixth quarter courses may be substituted with the following courses with department permission: ROBO 266 (1 credit) and ROBO 267 (1–16 credits).

Robotics Mechatronics Technology Certificate

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 Quarter

ROBO	111	Pneumatic Theory	6
ROBO	112	Machine Controls	7
ROBO	113	Computer Applications for Robotics	4
		Total	**17**

Second Quarter

ROBO	121	Hydraulic Calculations	5
ROBO	122	Hydraulic Basics and Theory	5
ROBO	123	Print Reading	4
ROBO	124	Basic Hydraulics Lab	2
		Total	**16**

Third Quarter

APLED	121	Applied Written Communication [1]	4
ROBO	131	Hydraulic Systems	6
ROBO	132	Fluid Line Fabrication	2
ROBO	133	Fluid Line Connectors	5
ROBO	134	Industrial Technology Drawing	2
		Total	**19**

52 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

SMALL FARM PRODUCTION: SCC

Small Farm Production Certificate

The Small Farms program provides students with knowledge and practice in food production. Graduates of the program are experienced in topics including plant propagation, crop science, pest and disease diagnosis, greenhouse operation, farm marketing, and business management. At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2

AGHRT	103	Introduction to Greenhouse and Nursery Production [2]	3
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	210	Environmental Soil Science [2]	5
		Total	**16**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	101	Basic Crop Science [2]	5
AGHRT	105	Horticultural Retail Sales	3
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
AGHRT	185	AgHort Occupational Preparation [1]	1
		Total	**15**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	195	Practicum	2
ENVS	110	Plant Biology [2]	5
		Total	**15**

46 credits are required for the Certificate

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 May be substituted with CIS 105 or CIS 110. Related education requirement.

Small Farm Production
Associate in Applied Science

The Small Farms program provides students with knowledge and practice in food production. Graduates of the program are experienced in topics including plant propagation, crop science, pest and disease diagnosis, greenhouse operation, farm marketing, and business management. At the successful completion of the second year, passing all required coursework, the student will receive the associate in applied sciences degree.

The following is a typical student schedule. Individual student schedules may differ slightly depending on course availability. Courses may only be offered 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 advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment	2
AGHRT	103	Introduction to Greenhouse and Nursery Production [2]	3
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**15**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
		Total	**15**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
AGHRT	105	Horticultural Retail Sales	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	195	Practicum	2
ENVS	210	Environmental Soil Science [2]	5
		Total	**18**

Fourth Quarter

AGHRT	106	Greenhouse and Nursery Management I [2]	5
AGHRT	115	Pruning	2
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Total	**14**

Fifth Quarter

AGHRT	107	Greenhouse and Nursery Management II [2]	5
AGHRT	202	Principles of Irrigation [2]	4
AGHRT	219	Soil Management and Fertility [2]	5
		Total	**14**

Sixth Quarter

AGHRT	108	Greenhouse and Nursery Management III [2]	4
AGHRT	225	Weed Biology and Control	5
AGHRT	237	Small Farm Production [2]	5
AGHRT	238	Small Farm Marketing [2]	3
		Total	**17**

93 credits are required for the Associate in Applied Science

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 May be substituted with CIS 105 or CIS 110. Related education requirement.

SOCIAL MEDIA MARKETING: SFCC

Social Media Marketing
Certificate

The primary goal of this certificate is to provide students with a working knowledge and hands on experience in the field of social media marketing. This certificate is designed for both incumbent workers who are looking to update their marketing, public relations, and advertising skills; and students seeking a position in the field of social media marketing.

Courses

		A. Program Courses (all required)	15
		Total	**15**

15 credits are required for the Certificate

A. Program Courses (all required)

MMGT	125	Social Media Marketing	5
MMGT	126	Search Engine Marketing	5
MMGT	128	Social Media Marketing Campaign	5

SOFTWARE DEVELOPMENT: SCC

Computer Science Certificate

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.

First Quarter

CIS	146	Introduction to Programming	5
		Total	**5**

Second Quarter

CIS	282	Programming Principles	5
		Total	**5**

Third Quarter

CIS	283	Prog Principles II	5
		Total	**5**

15 credits are required for the Certificate

Frontend Developer Certificate

The Frontend Developer Certificate program consists of training students to code the visual frontend elements of a web application using HTML, CSS, and JavaScript. A Frontend Developer is responsible for converting website design files into raw HTML, CSS and JavaScript code that is free of errors and looks exactly as designed. For further information, contact a program instructor or a counselor.

Students must maintain a grade of 2.0 in each class.

First Quarter

CIS	107	Software Math	2
CIS	108	Computer Math	3
CIS	111	HTML5/CSS3	5
CIS	146	Introduction to Programming	5
		Total	**15**

Second Quarter

CIS	114	Frontend Development I	5
CIS	130	Responsive Web Design	5
ENGL&	101	English Composition I [1]	5
		Total	**15**

Third Quarter

CIS	117	Frontend Development II	5
CMST&	210	Interpersonal Communication	5
		Total	**10**

40 credits are required for the Certificate

[1] ENGL& 101 may be substituted with BT 274

Full Stack Developer Certificate

The Full Stack Certificate program consists of training students to code both the frontend and backend of a website. A Full Stack Developer is responsible for creating database–driven web applications with HTML, CSS, JavaScript, and one or more back–end languages like PHP or Node.js. For further information, contact a program instructor or a counselor.

Students must maintain a grade of 2.0 in each class.

First Quarter

CIS	107	Software Math	2
CIS	108	Computer Math	3
CIS	111	HTML5/CSS3	5
CIS	146	Introduction to Programming	5
		Total	**15**

Second Quarter

CIS	114	Frontend Development I	5
CIS	126	DBMS/SQL	5
CIS	258	Backend Development I	5
		Total	**15**

Third Quarter

CIS	117	Frontend Development II	5
CIS	259	Backend Development II	5
		Total	**10**

40 credits are required for the Certificate

Mobile Developer Certificate

The Mobile Developer Certificate program consists of training students to code mobile applications. A Mobile Developer is responsible for developing phone and tablet applications using the most popular platforms. For further information, contact a program instructor or a counselor.

Students must maintain a grade of 2.0 in each class.

First Quarter

CIS	282	Programming Principles	5
ENGL&	101	English Composition I [1]	5
		Total	**10**

Second Quarter

CIS	217	Mobile Development I	5
CMST&	210	Interpersonal Communication	5
		Total	**10**

Third Quarter

CIS	218	Mobile Development II	5
		Total	**5**

25 credits are required for the Certificate

[1] ENGL& 101 may be substituted with BT 274.

PHP Developer
Certificate

The PHP Developer Certificate program consists of training students to code applications and websites using the dynamic scripting language PHP. A PHP Developer is responsible for creating database–driven web applications using PHP and the MySQL database. For further information, contact a program instructor or a counselor.

Students must maintain a grade of 2.0 in each class.

First Quarter

CIS	107	Software Math	2
CIS	108	Computer Math	3
CIS	111	HTML5/CSS3	5
CIS	146	Introduction to Programming	5
		Total	**15**

Second Quarter

CIS	126	DBMS/SQL	5
CIS	230	PHP I	5
ENGL&	101	English Composition I [1]	5
		Total	**15**

Third Quarter

CIS	225	Content Management Systems	5
CIS	233	PHP II	5
		Total	**10**

40 credits are required for the Certificate

[1] ENGL& 101 may be substituted with BT 274

Software Development
Associate in Applied Science

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.

First Quarter

CIS	107	Software Math	2
CIS	108	Computer Math	3
CIS	111	HTML5/CSS3	5
CIS	146	Introduction to Programming	5
		Total	**15**

Second Quarter

CIS	114	Frontend Development I	5
CIS	126	DBMS/SQL	5
CIS	130	Responsive Web Design	5
		Total	**15**

Third Quarter

CIS	117	Frontend Development II	5
CMST&	210	Interpersonal Communication	5
ENGL&	101	English Composition I [1]	5
		Total	**15**

Fourth Quarter

CIS	230	PHP I	5
CIS	258	Backend Development I	5
CIS	282	Programming Principles	5
		Total	**15**

Fifth Quarter

CIS	217	Mobile Development I	5
CIS	233	PHP II	5
CIS	259	Backend Development II	5
		Total	**15**

Sixth Quarter

CIS	218	Mobile Development II	5
CIS	225	Content Management Systems	5
CIS	272	Agile Software Development	5
		Total	**15**

90 credits are required for the Associate in Applied Science

[1] Can take BT 274 in place of ENGL& 101

Web Design
Certificate

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.

Courses

CIS	111	HTML5/CSS3	5
CIS	112	Web Graphics with Photoshop	3
CIS	130	Responsive Web Design	5
CIS	146	Introduction to Programming	5
		Total	**18**

18 credits are required for the Certificate

SURGICAL TECHNOLOGY: SCC

Surgical Technology
Associate in Applied Science

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) 9355 113th St. N. #7709; Seminole, FL 33775; (707) 210–2350 www.caahep.org.

Admission Requirements:

- High school diploma or GED certificate
- Appropriate math score
- Self–place into English
- Computer skills required
- Active e–mail account required
- Prerequisites: BIOL 160, MATH 71 or MATH 87, CIS 110

Pre–program waitlist requirement:
Prior to acceptance on the Surgical Technology program waitlist, students must complete a satisfactory criminal background check (completed annually). This process is completely online and can be done through True–Hire at https://true–hire.com/SCCPreSurgicalTechnology. Enter your information as directed in the link. Please carefully enter all information, especially your driver's license number and social security number. On the last page, you will be asked for the credit card payment information. The background check will cost $39, provided that all information given is correct. If an incorrect driver's license number or social security number is provided we will reach out to you for the correct number and this will be an additional charge of $25 to run the correct information.

- 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 waitlist.
- 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.

Prerequisites

BIOL&	160	General Biology w/Lab	
CIS	110	Introduction to Computer Applications	
MATH	87	Algebra for Math Literacy I [1]	

First Quarter

BIOL&	160	General Biology w/Lab	5
CIS	110	Introduction to Computer Applications	5
MATH	87	Algebra for Math Literacy I [1]	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1	5
CMST&	210	Interpersonal Communication [2]	5
HED	125	Medical Terminology	5
SURG	100	Introduction to Surgical Technology	2
SURG	105	Blood-borne Pathogens and HIV/AIDS	1
		Total	**18**

Third Quarter

BIOL&	242	Human A & P 2	5
ENGL&	101	English Composition I	5
SURG	107	Surgical Environment	3
SURG	120	Disease Transmission and Control	3
		Total	**16**

Fourth Quarter

HED	109	Human Physiology and Disease	5
PHARM	115	Mathematics for Pharmacy Technicians	5
SURG	101	Surgical Procedures	5
SURG	104	Central Service Clinical	1
SURG	111	Technical Skills I	4
		Total	**20**

Fifth Quarter

SURG	202	Surgical Procedures	6
SURG	212	Technical Skills II	4
SURG	254	Operating Room Practicum	2
		Total	**12**

Sixth Quarter

SURG	203	Surgical Procedures	4
SURG	206	Perioperative Care of the Patient	4
SURG	255	Operating Room Practicum	5
		Total	**13**

Seventh Quarter

SURG	250	Surgical Seminar	3
SURG	256	Operating Room Practicum	10
		Total	**13**

107 credits are required for the Associate in Applied Science

1 MATH 87 may be substituted with MATH 71.

2 CMST& 210 is a required course. No course exceptions will be made for this course.

VASCULAR TECHNOLOGY: SCC

Vascular Technology
Associate in Applied Science

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.

The Vascular Technology program is 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), JRC–CVT, 6 Pine Knoll Drive, Beverly, MA 01915–1425; (978) 456–5594.

Students within the Vascular Technology program are required to complete a six month, full–time clinical internship. As clinical space is limited in Spokane and the surrounding area, the student may be required to complete their internship in an out–of–town and/or out–of–area medical center.

Admission Requirements:

- Vascular Technology courses are limited to students of the Vascular Technology program
- Active email account recommended
- Appropriate math score
- Self–place into English
- A 2.5 grade in each prerequisite course is required.
- Completion of all math and science prerequisites within the last five years to ensure current competency in content.
- Admission to the Vascular Technology program is competitive and based on panel interview, pre–requisite course GPA, additional math, science, and healthcare–related coursework, quality of reference letters, and completion of 40 hours volunteerism in healthcare and ultrasound.
- A 2.0 (79%) grade must be maintained quarterly in every course before proceeding to the next quarter.
- A national background check is conducted 1st and 4th quarters of the program
- Immunizations, current healthcare provider CPR, and 7–hour bloodborne pathogen training are required prior to the clinical internship in the 4th quarter
- Selective clinical sites require a ten–panel drug screen within 30 days of clinical internship
- Return to the program is based on "space available" and requires remedial work to demonstrate knowledge base appropriate with program re–entry point.
- After re–entry, students may only repeat a class one time. A repeat of courses must be completed within two years.

Admission Recommendations:

- Computer skills are recommended
- Some students find completion of CHEM 120 Organic and Biochemistry for Health Sciences, and CHEM 121 helpful to learning in the program
- Additional healthcare related courses such as HED 129, or nursing assistant coursework

After entering the Vascular Technology program, students are required to maintain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students need to realize that clinical site placement could require relocation outside of the immediate Spokane area for 9 months.

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
HED	109	Human Physiology and Disease
HED	125	Medical Terminology
MATH&	146	Introduction to Stats
PHYS	100	Introductory Physics

First Quarter

BIOL&	160	General Biology w/Lab	5
HED	109	Human Physiology and Disease	5
MATH&	146	Introduction to Stats [1]	5
		Total	**15**

Second Quarter

BIOL&	241	Human A & P 1	5
ENGL&	101	English Composition I	5
HED	125	Medical Terminology	5
		Total	**15**

Third Quarter

BIOL&	242	Human A & P 2	5
CMST	127	Leadership Development	5
PHYS	100	Introductory Physics	5
		Total	**15**

Fourth Quarter

VASC	100	Introduction to Echo and Vascular	2
VASC	105	Introductory Echocardiographic Technical Skills	1
VASC	112	Vascular Fundamentals	3
VASC	115	Vascular Fundamentals Technical Skills	2
VASC	118	Cardiovascular Physiology I	2
VASC	125	Ultrasound Physics and Instrumentation I	5
VASC	213	Electrocardiography	3
VASC	214	Electrocardiography Lab	1
		Total	**19**

Fifth Quarter

VASC	121	Technical Skills/Vasc Procedures I	2
VASC	122	Vascular Procedures I	3
VASC	130	Echo Fundamentals Lab	2
VASC	133	ECHO Fundamentals	4
VASC	135	Ultrasound Physics and Instrumentation II	5
VASC	138	Cardiovascular Physiology II	3
		Total	**19**

Sixth Quarter

VASC	131	Core Concepts in Vasc	2
VASC	132	Vascular Procedures II	5
VASC	134	Vascular Technical Skills I	4
VASC	136	Comparative Imaging Analysis	3
VASC	142	Survey of Diagnostic Medical Sonography	3
		Total	**17**

Seventh Quarter

VASC	139	Surgical Asepsis	1
VASC	140	Technical Skills/Surgical Asepsis	1
VASC	251	Vascular Technical Skills	5
VASC	254	Vascular Clinical Preparation	4
VASC	255	Research Methods and Biostatistics	3
		Total	**14**

Eighth Quarter

VASC	252	Advanced Vascular Techniques	4
VASC	253	Vascular Clinical I	10
VASC	256	Cardiovascular Pathophysiology	1
		Total	**15**

Ninth Quarter

VASC	262	Vascular Clinical II	14
VASC	263	Vascular Seminar and Registry Preparation I [2]	1
		Total	**15**

Tenth Quarter

VASC	272	Vascular Clinical III	14
VASC	273	Vascular Seminar and Registry Preparation II [2]	1
		Total	**15**

159 credits are required for the Associate in Applied Science

1 Or any counselor approved 100 level math course.

2 VASC 263 and VASC 273 will be active courses beginning Fall 2024.

WATER SCIENCE: SCC

Water and Wastewater Certificate
Certificate

The Water Science program is designed to prepare students for employment in water resources, including water and wastewater operations, hydrology and water quality for local, state and federal agencies, and private industry.

This certificate is embedded in the Water Science AAS. Transfer students should work with faculty to ensure all courses align with requirements for the Bachelor of Science or Arts with Eastern Washington University's Geoscience degree. Please work with your program faculty before enrolling in required courses.

First Quarter

NATRS	112	Natural Resources Mathematical Applications	5
NATRS	120	Basic Computer Applications in Natural Resources	2
WATER	128	Occupational Preparation and Experience	1
WATER	131	Hydrologic Field Projects [1]	1
WATER	209	Water Quality	5
		Total	**14**

Second Quarter

ENGL&	101	English Composition I [2]	5
ENVS	234	Applied Research in Water/Wastewater Operations	3
WATER	109	Introduction to Water Resources	5
WATER	132	Hydrologic Field Projects [1]	1
		Total	**14**

Third Quarter

ENVS&	101	Intro to Env Science	5
WATER	135	Intro to Water and Wastewater	3
WATER	210	Hydrologic Measurement	3
WATER	212	Water Law & Policy	5
		Total	**16**

44 credits are required for the Certificate

1 Students are required to complete a minimum of 2 of the 6 hydrologic projects (WATER 131, 132, 133, 231, 232, 233)

2 May be substituted with WATER 120.

Water Science
Associate in Applied Science

The Water Science program is designed to prepare students for employment in water resources and environmental sciences, including water and wastewater operations, stormwater management, and hydrology, water rights and water quality for local, state and federal agencies, non–profits and private industry. Students can complete the program on ground or remotely.

Students completing the Water Science AAS degree can earn a BA or BS degree in Geosciences at Eastern Washington University in 2 years under a 2+2 direct transfer agreement.

First Quarter

NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
WATER	128	Occupational Preparation and Experience	1
WATER	131	Hydrologic Field Projects	1
WATER	209	Water Quality	5
		Total	**14**

Second Quarter

ENGL&	101	English Composition I [2]	5
NATRS	204	Maps and Aerial Photo Interpretation [3]	5
WATER	109	Introduction to Water Resources	5
WATER	129	Occupational Preparation and Experience	1
WATER	132	Hydrologic Field Projects	1
		Total	**17**

Third Quarter

ENVS&	101	Intro to Env Science	5
ENVS	235	Applied Research in Watershed Restoration [4]	3
WATER	135	Intro to Water and Wastewater	3
WATER	205	Differential Leveling	3
WATER	210	Hydrologic Measurement	3
		Total	**17**

Fourth Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
ENVS	226	Fisheries Techniques [5]	4
ENVS	234	Applied Research in Water/Wastewater Operations [4]	3
WATER	208	Water Data and Records Analysis	3
WATER	228	Occupational Preparation and Experience	1
		Total	**16**

Fifth Quarter

ENVS	233	Applied Research in Water Quality [4]	3
NATRS	221	Applications in Geographic Information Systems	4
WATER	110	Hydrogeology [6]	5
WATER	229	Occupational Preparation and Experience	1
		Total	**13**

Sixth Quarter

ENVS	211	Weather and Climate	5
WATER	212	Water Law & Policy	5
		ENVS 231 or 235	3
		Total	**13**

90 credits are required for the Associate in Applied Science

ENVS 231 or 235

ENVS	231	Applied Research in Geographic Information Systems	3
ENVS	235	Applied Research in Watershed Restoration	3

1 May be substituted for MATH& 142 for students transferring to EWU for the Geosciences program. Prerequisites apply.
2 May be substituted with WATER 120
3 May be substituted with GEOL& 100
4 Students are required to complete a total of 12 credits of any combination of Applied Research courses (ENVS 231, 232, 233, 234, 235).
5 May be substituted with WATER 291
6 May be substituted with ENVS 210

Water Science Geographic Information Systems Certificate

The Water Science GIS certificate is designed to prepare students for entry–level GIS positions in water and environmental science–related fields. Students gain hands–on experience applying Geographic Information Systems technology to real–world, current issues in environmental sciences. Students learn how to complete field surveys, make related fundamental measurements, and perform numerical and spatial analyses. Professional mapping products and professional reports are created using research, direct communication with stakeholders, and applications of GIS software.

Water Science Geographic Information Systems

First Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources [1]	5
NATRS	112	Natural Resources Mathematical Applications [2]	5
NATRS	120	Basic Computer Applications in Natural Resources [3]	2
		Total	**12**

Second Quarter

NATRS	204	Maps and Aerial Photo Interpretation [4]	5
NATRS	221	Applications in Geographic Information Systems [5]	4
		Total	**9**

Third Quarter

ENVS	231	Applied Research in Geographic Information Systems	3
ENVS	235	Applied Research in Watershed Restoration [6]	3
		Water Science Electives [7]	3
		Total	**9**

30 credits are required for the Certificate

Water Science Electives

ENVS	232	Applied Research in Hydrology	3
ENVS	233	Applied Research in Water Quality	3
ENVS	234	Applied Research in Water/Wastewater Operations	3
WATER	135	Intro to Water and Wastewater	3
WATER	205	Differential Leveling	3
WATER	210	Hydrologic Measurement	3

1 ENVS 220 must be completed with a 2.0 or higher.
2 NATRS 112 must be completed with a 2.0. May be substituted with MATH& 142 for students transferring to Geoscience at EWU, prerequisites apply.
3 May be substituted with AGHRT 126
4 May be substituted with GEOL& 100.
5 NATRS 221 must be completed with a 2.0 or higher.
6 May be substituted with Water Science Electives or similar course approved by the instructional dean.
7 Elective may be taken during any quarter

WELDING AND FABRICATION: SCC

Welding and Fabrication Certificate

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.

Students must complete a minimum of 57 credits through coursework or prior learning experience in order to graduate. Normal sight, depth perception, and physical dexterity are required.

First Quarter

APLED	123	Leadership Skills for Business and Industry [1]	4
WELD	113	Welding Math	1
WELD	114	Introduction to Blueprint Reading	2
WELD	115	Introduction to Fabrication	3
WELD	116	Shielded Metal Arc Welding Theory	3
WELD	117	Shielded Metal Arc Welding Applications [2]	7
		Total	**20**

Second Quarter

WELD	121	Intermediate Welding Math	1
WELD	123	Intermediate Blueprint Reading	2
WELD	124	Advanced Shielded Metal Arc Welding Theory	3
WELD	125	Advanced Shielded Metal Arc Welding Applications [2]	1-7
WELD	126	Intermediate Fabrication	3

WELD	127	Fabrication Machine Operation	2
		Total	**12–18**

Third Quarter

APLED	125	Employment Preparation [1]	3
WELD	131	Advanced Welding Math	1
WELD	133	Advanced Blueprint Reading	2
WELD	134	Specialty Welding Theory	3
WELD	135	Specialty Welding Applications [2]	7
WELD	136	Advanced Fabrication	3
		Total	**19**

51-57 credits are required for the Certificate

Optional 4th Quarter [3]

WELD	143	Specialized Blueprint	2
WELD	144	Specialized Theory	3
WELD	145	Specialized Fabrication	3
WELD	146	Specialized Welding [2]	1-7

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 WELD 117, 125, 135, & 146: 1–7 credits may be applied using prior learning experience.

3 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.

Program / Course Abbreviations

ABF	Automotive Collision and Refinishing Technician
ACCT	Accounting
AGGEN	Agriculture, General
AGHRT	Agriculture/Horticulture
AIRC	Heating, Ventilation, Air Conditioning and Refrigeration
ANTH	Anthropology
APLED	Applied Education
APM	Aerospace Apprenticeship
AQUAT	Aquatics
ARCFT	Aviation Maintenance Technology
ARCHT	Architectural Technology
ART	Art
AS	Addiction Studies
ASL	American Sign Language
ASTR	Astronomy
AUDIO	Audio Engineering
AUTO	Automotive Technology
AVIO	Avionics
BAK	Baking: Professional Pastries and Specialty Cakes
BIOEQ	Biomedical Equipment Technician
BIOL	Biology
BMGT	Business Management
BOT	Botany
BT	Business Technology
BUS	Business, General
CAD	CAD Design and Drafting
CAPPS	Computing-Computer Applications
CARPN	Carpentry Apprenticeship, AGC
CATT	Computer Application Technology Training
CHEM	Chemistry
CHIN	Chinese
CIS	Computer Information Systems
CJ	Criminal Justice
CMST	Communication Studies
COOP	Cooperative Education
COS	Cosmetology
CRST	Career Studies
CS	Computing-Computer Science
CUL	Culinary Arts
CYBR	Cybersecurity
DENT	Dental Assisting
DRMA	Drama
DVOP	DevOps Engineering
ECED	Early Childhood Education
ECHO	Echocardiography
ECON	Economics
EDT	Engineering Design Technology
EDUC	Education Paraeducator
EFDA	Expanded Function Dental Auxiliary
ELECT	Electronics Engineering Technician
ELMT	Electrical Maintenance and Automation
EMS	Emergency Medical Services
ENGL	English
ENGR	Engineering
ENVS	Environmental Sciences
FILM	Film
FLPT	Industrial and Manufacturing Technology (Colville)
FMT	Health/Fitness Technician
FRCH	French
FS	Fire Science Technology
FYE	First Year Experience
GENST	General Studies
GEOG	Geography
GEOL	Geology
GOVT	Government, Student
GRDSN	Graphic Design
GUID	Guidance
HED	Health Education
HEQ	Diesel/Heavy Duty Equipment
HIM	Health Information Management
HIS	Hearing Instrument Specialist
HIST	History
HLTH	Health
HM	Hotel and Restaurant Management
HUM	Humanities
IBH	Integrated Behavioral Health
ICS	Integrated Community Services
ICT	Invasive Cardiovascular Technology
IMMA	Industrial Maintenance Mechanic
INTDS	Interior Design
IS	Computing-Information Systems
ISIT	Information Systems and Technology
ITP	Interpreter Training Program
JAPN	Japanese
JOURN	Journalism
LA	Paralegal
LMLIB	Library and Information Services
LOG	Logistics Specialist Apprenticeship
MA	Medical Assistant
MACH	Machinist/CNC Technology
MATH	Mathematics
MEAT	Meatcutter Apprenticeship
MIS	Management Information Systems
MMGT	Management
MSEC	Medical Office Specialist
MUSC	Music
MUSPL	Music Private Lessons
NATRS	Natural Resource Management
NURS	Nursing
NUTR	Nutrition
OCEA	Oceanography
OR-PR	Orthotic-Prosthetic Technician
OS	Operation Specialist Apprenticeship
OTA	Occupational Therapy Assistant
PE	Physical Education
PHARM	Pharmacy Technician
PHIL	Philosophy
PHOTO	Photography
PHYS	Physics
PMF	Precision Metal Fabrication
PN	Practical Nursing
POLS	Political Science
PSYC	Psychology
PTA	Physical Therapist Assistant
RAD	Radiology Technology
ROBO	Robotics Mechatronics Technology
RT	Respiratory Care
SAL	Salish
SOC	Sociology
SONO	Diagnostic Medical Sonography
SPAN	Spanish
SURG	Surgical Technology
UTIL	Utility Construction
VASC	Vascular Technology
WATER	Water Resources Technology
WELD	Welding and Fabrication

Course Descriptions

For the most current information on individual courses, view our programs online at:
https://catalog.spokane.edu/CoursesAndPrograms/Default.aspx

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 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 or permission of instructor. (SCC)

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. (SCC)

ACCT 140 - QuickBooks (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. (SFCC)

ACCT 141 - QuickBooks Online (5 cr)
This course offers a practical approach to computerized accounting using QuickBooks Online. 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 transfer students. (SCC)

ACCT 142 - QuickBooks Desktop (5 cr)
This course offers a practical approach to computerized accounting using QuickBooks Desktop. 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 transfer students. (SCC)

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)

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)

ACCT 161 - Payroll Procedures (5 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: ACCT 141, ACCT 151, ACCT& 201, or permission of instructor. (SCC)

ACCT 162 - Business Tax Accounting (2 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: ACCT 141, 151, ACCT& 201, or permission of instructor. (SCC)

ACCT 170 - Introduction to Financial Accounting (5 cr)
The course covers the fundamentals of financial accounting with an emphasis on business applications. Topics include a summary of financial accounting principles and processes, the balance sheet, the income statement and an introduction to financial analysis and planning including financial ratios and income statement forecasting. The course will provide a foundational understanding of accounting that can be applied to reading a balance sheet and an income statement and used to conduct a basic level of financial statement analysis. Prerequisite: BUS 123. (SFCC)

ACCT& 201 - Principles 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 - Principles 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 - Principles 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: SCC: ACCT& 201 or permission of instructor; SFCC: ACCT& 202 with 2.0 or better, 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)
Students learn a more in depth study of specific topics including accounting for property, plant and equipment (fixed assets), natural resources, intangible assets, accounting issues of partnerships, corporations, statements of cash flows, financial statement analysis and managerial accounting. Financial statement preparation and analysis are emphasized. This course does not fulfill requirements for accounting transfer students. Prerequisite: ACCT 152 or ACCT& 202. (SCC)

ACCT 221 - Tax I: Individual Income Tax (5 cr)
This course covers the tax concepts that affect most individuals. At the completion of this course, students will be able to prepare a 1040EZ, 1040A, and 1040 form using Federal tax forms and/or tax software. Students will recognize the social, economic, and political factors that Congress considers when they create tax law. Students will also be able to utilize tax planning skills for preparing current and future tax returns. (SCC)

ACCT 222 - Tax II: Taxation of Corporations, Partnerships and S Corps (5 cr)
This course introduces the tax issues facing corporations, partnerships, and S corporations. This course emphasizes the tax code and regulations that relate to these entities, and it examines the transactions that most commonly affect them. In addition, this course assists students in preparing to sit for the IRS Enrolled Agent Exam. Prerequisite: ACCT 221. (SCC)

ACCT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

ACCT 320 - Accounting and Finance for Managers (5 cr)
This course covers accounting theory, accounting language, and financial management principles with an emphasis from a manager's perspective. Topics include: balance sheets, income statements, and statements of cash flows, financial statement analysis, cost behavior, capital budgeting, analysis of financial statements for planning and control, cash and capital budgeting, risk and return, capital structure, time value of money, and financing for both short and long-term requirements. Each student will complete a project designed to integrate course topics into a business project. Prerequisite: MATH& 146 and acceptance into an SFCC BAS degree program. (SFCC)

ADDICTION STUDIES

AS 131 - Survey of Addictions (5 cr)
This introductory course explores the nature and scope of alcohol/drug use, abuse, and addiction as well as problems with compulsive behaviors. Basic drug categories and effects are studied. The evolution of social policy, culture, and impacts upon vulnerable populations and the prevention, intervention and treatment are discussed. The basic steps necessary to become a Chemical Dependency Professional in the state of Washington are described. (SFCC)

AS 141 - Law, Ethics, and Professional Development for Addiction Counseling (5 cr)
This course is designed to meet the Chemical Dependency Professional educational requirements regarding legal, ethical, and professional development outlined in WAC 246-811-030 (2) (s) through (w). The framework for this course will examine federal and State of Washington rules and regulations. Professional organizations licensing/certification and agency policy and procedures will be explored to demonstrate the laws, ethics, and professional practice within the addictions profession. (SFCC)

AS 172 - Family Systems and Adolescent Treatment in Addictions (5 cr)
This course will examine competencies outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA), which specifically involve the family and other systems in the addiction treatment process. This course will also examine adolescent treatment issues in the context of family systems and the dynamics of addiction. An overview of Structural, Functional, and System approaches will be explored, including family roles and the interrelationship between family dynamics, multi-generational transmission, and developmental information will be applied to the treatment of addictions. Evidence based treatment models for families and adolescents will be emphasized. (SFCC)

AS 176 - Addiction 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. (SFCC)

AS 182 - Cultural Diversity; Risk Intervention for Health/HIV (5 cr)
This course provides foundational information about multicultural perspectives as well as culturally sensitive counseling dynamics. The emphasis will be on the development of knowledge and skills regarding addiction and health concerns, appropriate intervention and treatment methodologies for working in a diverse society. This course will also focus on preventing infectious diseases and how to address and support individuals with infectious diseases, particularly HIV. A primary critical task is the examination of one's own attitudes and values. (SFCC)

AS 221 - Treatment Theories for Addictions (5 cr)
This course addresses the constructs, underlying principles, theories, practices and desired outcomes of the most generally accepted and scientifically supported models of treatment for addiction and other substance related problems. (SFCC)

AS 250 - NAADAC Exam Prep (1 cr)
This course is designed to prepare students for the national exam required to become a Substance Use Disorder Professional once they have fulfilled other supervision and education requirements. Students will take the NAADAC exam as a requirement for this course, but are not required to pass the exam to complete the course. (SFCC)

AS 275 - Physiological Actions of Alcohol and Drugs (5 cr)
This is a review of the pharmacology of psychoactive drugs. It is a research-based study of all categories of mind-altering substances. (SFCC)

AS 277 - Group Facilitation for Addiction Treatment (5 cr)
This course is designed to offer students the basic knowledge and practice to facilitate group counseling within the addiction treatment population. A variety of group methods and research will be explored with an emphasis on evidenced based practices. (SFCC)

AS 279 - Case Management I: Screening, Diagnosis, Assessment, and ASAM (5 cr)
The course introduces records management paperwork and application of confidentiality laws, such as CFR 42, and HIPAA laws, which is essential for beginning case managers when entering into the field of addictions. Students will practice diagnosis, placement, and referral of patients through the applications of case studies. This beginning course will prepare the students as they move into Case Management 2. (SFCC)

AS 280 - Case Management 2: Treatment Planning and Continuing Care (5 cr)
Students will utilize the patient information for the case studies they developed in Case Management I to gain knowledge of the process of clinical admittance of patients, the principles of working with Community partners for continuation of care, and the development of patient-centered treatment and continuing care plans. Prerequisite: AS 279 or equivalent. Instructor approval required for equivalent. (SFCC)

AS 281 - Practicum I (5 cr)
The class provides practical experience which complements the Addiction Studies program's conceptual and classroom experience. Students may explore a variety of agencies to prepare for employment and may include state-approved treatment and community agencies which address addiction through a variety of interventions. Students will apply with agencies and interview with sites open to student placement. Students will observe and participate in agency programs, practice professional behavior and learn about the organizational dynamics of treatment and community agencies. This course should be taken in the latter half -to the end of a student's program, or earlier with the consultation from faculty. 132 hour practicum in an approved setting is required. (SFCC)

AS 282 - Practicum II (5 cr)
This Practicum builds on competencies, skills and knowledge learned in Practicum I. Students strengthen their capacity to function as professionals by demonstrating consistency in meeting professional competencies. Specific proficiencies, skills, levels of involvement with clients or patients, and scope of practice will vary dependent on the agency and background of the student. This course should be taken in the latter half -to the end of a student's program, or earlier with the consultation from faculty. 132 hour practicum in an approved setting is required. Prerequisite: AS 281 or concurrent enrollment in AS 281. (SFCC)

AS 287 - Survey of Addiction Alternative Training (3 cr)
This introductory course explores the nature and scope of alcohol/drug use, abuse, and addiction as well as problems with compulsive behaviors. Basic drug categories and effects are studied. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 288 - Law and Ethics for Addiction Alternative Training (2 cr)
This course is designed to meet the Chemical Dependency Professional educational requirements regarding Washington State and Federal legal and ethical requirements outlined in WAC 246-811-030 (2) (s) through (w). Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 289 - Pharmacological and Physiological Actions of Alcohol and Other Drugs Alternative Training (3 cr)
This course presents the pharmacology and physiology of psychoactive drugs. It is a research-based study of mind-altering substances. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 290 - Co-Occurring Behavioral Health Disorders (5 cr)
The Co-Occurring Behavioral Health Disorders class will focus on clients who have one or more disorders relating to the use of drugs or destructive compulsive behaviors as well as one or more mental health disorders. This class will provide an overview of diagnostic criteria, assessment, medication, specific mental disorders, and the need for linkage between the mental health services system and substance abuse treatment with the goal of dual recovery. (SFCC)

AS 294 - Family and Adolescent Treatment of Addictions Alternative Training (2 cr)
This course presents an overview of Structural, Functional, and System approaches to counseling families with addictions. The treatment of Adolescents with addictions is also studied with emphasis on evidenced based treatment models. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 295 - American Society of Addiction Medicine Alternative Training (3 cr)
This course examines The American Society of Addiction Medicine (ASAM) criteria, the most widely used guidelines for assessment, service planning, placement, continued stay and discharge of patients with addictive disorders. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 296 - Treatment of Addictions Individual and Group (2 cr)
This course will examine Treatment of Addictions including individual and group approaches. The evidenced based treatment methods will be focused upon with special emphasis on competencies outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA). This course meets the requirements for Alternative Training WAC 246-811, areas Treatment of Addiction: Individual and group treatment for addiction counseling. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AEROSPACE APPRENTICESHIP

APM 101 - Precision Machining I (5 cr)
Fundamental manual machining skills and knowledge required for machining and advanced manufacturing success. Includes advanced manufacturing, standardized manufacturing in aerospace, job plans and drawings, precision tolerances, application and use of manual tools including saws, drills, lathes, mills, and grinders. Covers basic materials identification, offload and secondary bench operations, sawing material with excess, part finishing utilizing filing, deburr and rotary tools, part marking (steel stamping), threading by hand and hole finishing. (SCC)

APM 102 - Precision Machining II (5 cr)
Introduction to precision machining in the shop environment with a focus on basic manual machining techniques, including speeds and feeds, on a milling machine, drill press and lathe. Identification and use of cutting tools, radius gauges and precision measuring tools. Students will examine tooling theory and learn to select proper measuring tools, including tooling point fixtures and 3,2,1 tooling, tram milling machine head, dial in vise, dial in holes, dial in four jaw chuck and tail stock. Principles of climb and conventional milling and causes of chatter will be explored. Emphasis on shop safety, following a job plan, and using measurement tools and various cutters to produce machined metal parts. Use of personal protection equipment and practice in tool safety. (SCC)

APM 103 - Engineering Drawings (5 cr)
Interpretation and application of technical drawings, including drawing zones, the relationship of detail, standard, section and auxiliary views. Students will learn linear dimensioning, tolerancing, lines, symbols and 3rd angle projection. Students will delve into scales, datums and orthographic projection, as well as examine and understand parts lists and how to navigate and utilize process specifications. Instruction includes interpreting mechanical/manufacturing blueprints per American Society of Mechanical Engineers Y14 Standards (2009). Emphasis on practical applications of this standard as applied to reading and interpreting engineering production drawings and updates. (SCC)

APM 121 - Shop Algebra (5 cr)
This course covers the properties of real numbers, simplifying expressions and solving equations and proportions. It also covers the manipulation of algebraic formulas and their applications to shop problems such as calculation of cutting speed, rpm and cutting time. (SCC)

APM 122 - Applied Geometry and Trigonometry (5 cr)
Students will build on the knowledge of mathematics skills learned in applied shop algebra to develop a working knowledge of geometry and trigonometry as it relates to aerospace and advanced manufacturing. This course focuses on the fundamentals and applications of geometry and trigonometry. Topics include perimeters, area and volume, trigonometric ratios and function, and right angles and non-right angles. Students will learn relationships of lines, planes, angles, congruent and similar triangles, polygons and circles. Additional topics include special triangles and the Pythagorean Theorem. (SCC)

APM 123 - CNC Operation and Setup (5 cr)
This course introduces basic CNC machine setup processes used on the mill and the lathe. Topics covered will include reading basic G & M codes, calculating work offsets, building tools, and setting tool offsets. Special emphasis will be on machine awareness and crash prevention. (SCC)

APM 201 - GD&T (5 cr)
This course introduces apprentice machinists to principles of Geometric Dimensioning and Tolerancing (GD&T) governed by the ASME Y14.5 standard. Apprentices will learn to identify and interpret each of the GD&T controls for form, profile, orientation, location, and runout. Apprentices will learn to interpret symbols, datums, basic dimensions, material condition modifiers, and other GD&T concepts that are essential for the machinist. Hands-on activities will emphasize interpreting GD&T found on engineering drawings, as well as the setup, measuring, and inspection of a part or features with geometric tolerancing. (SCC)

APM 202 - CNC Programming Mill (5 cr)
Apprentices will process the theory behind programming for the CNC Mill. They will be able to write simple commands and basic programs for using G & M codes. They will learn to verify programs and identify various syntax and logical problems in programming codes. (SCC)

APM 203 - CNC Programming Lathe (5 cr)
Apprentices will process the theory behind programming for the lathe. They will be able to write simple commands and basic programs for using G & M codes. They will learn to verify programs and identify various syntax and logical problems in programming codes. (SCC)

APM 221 - Materials, Processes, and References (5 cr)
In this course, apprentices will explore metallurgy, material properties and characteristics, related standards, and processes commonly used to manipulate materials. Apprentices will begin by learning about material composition and characteristics of the five basic metals: steel, stainless steel, cast iron, aluminum, and brass (copper). This course will then explore manufacturing processes used to manipulate metals, such as machining, casting, and forging, as well as processes that change their chemical composition, including heat treatment. The apprentices will also learn about and practice inspection techniques such as hardness testing and non-destructive testing (NDT) techniques with modern equipment. Hands-on the project for this course includes materials testing, heat treatment, case hardening, casting, and material sample identification projects. Throughout the course, apprentices will research materials and processes in a shop reference, Machinery's Handbook. (SCC)

APM 222 - Inspection (5 cr)
Delivering quality efficiently is the key to strong manufacturing. To be competitive, today's machinist must be able to effectively inspect parts in the shop with a variety of methods and instruments. This course focuses on the science and skill of measuring and inspection. They will learn to verify dimensions of size and position, surface finish, material hardness, threads, and other important elements. Apprentices will have hands-on practice using a variety of measuring instruments such as micrometers, calipers, precision gages and coordinate measuring machines (CMMs). Apprentices will also learn techniques for inspection planning, first article inspection, in process inspection, and statistical process control. Instructors will reinforce the theory and technique of accuracy, precision and repeatability to help students develop an uncompromising attitude towards good inspection technique. (SCC)

APM 223 - Advanced Machining Technology (5 cr)
Introduction to advanced machining technologies, including laser cutting, Electrical Discharge Machining (EDM), and water jet cutting. Identification of, and the characteristics of, parts manufactured by advanced machining technologies. Reading and understanding advanced machining manuals. (SCC)

AGRICULTURE, GENERAL

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 156 - Equipment Operation and Maintenance (2-5 cr)
Safety, operation and preventive maintenance of engines and equipment used in Environmental Science occupations are emphasized. Use of two-and four-cycle small engines is included. Students learn to operate a variety of small tractors and landscape equipment. Students learn safe truck and trailer operation, backing, and maneuvering through obstacles. Students are required to hold a valid driver's license in order to enroll in the course. (SCC)

AGRICULTURE/HORTICULTURE

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 (2-4 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 on-campus 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 109 - Introduction to Vegetable Gardening (1-3 cr)
Students are introduced to vegetable gardening practices as they relate to our climate. Topics covered include season extenders, planning, soil preparation, planting time, acclimation, and sustainable gardening practices. (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 115 - Pruning (2-3 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 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 184 - AgHort Occupational Preparation (1-3 cr)
Students learn about career opportunities in the fields of Agriculture and Horticulture. They will attend and participate in conferences and workshops associated with their chosen career field as available. They will continue to lean and practice leadership skills through service learning and other community service activities. (SCC)

AGHRT 185 - AgHort Occupational Preparation (1-3 cr)
Students learn about career opportunities in the fields of Agriculture and Horticulture. They will also find out their learning style and learn about scholarships and campus resources to help them succeed in school. They will learn and practice leadership skills through service learning and other community service activities. (SCC)

AGHRT 195 - Practicum (2-3 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 (4-5 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 (4-5 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: Permission of instructor. (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 (4-5 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 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 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. (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 104 or permission of instructor. (SCC)

AGHRT 228 - Arboriculture (5 cr)
This course has been designed to teach students the concepts and terminology related to woody plant structure and form, and how plants interact with the urban environment. Students will learn how to select plant materials, how to properly plant and maintain them. Students will learn how to diagnose tree pests and other problems and procedures to mitigate or remedy these problems. The course is intended to provide training to help students prepare for the International Society of Arboriculture Certified Arborist Exam. (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 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 (2-3 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 235 - Advanced Arboriculture (5 cr)
Students gain an understanding of the advanced theory and practical application of tree and shrub care. Course emphasis is on understanding the why, how to, and the resulting effects of various tree care and removal practices. Students will also learn how to assess plant damage, and how to care for damaged plants. Students will be exposed to and should acquire a basic understanding of industry practices common to Arborists and Urban Foresters. The course is intended to provide training to help students prepare for the International Society of Arboriculture Certified Arborist Exam. (SCC)

AGHRT 236 - Arboriculture Tools and Equipment (2 cr)
Students gain an understanding of the tools and equipment commonly used in the tree care industry. Course emphasis is on building familiarity with a variety of tools and equipment that Arborists use. Safe equipment setup and use will be emphasized. (SCC)

AGHRT 237 - Small Farm Production (5 cr)
Students gain an understanding of the advanced theory and practical application of small farm practices. Course emphasis is on understanding the why, how-to, and the resulting effects of various farming techniques, as well as small farm diversity and profitability. Students will learn the different methods of production through lecture and laboratory. (SCC)

AGHRT 238 - Small Farm Marketing (3 cr)
This course is designed to teach students the concepts and terminology related to marketing for small farms. Students will learn how to determine market potential, price farm products, and sell food products through various marketing channels. Furthermore, students will understand the benefits of values-based food systems, and learn the regulations associated with selling common farm products here in Washington State. (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)

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)
The second course in a three-course series of American Sign Language (ASL). Each of the classes (ASL&121, ASL&122 and ASL&123) are prerequisites to enter the Interpreter Training Program or can be taken for modern language credit. This course adds vocabulary development of at least 400 signs and their respective English glosses, requiring demonstrated use of receptive and expressive skills, as well as enhanced use and understanding of the grammatical structure of ASL. Additional aspects of deaf culture and community will be discussed. Prerequisite: ASL& 121 with a grade of 2.0 or higher, or permission of instructor. Students must pass this course with a 2.0 or higher to obtain the ITP AAS-T or ITP Certificate. (SCC, SFCC)

ASL& 123 - Am Sign Language III (5 cr)
The third course in a three-course series of American Sign Language (ASL). Each of the classes (ASL&121, ASL&122 and ASL&123) are prerequisites to enter the Interpreter Training Program or can be taken for modern language credit. This course increases vocabulary by introducing at least 400 new vocabulary words and their respective English glosses, advanced demonstration of receptive and expressive skills, enhanced use of appropriate grammatical features of ASL and additional cultural aspects of the deaf culture and community will be discussed. Prerequisite: ASL& 122 with a grade of 2.0 or higher, or permission of instructor. Students must pass this course with a 2.0 or higher to obtain the ITP AAS-T or ITP Certificate. (SCC, SFCC)

ASL& 221 - American Sign Language IV (5 cr)
The first course in a series of three American Sign Language (ASL) courses within the Interpreter Training Program (ITP). This course emphasizes expressive and receptive communication skills involving elementary school subjects and accompanying vocabulary of at least 400 words; demand-control schema and additional aspects of ASL grammatical features. Information about Roles and Responsibilities of educational interpreters will be incorporated and discussed in each task. Prerequisite: ASL& 123 with a grade of 2.0 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ASL& 222 - American Sign Language V (5 cr)
The second course in a series of three American Sign Language (ASL) courses within the Interpreter Training Program (ITP). This course incorporates expressive and receptive communication skills involving middle school subjects and accompanying vocabulary of at least 400 words; additional information about demand-control schema and aspects of ASL grammatical features. Information about Roles and Responsibilities of educational interpreters will be incorporated and discussed in each task. Prerequisite: ASL&221 with a grade of 2.5 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ASL& 223 - American Sign Language VI (5 cr)
The third course in a series of three American Sign Language (ASL) courses within the Interpreter Training Program (ITP). This course incorporates expressive and receptive communication skills involving high school subjects and accompanying vocabulary of at least 400 words; additional information about demand-control schema and aspects of ASL grammatical features. Information about Roles and Responsibilities of educational interpreters will be incorporated and discussed in each task. Prerequisite: ASL& 222 with a grade of 2.5 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ANTHROPOLOGY

ANTH& 100 - Survey of Anthropology (5 cr)
An introductory survey course of anthropology that examines the biology and cultures of humans through scientific and humanistic perspectives. This course explores anthropology as a four-field discipline, encompassing biological anthropology (primates, human biological diversity, paleoanthropology), archaeology (ancient cultures), cultural anthropology (contemporary cultures and cultural diversity), and linguistic anthropology (language and communication). (SCC, SFCC)

ANTH& 204 - Archaeology (5 cr)
Archaeology is the study of the cultural past of humankind primarily through the location, examination, and interpretation of material remains. Using a highly interdisciplinary perspective, this course investigates the nature of archaeological evidence, research by selected archaeologists, and archaeological theories to reconstruct past life, events and cultures. This course also explores the social relevance of archaeology to today's world. (SFCC)

ANTH& 205 - Biological Anthropology (5 cr)
Introduces the anthropological study of how human biological characteristics arose and how the human species continues to be shaped by evolutionary forces. Major topics include the exploration of human genetics, biological adaptation and variation, human origins, evolutionary principles, comparative primate behavior and morphology, and applied biological anthropology. (SFCC)

ANTH& 206 - Cultural Anthropology (5 cr)
This course explores the concept of culture through a comparative study of both traditional and contemporary peoples across the globe. Topics such as social organization, power and politics, technology, economics, religion and ritual, expressive culture, ethnicity, and sex and gender are examined through the combination of the holistic perspective and cultural theory. (SFCC)

ANTH& 210 - Indigenous Peoples of North America (5 cr)
This course is an introduction to the diverse Indigenous cultures of North America north of Mexico from pre-European contact to the present. Emphasizing a four-field anthropological framework, this course examines aspects of Indigenous culture such as environmental adaptations, religious-ideological systems, kinship systems, and social identity. (SFCC, SCC)

ANTH 221 - Stone Age Survival (5 cr)
Introduction to experimental archaeology through the exploration of different forms of technology used throughout prehistory. The opportunity to practice making and using primitive tools is an integral part of this course. (SFCC)

APPLIED EDUCATION

APLED 102 - Technical Education Navigation and Strategies for Success (3 cr)
This course is designed to assist incoming students interested in careers within the technical education division through a guided, hands-on exploration of fifteen Tech Ed programs. It incorporates an overview of campus resources and emphasizes communication skills, time management skills, and other strategies to promote academic success. Students also develop an educational plan in pursuit of a certificate or associate degree. (SCC)

APLED 112 - Applied Mathematics (2-5 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. Prerequisites: Guided Self-Placement. (SCC)

APLED 113 - Introduction to Computers for Technology (2-5 cr)
Students will learn industry-specific micro computer concepts and applications for their unique program of study. This course of study will include general technology as well; however, the majority of the course is focused on the actual industry typical use and need. Prerequisite: Guided Self-Placement. (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. Prerequisite: Guided Self-Placement (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. Prerequisite: Guided Self-Placement. (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 or ENGL& 101 and fifth or sixth quarter standing. Appropriate placement scores or permission of instructor. (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 120 - Aquatic Activities I (2 cr)
Aquatic Activities is designed to introduce the student to various aquatic sports, advance their skills in aquatic activities, and develop lifelong health and wellness behaviors. (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. Non-swimmers, as well as swimmers, benefit from this course. (SCC)

AQUAT 220 - Aquatic Activities II (2 cr)
Aquatic Activities is designed to introduce the student to various aquatic sports, advance their skills in aquatic activities, and develop lifelong health and wellness behaviors. This course also introduces the history of aquatic activity in the modern era. (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 (5 cr)
Two-and three-dimensional design and spatial studies; abstract studies in form, color and texture; introduction to architectural design processes; isometric and orthographic drawing; perspective, shade and shadow, lettering, and drafting techniques. (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 (5 cr)
Exploration of architecture, interior design, landscape architecture, engineering consulting and construction management through equity, environment, and economy; careers in the building design industry are considered. This course includes research methods, an overview of architectural history, and the development of written communication skills necessary in the professional office environment and academic arena. (SCC)

ARCHT 122 - Architectural Design 1 (7 cr)
In this introduction to architectural design focusing on composition, conceptual design and principles of organization, scale, proportion, rhythm, and 3-D development, students will learn the design process, analyze a project site and scope, evaluate the contributing design factors and follow the design process to create a design. Prerequisite: ARCHT 112 or permission of instructor. (SCC)

ARCHT 124 - Advanced Architectural Math (1-2 cr)
This course applies the mathematical concepts and principles introduced in ARCHT 114. The use of computers in numerical computation is emphasized. Construction cost estimating methods are examined. Prerequisite: ARCHT 114 or permission of instructor. (SCC)

ARCHT 125 - Residential Building Codes (2 cr)
Emphasis on basic graphic skills, design principles and design concepts for built environment design. Advanced exploration and communication of theories and concepts related to basic 2-dimensional and 3-dimensional principles of built space. (SCC)

ARCHT 126 - Introduction to Computer Aided Drafting (3-5 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 - Introduction to Construction Documents/CAD (8 cr)
Introduction to construction documents using CAD. Students will develop working drawings common in a set of residential construction documents. Students will learn common practices for CAD usage within a professional building design office to equip them for effective collaborative work. Prerequisite: ARCHT 122 or permission of instructor. (SCC)

ARCHT 134 - Electrical and Mechanical Systems (4 cr)
Introduction to Electrical and Mechanical Systems for Buildings: building heating, ventilating, and air conditioning systems, heat transfer concepts, water supply, drainage, electrical and lighting systems for buildings. Prerequisite: ARCHT 120 or permission of instructor. (SCC)

ARCHT 139 - Delineation (5 cr)
Development of skills relating to drawing 2D and 3D objects, one and two point perspective as well as orthographic projection. Exploration of manual sketching techniques in combination with digital presentation methods. (SCC)

ARCHT 215 - Issues in Sustainable Architecture (5 cr)
The course will introduce students to the challenges of sustainable design and will focus on solutions. Students will utilize digital tools and technology with select design projects which will become the vehicle to analyze, evaluate and articulate new ideas for a more sustainable architectural design. (SCC)

ARCHT 225 - Portfolio (1 cr)
The course will guide students in a reflection and compilation of the cumulative documentation developed during the current and previous four quarters of the CAD/Building Design AAS and Architecture AAS-T degree programs. (SCC)

ARCHT 238 - Introduction to Commercial Drafting/Design (6 cr)
Students are introduced to commercial architectural drafting and design implemented as a programmatic, sequential process. Concepts of commercial design are integrated with the development of basic commercial drafting concepts and procedures. Prerequisite: ARCHT 132 or permission of instructor. (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 - Commercial Construction Documents/CAD (4-8 cr)
Students receive practical lab experience in the development of architectural working drawings from a preliminary commercial building design. Structural framing systems are emphasized. Construction documents will be produced using Autodesk CAD/BIM software. Prerequisite: ARCHT 238 or permission of instructor. (SCC)

ARCHT 246 - Commercial Architecture Theory (3-5 cr)
Students are introduced to the commercial architectural drafting profession, including the processes and materials used in the construction of commercial building systems. Commercial design decisions will be defined by relating building technologies, procedures, related industries and jurisdictional constraints. (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. Wood, masonry, steel and concrete systems are discussed in depth. (SCC)

ARCHT 252 - Advanced Commercial Construction Documents/CAD (8 cr)
Practical lab experience is offered in the development of commercial designs utilizing Building Information Modeling (BIM) and related technologies. Emphasis on visualization and analysis of BIM developed projects will be addressed. Prerequisite: ARCHT 242 or permission of instructor. (SCC)

ARCHT 262 - Electrical Mechanical Systems Application/CAD (6-10 cr)
Practical lab experience is utilized in the development of commercial construction documents/designs integrating mechanical, electrical, lighting and plumbing systems for buildings. Hands-on application will be via continued development of Building Information Modeling (BIM). Prerequisite: ARCHT 252 or permission of instructor. (SCC)

ARCHT 263 - Advanced Commercial Building Materials (4 cr)
The course continues the concepts presented in ARCHT 250. A variety of building components, their applications and limitations, and basic construction methods are emphasized. Wood, masonry, steel and concrete systems as well as building envelope materials are discussed in depth. 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)

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. (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 105 - Color and Design (5 cr)
A first-quarter studio class introducing the elements and principles of two-dimensional 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 students are exposed to a variety of contemporary approaches and media in the visual arts. (SCC, 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, Mesoamerican, 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. (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. (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 160 - Matting and Framing (1 cr)
This one credit course is taught concurrently with Art 161 Portfolio Review and is intended for both AFA and CFA fine art students after their first two quarters in the program. Matting and Framing is intended to teach fine art students enrolled in Portfolio Review basic matting and framing skills in order to prepare their portfolio artwork for presentation to the art faculty during the program's formal Portfolio Review at the end of the quarter. All fine art students enrolled in Art 160 must be concurrently enrolled in Art 161. (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. (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. (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. (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. (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. (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. (SFCC)

ART 192 - Printmaking, Intaglio (4 cr)
Dry point, engraving, etching, embossing and collagraphy 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. (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. (SFCC)

ART 197 - New and Mixed Media (3 cr)
This course will enable students to explore and experiment with diverse approaches to new and mixed media. Students will respond to the changes in contemporary art practices, utilizing experimental techniques while using traditional, digital, installation, and performative art making processes. 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. (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 260 - Gallery Procedures (1 cr)
This one credit course is taught concurrently with Art 261(Exhibit) and is intended for both AFA and CFA fine art students in their final spring quarter of the program. Gallery Procedures is designed to help students understand the process of installing all types of artwork in a variety of settings. All fine art students enrolled in Art 260 must be concurrently enrolled in Art 261. (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)

ASTRONOMY

ASTR& 100 - Survey of Astronomy (5 cr)
This course provides a survey of astronomy that includes its history as a science, the motions of celestial objects, the solar system, the life cycles of stars, the Milky Way and other galaxies, and cosmology. This is a non-lab physical science course, and credit will not be granted for both ASTR& 100 and ASTR& 101. (SCC, SFCC)

ASTR& 101 - Intro to Astronomy (5 cr)
This course provides an introduction to general astronomy topics such as patterns of motion in the sky, the physics of motion and light, the formation and characteristics of the solar system, stars and stellar evolution, galaxies, and cosmology. Weekly laboratory required. Credit will not be granted for both ASTR& 101 and ASTR& 100. (SCC, SFCC)

AUDIO ENGINEERING

AUDIO 113 - Live Sound and Location Recording I (4 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. (SFCC)

AUDIO 117 - Introduction to Music Technology (4 cr)
Students learn a brief 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 virtual analog synthesizes. Basic MAC computer tutorial and music sequencing software are 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 117 and 155 and MUSC& 141 or AUDIO 116. (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. (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)

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. (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 and MUSC 214. (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. (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)
This course provides practical instruction in basic electronics and studio wiring. Students learn to identify electronic components, analyze circuits and develop trouble shooting skills to solve typical problems that arise in studio setups and installations. Prerequisite: MUSC 167. (SFCC)

AUDIO 218 - Digital Audio III (5 cr)
This course provides intermediate level instruction on Pro Tools 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 213 and 218 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 219 and 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, 219, 255 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, 151, 156 and concurrent enrollment in AUDIO 217, 218, MUSC 214. (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, 219, 255 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 111 - Shop Procedures Lab (3 cr)
Students are instructed and participate in safe operation of various collision shop equipment in a shop setting. (SCC)

ABF 112 - Introduction to Unibody Lab (5 cr)
Students are instructed in and perform measurement, structural damage, removal and replacement of welded, bonded, and bolted parts in a shop setting. (SCC)

ABF 115 - Basic Metal Straightening and Panel Alignment Lab (3 cr)
Students are instructed in and perform metal and plastic damage diagnosis, repair, and body alignment in a shop setting. (SCC)

ABF 116 - Parts Identification Lab (2 cr)
Students are instructed in and perform parts identification, ordering, and interpreting repair orders in a shop setting. (SCC)

ABF 117 - Automotive Collision MIG Welding (3 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 - Major Panel Replacement Lab (3 cr)
Students are instructed and participate in major panel replacement in metal panels and plastic panels. (SCC)

ABF 124 - Mechanical Components Lab (3 cr)
Students are instructed in the mechanical moving parts of the vehicle and the diagnosing of damaged parts. (SCC)

ABF 125 - Major Unibody and Frame Repair Lab (4 cr)
Students are instructed and participate in the use of frame machines and will participate in pulling the vehicle back to specification of the manufacturer. (SCC)

ABF 127 - Major Panel Replacement (1 cr)
Students are introduced to frame machines and how they are used for replacement repair of inner and outer panels of the vehicle. (SCC)

ABF 133 - Introduction to Industrial Safety and Hygiene Lab (1 cr)
Students are instructed and participate in safety procedures. (SCC)

ABF 134 - Introduction to Interior and Exterior Surface Preparation Lab (2 cr)
Students are instructed and participate in surface preparation of interior and exterior of the vehicle. (SCC)

ABF 135 - Basic Polishing and Detailing (2 cr)
Students are introduced to polishing and detailing procedures. Washing, compounding and polishing, and interior and exterior detailing are emphasized. (SCC)

ABF 136 - Introduction to Topcoat Systems and Application Procedures Lab (2 cr)
Students are instructed and participate in the actual application of the topcoat paint. (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. (SCC)

ABF 138 - Intermediate Interior and Exterior Surface Preparation Lab (3 cr)
Students are instructed and participate in sanding techniques and defects that may occur. (SCC)

ABF 139 - Intermediate Paint Application, Color Matching, and Paint Mixing Lab (3 cr)
Students are instructed and participate in advanced painting, color matching, and mixing of paints. (SCC)

ABF 140 - Materials and Cost Estimation Lab (2 cr)
Students are instructed and participate in writing an estimate for cost of materials and total repair. (SCC)

ABF 141 - Intermediate Finessing, Compounding, and Detailing (2 cr)
This course emphasizes practical applications of color matching, paint mixing and tinting procedures. (SCC)

ABF 180 - Introduction to Vinyl Wrapping (1 cr)
Students are introduced to vinyl materials, tools, safety protocols, and the application procedures necessary for vinyl installation. (SCC)

ABF 181 - Introduction to Vinyl Wrapping Lab (2 cr)
Students are instructed in and perform the installation of vinyl materials while using the proper tools and adhering to safety protocols within the shop setting. (SCC)

ABF 182 - Basic Applications of Vinyl Wrapping (1 cr)
Students are introduced to application methods of vinyl to painted walls, brick, vehicles, and trailers. Students will also learn about knifeless tape and blade control. (SCC)

ABF 183 - Basic Applications of Vinyl Wrapping Lab (2 cr)
Students are instructed in and will perform vinyl applications on painted walls, brick, vehicles, and trailers. Students are also instructed in and will demonstrate the proper use of knifeless tape and blade control. (SCC)

ABF 211 - Shop Procedures (1 cr)
This course introduces students to basic shop operation including safety precautions of common collision repair, equipment work order, estimate reading, and parts ordering. (SCC)

ABF 212 - Introduction to Unibody (2 cr)
Students are instructed in measurement, correction of structural damage, and replacement of welded, bonded, and bolded parts. (SCC)

ABF 215 - Basic Metal Straightening and Panel Alignment (1 cr)
Students are instructed in metal and plastic damage diagnosis, repair, and body alignment. (SCC)

ABF 216 - Parts Identification (1 cr)
Students are instructed in automotive parts identification, ordering, and interpreting repair orders. (SCC)

ABF 224 - Mechanical Components (1 cr)
Students are instructed on mechanical parts of the vehicle and how to replace those parts. (SCC)

ABF 225 - Major Unibody and Frame Repair (2 cr)
Students are instructed on how to use multiple pulling of vehicle and how to diagnose damage of a unibody and body over frame vehicle. (SCC)

ABF 233 - Introduction to Industrial Safety and Hygiene (1 cr)
The course introduces safety precautions used in the collision industry. (SCC)

ABF 234 - Introduction to Interior and Exterior Surface Preparation (1 cr)
Students are instructed in preparation of the surface for topcoat of paint. (SCC)

ABF 236 - Introduction to Topcoat Systems and Application Procedures (1 cr)
Students are instructed in different paints and the application of those paints. (SCC)

ABF 238 - Intermediate Interior and Exterior Surface Preparation (1 cr)
Students are instructed in different techniques of sanding and application of undercoat products. (SCC)

ABF 239 - Intermediate Paint Application, Color Matching, and Paint Mixing (1 cr)
Students are instructed in advanced color matching and tinting colors to match the vehicle. (SCC)

ABF 240 - Materials and Cost Estimation (2 cr)
Students are instructed in cost of materials and the efficiency of the students' time. (SCC)

ABF 244 - Advanced Metal Straightening and Panel Alignment Methods Lab (5 cr)
Students are instructed in and perform advanced methods of metal correction and panel alignment in a shop setting. (SCC)

ABF 247 - Advanced Metal Straightening and Panel Replacement Methods (1 cr)
Students are instructed in advanced methods of metal correction and panel alignment. (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 270 - Sheet Metal Restoration Welding Lab (3 cr)
Students are instructed in and perform various welding methods related to restoration and fabrication of sheet metal in a shop setting. (SCC)

ABF 271 - Sheet Metal Shaping Lab (3 cr)
Students are instructed in and perform metal shaping and parts fabrication in a shop setting. (SCC)

ABF 272 - Bucks and Forms Lab (2 cr)
Students are instructed in and perform the design and construction of various bucks, forms, and tooling used to shape metal in a shop setting. (SCC)

ABF 273 - Sheet Metal and Restoration and Repair (3 cr)
Students are instructed in and perform metal preparation and straightening and filling of damaged panels in a shop setting. (SCC)

ABF 275 - Sheet Metal Restoration Welding (1 cr)
Students are instructed in welding safety, equipment, and processes related to the restoration and fabrication of sheet metal. (SCC)

ABF 276 - Sheet Metal Shaping (1 cr)
Students are instructed in metallurgy, shrinking, stretching, shaping methods, tools and equipment. (SCC)

ABF 277 - Bucks and Forms (1 cr)
Students are instructed in the design and construction of various bucks, forms, and tooling used to shape metal. (SCC)

AUTOMOTIVE TECHNOLOGY

AUTO 100 - Introduction to Automotive (4 cr)
This course introduces students to what is required of entry level automotive technicians, including, but not limited to, shop safety, tool and equipment usage, locating service information and performing basic service maintenance. (SCC)

AUTO 102 - Toyota Electrical I (5 cr)
This course introduces students to automotive electrical systems, Toyota electrical systems, servicing, and repair. (SCC)

AUTO 104 - Toyota Electrical II (6 cr)
This course introduces students to advanced electrical diagnostic and repair. (SCC)

AUTO 110 - Introduction to Toyota (5 cr)
This course introduces students to Toyota T-TEN coursework. An overview of tire service, tools and equipment, lube service, Toyota information systems, and the Toyota Dealership is presented. (SCC)

AUTO 111 - Theory of Brakes (6 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 - Applications of Brakes (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 Auto Transmissions/Transaxles (6 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 - Application of Auto 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 Electrical and Electronics (11 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 Electrical and Electronics (7 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 (11 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 - Application of Engine Performance (7 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 Heating and Air Conditioning (4 cr)
This course introduces students to the theory of automotive heating and air conditioning systems. (SCC)

AUTO 120 - Application of Heat and AC (2 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 123 - Toyota Engine Performance I (6 cr)
The student will learn the basic techniques of diagnosis of automotive electronic control engines. (SCC)

AUTO 126 - Toyota Engine Repair (5 cr)
This course enables the student to remove, reinstall, teardown, overhaul, diagnosis of engine operation, service and repair. (SCC)

AUTO 129 - Theory of Manual Drive Train/Transmissions (5 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 - Application of Manual Drive Train/Transmission (3 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. Prerequisite: Concurrent enrollment in AUTO 129. (SCC)

AUTO 131 - Theory of Suspension and Steering (5 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 - Application of Suspension and Steering (3 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 136 - Toyota Steering & Suspension (6 cr)
This course is an introduction to the theory and operation of automotive steering and suspension systems. (SCC)

AUTO 137 - Toyota Brake Service & Repair (5 cr)
This course is an introduction to the theory and operation of automotive brake systems, hydraulic systems, and all types of brake systems. (SCC)

AUTO 211 - Theory of Engines (7 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. (SCC)

AUTO 212 - Application of Engine Repair (5 cr)
This course provides practical shop experience in engine repair including engine diagnosis, cylinder head inspection, valve trains, engine blocks, lubrication and cooling fundamentals. (SCC)

AUTO 215 - Introduction to Hybrid & Electrified Vehicles (EV) (10 cr)
Students will learn the practical application of Ohm's Law, Watts Law, & Impedance. Digital Multi Meter Including, Ammeter, Ohm Meter, Voltmeter, Milliohmeter, Insulation Meter, Generic Scan Tool, and an Oscilloscope. Understand High Voltage Safety, PPE, PPE Testing. Understand batteries and types of batteries used for Hybrid and Electric Vehicles. Concurrent enrollment in AUTO 216 Introduction to Hybrid and Electrified Vehicles (EV) Diagnosis lab required. (SCC)

AUTO 216 - Introduction to Hybrid & Electrified Vehicle (EV) Diagnosis (2 cr)
Students obtain practical shop experience in the safety, understanding and operations of a Hybrid and Electric Vehicle High Voltage battery, motors, and generators & Components. Perform High Voltage insulation testing, Milliohmeter testing of a motors and or generators. Use latest diagnosing equipment for Motors, Inverters, Generators, and batteries. Disassemble High voltage batteries and perform Power test, energy test, pair cells, recharge and perform again. Concurrent enrollment in AUTO 215 Introduction to Hybrid & Electrified Vehicles (EV) required. (SCC)

AUTO 237 - Toyota T-Port Lab I (12 cr)
This is the students' first dealership experience. They will be learning what it takes to become successful as a Toyota Service Technician. Includes employment at a Toyota/Lexus dealer. (SCC)

AUTO 238 - Toyota T-Port Lab II (12 cr)
Students will work at the dealership with their mentor practicing skills learned in class and in previous quarters. (SCC)

AUTO 239 - Toyota T-Port Lab III (12 cr)
This is the final T-Port workplace training exercise. (SCC)

AUTO 260 - Toyota Engine Performance II (6 cr)
This course introduces students to advanced Toyota engine control systems and fault diagnosis. (SCC)

AUTO 261 - Toyota Drivetrains (5 cr)
Students will be introduced to service and repair of Toyota manual transmissions and drive trains, including 4WD systems. (SCC)

AUTO 263 - Toyota Automatic Transmissions (5 cr)
Students will be introduced to principles, services, and repair of Toyota automatic transmission/transaxles. (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 (18 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 Master certification. (SCC)

AUTO 286 - Toyota Heating and A/C (5 cr)
This course includes knowledge of the automotive repair and service of the AC systems, ATC systems diagnosis, and repair. (SCC)

AVIATION MAINTENANCE TECHNOLOGY

ARCFT 115 - Introduction to General Aircraft Maintenance (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 (5 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, vocational mathematics, basic electrical systems, and instrumentation are covered. Prerequisite: Concurrent enrollment in ARCFT 115. (SCC)

ARCFT 117 - General Aircraft Maintenance (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. Concurrent enrollment in ARCFT 118. (SCC)

ARCFT 118 - General Aircraft Maintenance Shop (5 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: concurrent enrollment in ARCFT 117. (SCC)

ARCFT 119 - General Electricity & Electronics (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 - General Electricity & Electronics Shop (5 cr)
Students apply advanced knowledge of aerodynamics, electronics mathematics, and the 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 131 - Composite Structure Assembly (5 cr)
Learners will utilize appropriate materials and processes to assemble structures made of composite materials. Lab experience will also cover mold making and safety in handling resins, reinforcements, and related materials. Prerequisite: ARCFT 123. (SCC)

ARCFT 132 - Applied Manufacturing Project (2 cr)
Students practice applied projects related to fabrication techniques that may include interdepartmental projects, CAD design, shop skills, measuring, fabrication, machining, composites, and quality control. (SCC)

ARCFT 135 - Airframe & Powerplant Electrical Systems (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 - Airframe & Powerplant Electrical Systems Shop (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 Metallic Structures (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 Metallic Structures Shop (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 Non-Metallic Structures & Environment Systems (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 Non-Metallic Structures & Environment Systems Shop (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 - Airframe Flight Control, Rigging, and Landing Gear Systems (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 - Airframe Flight Control, Rigging, and Landing Gear Systems Shop (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 - Airframe Instruments, Fluid Systems, & Inspections (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 - Airframe Instruments, Fluid Systems, & Inspections Shop (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 - Airframe Reciprocating Engines (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 - Airframe Reciprocating Engines Shop (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 - Airframe Turbine Engines (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 - Airframe Turbine Engines Shop (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 Combustions, Monitoring, & Exhaust Systems (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 Combustions, Monitoring, & Exhaust Systems Shop (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 Propellers, Airflow, & Cooling Systems (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 Propellers, Airflow, & Cooling Systems Shop (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 275 - Theory and Review - Airframe or Powerplant (1-10 cr)
This class provides students with additional time to meet Federal Aviation Administration (FAA) requirements. 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. Prerequisite: Completion of all six quarters of ARCFT courses. (SCC)

AVIONICS

AVIO& 103 - Aircraft Wiring Systems (2 cr)
Students will learn fundamentals, troubleshooting, and repair of aircraft wiring, including acceptable standards for visual, electrical, and mechanical quality. (SCC)

AVIO& 104 - Aircraft Fiber Optic Systems (2 cr)
This course is designed to prepare students to install, maintain, troubleshoot, and repair fiber optics in the aviation industry. Participants will learn to work safely with materials used in fiber optics, while learning to handle materials properly. (SCC)

AVIO& 201 - Aircraft Digital Electronic Instrument Systems (8 cr)
Students will learn about basic aircraft digital electronic instrument systems including: computer math, numbering systems, logic expressions, gates, and microprocessors. Through hands-on experiments students will learn to properly and safely use test equipment to analyze and troubleshoot digital circuits. This class is equivalent to AVIO 211 and AVIO 212 combined. (SCC)

AVIO& 202 - Avionics Systems for Airframe and Power Plant (8 cr)
Students will learn the fundamentals of aircraft avionics systems for airframe and powerplant including: aerodynamic principles, aircraft structures, communication systems, power distribution systems, avoidance and detection systems, master warning and annunciator systems, radar systems, lighting systems, power plant systems, and airframe systems. In-class experiments will provide a hands-on approach to system troubleshooting and repair. (SCC)

AVIO& 203 - Avionics Communications (2 cr)
Students will study the requirements for the FCC General Radiotelephone Operator License and Ship Radar Endorsement utilizing FCC guidelines, fundamentals of communications, and key topics. (SCC)

AVIO& 204 - Principles of Avionics Troubleshooting (2 cr)
This course is designed to identify and isolate avionics system faults through a logical approach using a four step troubleshooting method. (SCC)

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 and Pastries (12 cr)
Students learn to make a variety of pastries including laminated doughs (croissant, Danish, puff pastry), cookies, quick breads, donuts, biscuits, and pies. Students will learn to create artisan style breads using natural starters (levain) preferments (poolish, biga, sponge) using longer fermentation periods. Students will also make straight dough breads using commercial yeast. (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 (3 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 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 (3 cr)
Students learn advanced techniques in decorating artistic wedding cakes. (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)
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)

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)

BIOL 107 - 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 lifestyle. Provides audio-visual materials on dinosaur collecting sites and museums. The CCS paleontological collection includes actual dinosaur fossils, 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. Overview and discussion of various extinction theories. (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& 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 229 - Field Studies (1 cr)
Coastal temperate rain forest and marine environments are investigated as students prepare specialized topics. Emphasis on integration of topics by visiting ecosystems on the Olympic Peninsula and participating in discussions. Prerequisite: Concurrent enrollment in BIOL& 222 or BOT 113 or permission of the instructor. (SFCC)

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 BIOL& 222 with a 2.0 or better 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 and either BIOL& 160 or BIOL& 222 or permission of instructor. (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 222. (SCC, SFCC)

BIOL& 260 - Microbiology (5 cr)
Introduction to the study of bacteria, viruses, rickettsia, 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 or BIOL& 222 or permission of instructor. (SCC, SFCC)

BIOL 270 - Biological Investigation (3 cr)
This course introduces students to the fundamentals of scientific methods, experiment design and execution, including data collection and analysis, scientific writing, and use of biological literature. Prerequisite: BIOL& 160, 222, or instructor approval. (SFCC, SCC)

BIOL 280 - Human Cadaver Prosection (3 cr)
This is a three-credit laboratory dissection course in which students dissect a human cadaver. Dissections focus on internal organ systems and are conducted by body region in the following areas: Head, thorax, abdomen, pelvis and cranium. Areas of study include regional surface anatomy, compartments, anatomical and physiological relationships, musculoskeletal structures, vasculature, and nerve supply of the extremities. Class can be repeated up to three times allowing student to develop beginning, intermediate and advanced dissection skills and knowledge. (Repeatable up to 9 credits). Grading option: Pass/fail. Prerequisite: BIOL& 242 and permission of instructor. (SFCC)

BIOMEDICAL EQUIPMENT TECHNICIAN

BIOEQ 110 - Biomedical DC Theory (4 cr)
Students receive a foundational understanding of DC circuit theory, covering Ohm's Law, Kirchhoff's Laws, and the function of basic electronic components including resistors, conductors, and insulators as they apply to the biomedical field. Concurrent enrollment in BIOEQ 111 and 112 required or department chair permission. (SCC)

BIOEQ 111 - Biomedical DC Lab (3 cr)
This class allows students hands-on application of theoretical concepts, evaluate, and troubleshoot basic DC circuits using DC meters and power sources. Students create technical documents in Microsoft Word and Excel and simulate circuits in Multisim. Basic solder techniques are introduced. Concurrent enrollment in BIOEQ 110 and 112 required or department chair permission. (SCC)

BIOEQ 112 - Biomedical DC Math (2 cr)
In this course, students review algebraic concepts such as fractions, decimals, percent, and powers of 10, as they apply to DC Circuits. Students also learn to calculate DC circuit parameters using algebraic equations to analyze circuits. Concurrent enrollment in BIOEQ 110 & 111 or department chair permission. (SCC)

BIOEQ 113 - Biomedical Soldering (2 cr)
Students learn basic soldering techniques for electronic repair and assembly. (SCC)

BIOEQ 121 - Vital Signs Monitoring Equipment (3 cr)
Students learn about the different types of vital signs monitoring equipment. They will learn how they interface with the human body. They will learn how to calibrate different machines and perform maintenance checks. (SCC)

BIOEQ 122 - Imaging Systems (2 cr)
Students learn about the different types of medical imaging equipment, and the basics of their function. (SCC)

BIOEQ 123 - Medical Equipment Research (2 cr)
Students will research new and improving technology in the medical equipment field. They will have an opportunity to present their research to the class. (SCC)

BIOEQ 133 - Computer Fundamentals (4 cr)
Students are introduced to basic computer systems including the motherboard, Bus architecture, BIOS, storage de-vices, audio/video devices. Students will also learn the basics of operating system installation, troubleshooting, and maintenance. Concurrent enrollment in BIOEQ 134 required or permission from department chair. (SCC)

BIOEQ 134 - Computer Fundamentals Lab (3 cr)
The course gives the student a hands-on approach to basic computer systems including the motherboard, Bus architecture, BIOS, storage devices, audio/video devices. Students will learn the basics of computer operating system installation, troubleshooting, and maintenance. Concurrent enrollment in BIOEQ 133 Computer Fundamentals required or permission of department chair. (SCC)

BIOEQ 141 - Digital Electronics (5 cr)
Students are introduced to digital circuit theory and various components used in digital circuits. Students learn logical expressions and binary code. Must be concurrently enrolled in BIOEQ 142 Digital Electronics Lab. (SCC)

BIOEQ 142 - Digital Electronics Lab (3 cr)
Students experience a hands-on approach to digital circuit theories by performing lab experiments using digital trainers and logic probes. Students are introduced to ICs and their use in digital circuits. Concurrent enrollment in BIOEQ 141 Digital Electronics or department chair permission. (SCC)

BIOEQ 143 - Biomedical Regulations & Standards (5 cr)
Students learn about FDA and other regulatory agencies for medical equipment. They will learn different regulations and standards within those agencies. (SCC)

BIOEQ 199 - Medical Terminology for Biomedical Equipment Technology (3 cr)
Students will master the language that healthcare professionals use. We learn about word roots, prefixes, and suffixes. We explore how to communicate and pronounce complex words. (SCC)

BIOEQ 211 - Biomedical AC Theory (4 cr)
Students are introduced to AC circuit theory, capacitors, inductors, and filters. Students will learn the application of AC theory to medical equipment. Concurrent enrollment in BIOEQ 212 and 213 required. (SCC)

BIOEQ 212 - Biomedical AC Lab (3 cr)
This hands-on lab allows students use inductors and capacitors, build, evaluate, and troubleshoot, basic AC circuits using oscilloscopes, AC meters, and signal generators. Concurrent enrollment in BIOEQ 211 and 213. (SCC)

BIOEQ 213 - Biomedical AC Math (2 cr)
Students learn about mathematical equations relating to AC circuits. They will learn how to incorporate inductors and capacitors into a circuit equation. There will be exposure to binary, octal, and hexadecimal numbers. Concurrent enrollment in BIOEQ 211 and 212 required. (SCC)

BIOEQ 220 - Biomedical Project Management (1 cr)
Students will learn about time management, special projects, and common occurrences in the biomedical equipment technician field. (SCC)

BIOEQ 221 - Specialized Testing Equipment (3 cr)
Students will learn about the different types of testing equipment for medical devices. They will describe when each device should be used. They will research different vendors for purchasing testing equipment. They will demonstrate the use of the different types of testing equipment. (SCC)

BIOEQ 231 - Bloodborne Pathogens & HIPPA (3 cr)
Students learn about infectious microorganisms in the blood that can cause disease. Students learn about personal protective equipment used in the biomedical equipment technician field. Students will also learn about HIPAA and the application to medical devices and healthcare facilities. (SCC)

BIOEQ 232 - Introduction to Networking (4 cr)
Students learn the basics of computer networking and how it applies to medical facilities. Students will learn the basics of RF communication. They will build and test different circuits and networks. (SCC)

BIOEQ 233 - Electronic Components (4 cr)
Students learn about electronic amplifiers, differentiators, integrators and filters. Students will learn about the difference between linear and nonlinear components. Concurrent enrollment in BIOEQ 234 Electronic Components Lab required. (SCC)

BIOEQ 234 - Electronic Components Lab (3 cr)
Students build electronic amplifiers, differentiators, integrators and filters. Students will test and troubleshoot the linear and nonlinear circuits. Concurrent enrollment in BIOEQ 233 Electronic Components. (SCC)

BIOEQ 242 - Human Body Structure & Function (5 cr)
Students learn the basics of human anatomy and physiology. They are introduced to the medical equipment that is designed to diagnose and treat different human body systems. (SCC)

BIOEQ 243 - Life-Saving Equipment (3 cr)
Students learn the different types of life-saving medical equipment. They will be exposed to defibrillators, ventilators, and dialysis machines. Students will perform repair or maintenance on these devices. (SCC)

BIOEQ 244 - Electronic Devices (4 cr)
Students learn about solid state theory and the use of amplifiers, transistors, diodes, FETs, and semiconductors in a circuit. Concurrent enrollment in BIOEQ 245 required. (SCC)

BIOEQ 245 - Electronic Devices Lab (2 cr)
Students learn how to build diode, transistor, and FET circuits. Students will use specialized lab equipment to test the electronic circuits. Students will understand how solid-state circuits are used in medical equipment. Concurrent enrollment in BIOEQ 244 Electronic Devices required. (SCC)

BIOEQ 251 - Biomedical Instrumentation Patient Monitoring and Clinical (5 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: Permission of the instructor and enrollment in the Biomedical Equipment Technician program and concurrent enrollment in BIOEQ 242. (SCC)

BIOEQ 252 - Biomedical Instrumentation Laboratory (4 cr)
Students receive hands-on experience with circuits and equipment discussed in BIOEQ 251. Prerequisite: Permission of the instructor and enrollment in the Biomedical Equipment Technician program and concurrent enrollment in BIOEQ 251. (SCC)

BIOEQ 271 - Biomedical Equipment Technology Clinical Rotation (8 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. Concurrent enrollment in BIOEQ 272 Biomedical Seminar required. (SCC)

BIOEQ 272 - Biomedical Seminar (4 cr)
Students discuss technical problems, ethics, safety concerns, and other situations and topics that may develop during clinical rotation. Students are assisted with the final draft of their resumes. Concurrent enrollment in BIOEQ 271 Biomedical Equipment Technology Clinical Rotation. (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)

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. (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. (SFCC)

BOT 130 - Mycology (5 cr)
This course addresses the biotechnological, economic, and cultural significance of fungi as well as their general biology and diverse ecological strategies. Fungi and fungus-like organisms are instigators of diseases, sources of medicines, and have unique biodegradation mechanisms. (SFCC)

BUSINESS MANAGEMENT

BMGT 341 - Applied Principles of Management (5 cr)
Formerly MMGT 341. This course is the study of the theory and practice of management. Emphasis is placed on functions and strategy, structure, managerial planning, and decision making as well as the processes of organizing, leading, and controlling. Current organizational issues and trends will be integrated. Prerequisite: BUS& 101 and Applied BAS degree students only. (SFCC)

BMGT 342 - Project Management (5 cr)
Formerly MMGT 342. This course is the study of the common framework and practices for applying project management practices in business. Topics include processes, interactions and common practices in the field of project management. Emphasis is placed on the knowledge area defined by the Project management Institute body of knowledge. This course will provide practical exercises and case studies. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 344 - Business Information Systems (5 cr)
Formerly MMGT 344. This course uses a case approach to business problem solving using advanced spreadsheeting and database applications. Students will apply critical thinking skills and logical design skills when preparing information for a business audience. Prerequisite: BT 106 and Applied BAS degree students only. (SFCC)

BMGT 350 - Marketing for Managers (5 cr)
Formerly MMGT 350. Focus on the art and science of attracting, retaining and growing customers by creating superior customer value to the chosen target market. Build skills through case studies and through practice of marketing techniques. Current global issues and trends will be integrated. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 393 - Independent Study (1-5 cr)
Independent study is offered within the Bachelor of Applied Science in Applied Management program in each discipline and is designated by the course number BMGT 393. Students are not to exceed a total of 10 credits of independent study during their tenure at Community Colleges of Spokane. Requirements and limitations concerning courses are available from the Dean of the Bachelor of Applied Science in Applied Management program. Prerequisite: Applied BAS students only. (SFCC)

BMGT 428 - Human Resource Management (5 cr)
Formerly MMGT 428. This course provides an understanding of how organizations can gain a sustainable competitive advantage through the effective utilization of their employees. Human resource departments today have an active role in strategic planning and decision making within their organizations. The purpose of this course is to familiarize students with the tools and practices of human resource management and an appreciation for the changes they can effect by understanding how best to manage people and be aware of the challenges and opportunities likely to be encountered. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 435 - Operations Management (5 cr)
Formerly MMGT 435. The Operations Management (OM) course provides an introduction of the multidisciplinary nature of operations management and the associated modern concepts. It outlines an historical perspective, working definition and a common language used. The Operations Management course studies daily management activities of an organization. It prepares students with techniques and objectives to help service-oriented and/or manufacturing-oriented organizations achieve their objectives. Operations Management deals with logistics, techniques and methods needed to achieve management objectives relative to quality, quantity, schedules and costs. This course provides practical exercises and case studies. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 440 - Healthcare Management (5 cr)
This course focuses on the skills necessary to actively and effectively manage health care professionals in various health care settings. Students will analyze health care organizational structure, financial considerations affecting the health care field, legalities in health care, and leadership requirements to effectively manage in this industry. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 441 - Health Care Operations (5 cr)
The student will recognize the role operational management plays in the health care industry regarding cost containment and quality control; the impact operational management has in health care regarding supply-chain management, continuous improvement, and strategic analysis identifying efficient use of resources within this industry. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 445 - Applied Professional Sales (5 cr)
The course covers the characteristics and skills necessary for success in business development; techniques for identifying sales prospects and qualifying buyers; the importance of relationship building, product knowledge, and post sales service. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 450 - Entrepreneurship (5 cr)
This course is designed to give students a hands-on experience in innovation and evaluation of startup business concepts from ideation to delivery. The outcome is a completed actionable business plan. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 491 - Capstone Project (5 cr)
Formerly MMGT 491. This course provides the opportunity for students to integrate and demonstrate the concepts of management to the real world. Students will complete a comprehensive analysis of a business and develop a long range, strategic plan including implementation and recommendations for change. Students will integrate and synthesize competencies from across the program and exhibit their ability to participate in and contribute to their chosen professional field through the successful completion of a written project. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 492 - Business Management Internship (5 cr)
Formerly MMGT 492. This course is designed to provide students with practical training work experiences in a business management setting. Prerequisite: Applied BAS degree students only. (SFCC)

BUSINESS TECHNOLOGY

BT 100 - Beginning Keyboarding (1 cr)
This course introduces students to proper touch keyboarding skills techniques. Emphasis on development of speed and accuracy. 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. (SFCC)

BT 102 - Document Processing (5 cr)
This course addresses formatting theory and application instruction for personal and business letters, tables, memoranda and reports using word processing software. Students develop skills in editing, formatting and mechanics of written expressions. Speed and accuracy are emphasized. The course is a continuation of BT 101 and utilized as a refresher course. (SFCC)

BT 105 - Grammar for Business (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. (SCC)

BT 106 - Computing Essentials (5 cr)
Develops beginning computer skills in a Windows-based environment. Includes mastery of the alphabetic keyboard using the "key-by-touch" method, understanding of MS Windows features and terminology, effective application of file management techniques, use of Internet navigation skills, and effective application of beginning Word skills in the creation and formatting of business documents. (SCC, SFCC)

BT 107 - Business Communications (5 cr)
This course focuses on the basic elements of grammar, punctuation, capitalization, number formats, abbreviations, symbols, and proofreading in preparation for typical business communication messages. (SFCC)

BT 127 - Human Relations and Professional Development (3 cr)
Students are introduced to professional workplace skills. Concepts include the responsibilities and behaviors of an administrative professional, business ethics, collaboration and communication, records management, and office equipment operation. (SCC)

BT 152 - College and Career Strategies (3 cr)
Students learn to identify and develop behaviors that lead to personal and academic success. Students learn skills to increase their success in college and to help them achieve their academic and professional goals. (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. (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: SCC: Second-year student or permission of instructor; SFCC: No prerequisite. (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. (SCC)

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. (SCC)

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. (SFCC)

BT 204 - Spreadsheet Design and Analysis (5 cr)
This is an in-depth Microsoft Excel course. Students use the software to develop and analyze business spreadsheets. Topics include: creation and formatting of worksheets, workbooks, tables; application of formulas and functions; creation of charts and objects; use of conditional formatting and filtering. This course will also help prepare students for the MS Excel Certification exam. (SCC)

BT 205 - Database Design and Analysis (5 cr)
This is an in-depth Microsoft Access course. Students will learn data management concepts and the use and creation of relational databases as a business tool. Topics include: views, simple and advanced queries, create and modify forms and sub-forms, reports, primary and foreign keys, importing data, formulas, controls and conditional formatting. This course will also help prepare students for the MS Access Certification exam. (SCC)

BT 206 - Electronic Records Management (3 cr)
This course emphasizes the principles and practices of the management of information for both manual indexing and automated records systems. The course analyzes the record's life cycle from creation to disposition within the structure of any given organization. Emphasis is placed on the classification of records, application of filing rules, and the organization and management of manual and electronic information. The basic indexing systems concepts cover a variety of indexing schemes for paper and electronic records. This class provides the opportunity to work with computer databases encountered in business. Students will research and present up-to-date information on retention, retrieval, and storage of records and federal legislation designed to protect information and the privacy of the individual or organization. (SCC)

BT 231 - Office Procedures (5 cr)
Students learn and practice skills required in a professional workplace, with emphasis on administrative roles. Concepts include communication and interpersonal skills; modern office technology; professional presentations; meetings, events, and travel organization; advanced records management, and financial documents. (SCC, SFCC)

BT 234 - Administrative Professional Practicum (5 cr)
Students gain hands-on experience using current integrated office software while working at their own office workstations 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. (SFCC)

BT 236 - Virtual Business Practice (5 cr)
This course prepares students to understand the foundations of working for a virtual business. Students identify resources, marketing strategies, and develop an online presence. Students will practice through simulations and online tools. Prerequisite: Permission of instructor. (SFCC)

BT 251 - Current Trends in Technology (5 cr)
This course provides an overview of office information systems for student entering administrative office careers. Students explore current technology used in offices today and how it impacts office workers. Topics include: microcomputer operation, software, hardware and storage; the Internet and Web 2.0 tools; privacy, security, and ethics; social media, and cloud computing. (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. (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. (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: SCC: Second year standing; SFCC: No prerequisite. (SCC, SFCC)

BT 263 - Integrated Office Applications (5 cr)
This project-based capstone course provides comprehensive coverage of Microsoft Office applications. Critical-thinking and problem-solving learning methods will be employed throughout the course. Prerequisite: BT 165, 204, and 205 or CATT 122. (SCC)

BT 272 - Business Correspondence (5 cr)
Business students learn to write a variety of business messages demonstrating an understanding of strategic choices for specific audiences and purposes and the proficient use of grammar, punctuation, and mechanics. Prerequisite: SFCC only - BT 107 or ENGL& 101. (SCC, SFCC)

BT 273 - Business Research and Report Writing (5 cr)
Business Research and Report Writing revolves around a business research problem addressed with a problem-solving approach. Students conduct primary and secondary research needed to write proposals, letters of inquiry, progress reports, and formal business reports that incorporate principles of document design to enhance and clarify meaning. Report writers then create and deliver an oral presentation of their research using presentation software. Prerequisite: BT 272 or 274. (SCC)

BT 274 - Business Writing for the Web (5 cr)
This course will build on students' knowledge of general business writing including appropriate choices in style, grammar, and mechanics. Students will adapt those skills for online modes and learn new strategies for reaching online audiences and accomplishing business purposes with those audiences. Students will explore the differences between various audiences and the use of text, images, sound, and visual design to accomplish business purposes effectively. (SCC)

BT 280 - Project Management for the Office (2.5 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. (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. Grading option: Pass/fail. (SCC, SFCC)

BUSINESS, GENERAL

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)

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 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)

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)

BUS 105 - Leadership (5 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)

BUS 113 - Discounts, Markups and Markdowns (1 cr)
Calculate cash and trade discounts and solve for unknown variables regarding product markups and markdowns. Note: If you have already passed BUS 123 you may not take this course for credit. (SFCC)

BUS 114 - Solving for the Unknown and Business Math Review (1 cr)
How to approach and solve business scenarios and a comprehensive review of basic Business Math concepts. Note: if you have already passed BUS 123 you may not take this course for credit. (SFCC)

BUS 118 - Practical Business Math II (2 cr)
Utilize mathematical operations to solve practical business application problems. Core topics include financial money and percentage calculations, discounting, and solving business problems by equation. Prerequisite: BUS 122 or instructor permission. Note: if you have already passed BUS 123 you may not take this course for credit. (SFCC)

BUS 119 - Basic Finance (5 cr)
Students are introduced to managing all phases of basic finance. Students will engage in such activities as developing a budget and goal setting as well as exercises related to obtaining and responsibly using credit to build a good credit score. The course increases student's ability to make sound financial evaluations and decisions related to housing, transportation, insurance, large purchases, savings, and financial services. (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)

BUS 122 - Practical Business Math I (3 cr)
Utilize mathematical operations to solve practical business application problems. Core topics include review of basic addition, subtraction, multiplication, division, fractions and percents. Applications include simple interest and maturity values, compound interest, present and future values. Note: if you have already passed BUS 123, you may not take this course for credit. (SFCC)

BUS 123 - Practical Business Math Applications (5 cr)
Utilize mathematical operations to solve practical business application problems. Core topics include review of basic addition, subtraction, multiplication, division, fractions and percents. Applications include bank reconciliation, simple interest and maturity values, compound interest, present and future values, the cost of installment buying, and the effects of paying off installment loans early versus on time and revolving charge credit cards. Additional topics covered are trade discounts, cash discounts, markups and markdowns, break even analysis, payroll calculations with employee pay deductions and employer responsibilities. (SFCC)

BUS 124 - Intermediate Business Math Skills (2 cr)
Gain exposure to simple depreciation, common inventory methods, and various financial reports. Calculate basic business statistics such as mean, median, mode, and standard deviation for the purpose of making sound business decisions. Prerequisite: BUS 123 or instructor permission. (SFCC)

BUS 125 - Consumer Math (3 cr)
Gain exposure to the cost of credit cards and the benefits of paying off early. Explore various types of mortgages and determine the pros and cons of each. Various types of taxes and insurance coverage will be explained and calculated. Reading and evaluating stocks, bonds, and mutual funds quotations complete this course. Prerequisite: BUS 123 or instructor permission. (SFCC)

BUS 129 - Intermediate Business Math (5 cr)
Gain exposure and proficiency in wide variety of business calculations to include credit cards, home loans, insurance for life, fire and automobile, taxes for sales, excise and property, stocks and bonds, and depreciation and inventory methods. Also included is a brief overview of statistics and common accounting statements. Prerequisite: BUS 123 or instructor permission. (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)

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 206 - Entrepreneurship and Business Plan Writing (10 cr)
The class gives students an understanding of business principles and how they fit together to assess the feasibility of a business concept and how to write an actionable business plan. Prerequisite: Completion of MMGT 205 with a 2.0 or higher or permission of instructor. (SCC)

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. SCC Prerequisite: MATH 72 with a 2.0 or better or appropriate placement scores. SFCC prerequisite: MATH 88 or 90 with a 2.0 or better within the last three years, 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)

CAD DESIGN AND DRAFTING

CAD 101 - Introduction to Technology (3 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)

CAD 109 - Introduction to Computer Aided Drafting (2-5 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. (SCC)

CAD 111 - Applied Technical Math 1 (3 cr)
This course introduces theory and practical application of math concepts emphasizing the fundamentals of algebra. (SCC)

CAD 114 - Engineering Graphics/CAD 1 (5 cr)
This course introduces students to fundamental drafting and CAD practices with emphasis on industry drawing standards using manual drafting, sketching, 2D CAD and an introduction to 3D Solid Modeling. (SCC)

CAD 120 - Basic Blueprint Reading (2-3 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 121 - Applied Technical Math 2 (3 cr)
This course continues with the concepts introduced in CAD 111 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: CAD 111. (SCC)

CAD 124 - Engineering Graphics/CAD 2 (5 cr)
This course is an extension of CAD 114 with emphasis on CAD drawing methods used in engineering. Dimensioning techniques, auxiliary views and sectioning methods also are emphasized. Prerequisite: CAD 114. (SCC)

CAD 133 - Introduction to Design (5 cr)
Introduction to the engineering design process, applying math, science, and engineering standards to hands-on projects. Individual and team design solutions using 3D modeling, problem solving, research, and documentation. Prerequisite: CAD 121, 124. (SCC)

CAD 134 - Applied Precision Measuring (1-3 cr)
Areas of emphasis in this course will include the terminology and use of measuring instruments for fabrication and machining, for layout work, and to determine compliance with dimensions and tolerances on engineering drawings. Covers the fundamental skills required to perform basic and precision dimensional measurements and an introduction to the concepts of Statistical Process Control (SPC). Gain proficiency in using rules, scales, tape measures, protractor, calipers, lasers, micrometers, dial gage, height gage and coordinate measuring machine. (SCC)

CAD 137 - Applied Technical Math and Physics (3 cr)
This course continues with the concepts introduced in CAD 111 and 121. Application problems in algebra, practical geometry and trigonometry are presented as well as introducing engineering math applications in statistics and vectors. Prerequisite: CAD 111. (SCC)

CAD 141 - Shop Practices (2 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 tools used in a typical shop. Joining techniques such as welding, brazing, soldering and mechanical fasteners are included. (SCC)

CAD 142 - CAD Solid Modeling/Graphics 1 (3-5 cr)
This course offers advanced computer aided drafting techniques in three-dimensional solid modeling. Individual part files, assembly files, and application files in weldments and sheet metal are emphasized. Solid model prototype printing and CNC applications are also included. (SCC)

CAD 241 - CAD Solid Modeling/Graphics 1 (3-5 cr)
This course offers advanced computer aided drafting techniques in three-dimensional solid modeling. Individual part files, assembly files, shop drawings and application files are emphasized. Solid model prototype printing and CNC applications are also included. (SCC)

CAD 242 - Mechanical Design Fundamentals (5 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. Prerequisite: CAD 121,137, 142. (SCC)

CAD 243 - Building Systems Mechanical CAD Applications (3 cr)
This course introduces advanced concepts in CAD and applies these skills in introductory mechanical building systems for architectural, structural, and civil drafting and design projects. Students research and begin to explore the 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 124. (SCC)

CAD 244 - Structural CAD Applications (3-4 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 246 - Manufacturing Processes and Precision Measuring (2-3 cr)
This course is a comprehensive study of the processing of materials, industry standards and manufacturing techniques used in industry. It also incorporates the application of precision measuring tools for manufacturing, quality, and design considerations. (SCC)

CAD 247 - Shop Practices (2 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 tools used in a typical shop. Joining techniques such as welding, brazing, soldering and mechanical fasteners are included. (SCC)

CAD 251 - Applied Tolerances and GD&T (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 121, 124. (SCC)

CAD 252 - CAD Solid Modeling/Graphics 2 (4-5 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 254 - 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: CET 245. (SCC)

CAD 255 - Technical Applications I (3-5 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: CAD 121, 124, 137, 141, 142. (SCC)

CAD 256 - Mechanical CAD Applications (3-4 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 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 260 - Fabrication and Piping CAD Applications (3 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 and Management (3-5 cr)
This advanced course is structured to correlate all technical disciplines covered in design and mathematics courses. Power transmission systems and power requirements, design techniques for specific mechanical systems, new product design and documentation are emphasized. Projects are managed with team involvement and planning software and then presented in a formal engineering report format. Prerequisite: CAD 124, 137, 241. (SCC)

CAD 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)

CAD 264 - Technical Applications II (2-5 cr)
The course continues with the applications offered in CAD 255 with emphasis on special projects related to manufacturing practices and shop personnel interactions. Prerequisite: CAD 255. (SCC)

CAD 265 - Manufacturing and Measuring Systems (2-3 cr)
Areas of emphasis in this course will include the terminology and use of manufacturing systems, measuring instruments for fabrication and machining, for layout work, and to determine compliance with dimensions and tolerances on engineering drawings and an introduction to the concepts of Statistical Process Control (SPC). Gain proficiency in using precision measuring tools and coordinate measuring machines. (SCC)

CAD 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

CAD 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

CAD 268 - Schematics/Advanced CAD (3 cr)
This course introduces basic CAD Schematic Drafting for electronics, industrial electricity, and hydraulic/pneumatic systems. The course includes advanced functions of CAD and Solid Modeling applications. Prerequisite: CAD 124,142. (SCC)

CAD 269 - Civil CAD Applications (3-4 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 APPRENTICESHIP, AGC

CARPN 110 - AGC Carpenter Year 1-1 (4 cr)
Introduction to trade, OSHA 10 Construction, Industrial truck assessment, First Aid / CPR, Forklift, Safety. Prerequisite: Permission of the Inland Northwest Chapter Associated General Contractors (AGC) apprenticeship. (SCC)

CHEMISTRY

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 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, the 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. Credit will not be granted for both CHEM 115 and CHEM 116. (SCC)

CHEM 116 - Reactions: Our Actions and Inactions (5 cr)
This course is for non-science majors. It covers basic chemical principles and reactions in the context of current chemical and environmental issues such as climate change, air, water, and soil pollution, acid rain, plastics, pharmaceutical products, and nuclear reactions among other current issues that affect our planet. This is a non-lab physical science course, and credit will not be granted for both CHEM 115 and CHEM 116. (SFCC)

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 of 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 with a 2.0 or better, 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 with a 2.0 or better, or permission of instructor. (SCC, SFCC)

CHEM& 131 - Intro to Organic/Biochemistry (5 cr)
A survey of organic chemistry and biochemistry for allied health sciences, for students who have already completed a general chemistry course. Includes chemical structure, properties, and reactivity of major functional classes of compounds relevant to living things. Fulfills laboratory science requirement for AA degree, but does not satisfy the three-quarter chemistry requirement of the SCC pre-nursing DTA. Students should verify with their intended program whether a one-, two-, or three-quarter chemistry series is required. Prerequisite: CHEM & 121 with a grade of 2.0 or higher. (SCC)

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. (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, 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: Currently enrolled in or have taken: MATH& 141 or higher level math courses, or permission of instructor. (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 with a 2.0 or better, 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 with a 2.0 or better, 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 alkyl halides. 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 and CHEM& 251 with a 2.0 or better, and concurrent enrollment in CHEM& 252 (or permission of instructor). (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 alpha-substitution 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 and CHEM& 252 with a 2.0 or better, and concurrent enrollment in CHEM& 253 (or permission of instructor). (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 lectures in the mechanistic approach of chemical synthesis and instrumentation. Prerequisite: CHEM& 241 and CHEM& 251 with a 2.0 or better, and concurrent enrollment in CHEM& 242 (or permission of instructor). (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 and CHEM& 252 with a 2.0 or better, and concurrent enrollment in CHEM& 243 (or permission of instructor). (SCC, SFCC)

CHEM 260 - Biochemistry (5 cr)
Course covering modern biochemistry that emphasizes a broad understanding of chemical events in living systems in terms of metabolism and structure-function relationships. Suitable for pre-major students that are interested in health-related careers such as medicine, dentistry, pharmacy, and medical technology. Prerequisite: CHEM& 242. (SFCC, SCC)

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)

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)

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)

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. (SCC, SFCC)

CMST 103 - Effective Listening (3-5 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 120 - Communication for College Success (3-5 cr)
Many students come to Spokane Community College lacking the communication skills needed for competent and professional interaction with those they encounter while pursuing their advanced education. This course is designed to provide the necessary communication tools needed by students who are new and/or returning to the college setting by identifying important communication principles that are relevant to academic success. (SCC)

CMST 121 - Job Communication Skills (2-5 cr)
This course provides students the opportunity to develop and improve their communication competence in the workplace. Students have the opportunity to apply verbal, non-verbal and listening communication skills to workplace contexts, including interviewing and resumes. The course is designed to meet the needs of transfer and professional/technical students. (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& 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 the fundamental principles of planning, researching, developing, writing and delivering an effective public address. Students learn how to adapt to various audiences and rhetorical situations while composing formal outlines for informative, persuasive, and special occasion speeches. Students learn the principles of how to incorporate visual aids and how to adapt their speeches to available and emerging technology. Students gain confidence as speakers through the study and practice of a wide variety of proven delivery techniques and styles. (SCC, SFCC)

CMST 226 - Gender Communication (5 cr)
Gender communication explores the intersection of communication, gender, and culture. Students investigate the ways communication practices and gender inform one another with consideration of allied topics such ability, class, race, and sexuality. Students apply gender communication theories to examine how gender is constructed, maintained, and challenged in various contexts such as organizations, education, interpersonal, and mediated communication. (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. (SCC, SFCC)

CMST 229 - Argumentation and Advocacy (5 cr)
Argumentation and Advocacy teaches students the theory and practices associated with analyzing, constructing, delivering and responding to arguments -- in writing and orally -- on important topics of controversy. Students develop skills in stock issues analysis, case construction, selecting and using evidence in support of argument, responding to arguments and cross examination, and the effective delivery of arguments to critical audiences. (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. (SCC)

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. (SCC)

CMST 280 - Public Relations and Social Media (5 cr)
An introduction to the basic principles of public relations and social media from both personal and organizational perspectives. Areas of interest will include public relations, internal and external strategic communication, public opinion, image management, media relations, and the use of social media. (SCC)

CMST 287 - Communication in Organizations (5 cr)
This course is designed to enhance students' understanding of theories and practices within evolving and diverse organizational contexts. This course focuses on communication systems, channels, networks, and barriers in organizations. Through application and analysis, students learn vital communication skills to improve teamwork, meeting management, collaboration, professionalism, giving and receiving feedback, conflict resolution, listening, and interpersonal and intercultural competencies necessary for success in a variety of organizations. (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)

CMST 320 - Professional Communication (5 cr)
This course examines and applies communication theory, principles, and skills in career development and management. Professional Communication covers visual presentation skills, interviewing, listening, portfolio building, and employment and promotion negotiation. Emphasis will be placed on the effective application of these skills to communicate both orally and visually for a range of professional positions. Prerequisite: Applied BAS degree students only. (SFCC)

CMST 430 - Organizational Communication (5 cr)
This course is the study of communication and its practice, effects and improvement in collective organizations; the role of communication in organizational assessment and change; the relationship between communication and leadership practices and organizational effectiveness, and the discursive nature of personal and corporate image and credibility. Prerequisite: Applied BAS degree students only. (SFCC)

COMPUTER APPLICATION TECHNOLOGY TRAINING

CATT 102 - Microsoft Outlook (2.5 cr)
Students learn and apply features of Microsoft Outlook to create and manage email, calendar, meetings, appointments, contacts, and tasks. (SCC)

CATT 120 - Microsoft Word I (2.5 cr)
Students learn and apply fundamental functions of word processing software to create documents. Students learn to apply basic formatting and editing features to graphics, characters, and paragraphs. . (SCC)

CATT 121 - Microsoft Word II (2.5 cr)
Students learn and apply intermediate functions of word processing software to create documents. Students learn to apply intermediate formatting and editing features to graphics, characters, and paragraphs. (SCC)

CATT 122 - Microsoft Access I (2.5 cr)
Students learn and apply theory and application in the fundamental concepts and terminology of relational database management. Students plan and design databases in addition to building and modifying tables and forms. (SCC)

CATT 123 - Microsoft Access II (2.5 cr)
Students learn and apply intermediate functions of Microsoft Access to view and organize information, define relationships, produce reports, and integrate with other applications. (SCC)

CATT 128 - Desktop Publishing (2.5 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. (SCC)

CATT 138 - Microsoft Excel I (2.5 cr)
Students learn and apply the fundamental functions of Microsoft Excel required to create, modify, format, and print spreadsheets. (SCC)

CATT 139 - Microsoft Excel II (2.5 cr)
Students learn and apply intermediate functions, formulas, and charts of Microsoft Excel to analyze and manage data. (SCC)

CATT 190 - Microsoft PowerPoint I (2.5 cr)
Students learn and apply the fundamentals of presentation software to create and modify presentations; and use design templates, the Office Clipboard, Format Painter and Word Art in addition to the drawing tools. (SCC)

CATT 191 - Microsoft PowerPoint II (2.5 cr)
Students learn and apply intermediate 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. (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. (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. (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. (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. (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. (SCC)

CATT 239 - Advanced Microsoft Excel II (2.5 cr)
This course is a continuation of CATT 238. Students record, run and edit macros; extract data and apply data filters; use analysis tools; and learn how to collaborate in workgroups. (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 103 - Mobile Devices (2 cr)
Students will learn basic mobile device skills for a business environment. This will include troubleshooting devices, security of devices, and how to manage devices through mobile device management software. (SCC)

CIS 105 - Computer Fundamentals for Vocations I (1-5 cr)
This course introduces students to basic computer concepts and practical application of relevant application software. Course content may vary depending on the individual vocational program's needs. (SCC)

CIS 106 - Network Math (2 cr)
This course covers math concepts for Network Design and Administration Students, and covers objectives such as IP addressing, subnetting, number system conversion, and systematic troubleshooting using network models. Prerequisite: concurrently enrolled in CIS 108. (SCC)

CIS 107 - Software Math (2 cr)
This course covers math concepts for Software Development Students and covers objectives such as floating-point math, assignment operations vs. equations, computer precedence, Boolean logic, and math-related computer programming concepts. (SCC)

CIS 108 - Computer Math (3 cr)
Previously known as MATH 104. This course consists of general computer math concepts for all CIS AAS students. Students then continue with either math targeted to specific Network Design and Administration objectives or specific Software Development objectives. (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 - HTML5/CSS3 (5 cr)
This course introduces basic concepts of structuring and styling a static website with Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). (SCC)

CIS 112 - Web Graphics with Photoshop (3 cr)
This course provides an in-depth exploration of how to plan, design and execute visually appropriate images using Adobe Photoshop. Masks, text, effects, and general photo composition are utilized to create posters, 3-d images, and images which can eventually be utilized in website design and construction. (SCC)

CIS 114 - Frontend Development I (5 cr)
This course reinforces basic programming concepts through teaching the fundamentals of the client-side JavaScript language as well as Document Object Model (DOM) scripting. Included is an introduction to jQuery or other JavaScript library and 3rd party plugins. Prerequisite: CIS 111 and CIS 146 both with a 2.0 or better or instructor permission. (SCC)

CIS 117 - Frontend Development II (5 cr)
Students will learn the fundamentals of writing applications using a popular front-end framework. Students create scalable single page applications (SPA) for any type of website. Prerequisite: CIS 114 with a 2.0 or better 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 MySQL, 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. (SCC)

CIS 130 - Responsive Web Design (5 cr)
This course will teach how to utilize responsive website design to create websites that can be professionally viewed on a variety of mobile devices, tablets, laptops and desktop computers with varying screen sizes. Prerequisite: CIS 111 with a 2.0 or better or instructor permission. (SCC)

CIS 134 - Virtualization Technologies (3 cr)
This course is designed to provide students with a working knowledge of VMware virtualization technologies. Students will learn the installation, configuration, and setup of virtual machines, how to design, plan, performance-tune, optimize, upgrade, troubleshoot and repair a virtual environment. (SCC)

CIS 146 - Introduction to Programming (5 cr)
This course will teach core programming concepts using examples from weakly and strongly typed programming languages. Debugging techniques are utilized by students to solve beginning-level software development problems. The understanding and mastery of the terms, concepts, and theories of today's software developers are the main objectives of this course. (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 software 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: CIS 146 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 200 - Cisco DevNet (5 cr)
This course introduces topics that focus on learning and applying basic software and networking skills to integrate and automate network infrastructure. Prerequisites: CIS 250, CIS 206 (SCC)

CIS 201 - IT Essentials - A+ (5 cr)
This course maps to objectives for A+ Certification by introducing basic to advanced concepts in PC hardware, software, and troubleshooting. Basic concepts in networking, security, mobile devices, peripherals, and professionalism are also introduced. (SCC)

CIS 203 - AWS SysOps Administrator (5 cr)
This course introduces topics to prepare for the AWS Certified SysOps Administrator – Associate certification by providing an overview of the technologies (CloudWatch, Elastic Load Balancer, EC2, RDS, VPC, Network ACLs, Security Groups, DDOS, S3, KMS, IAM, Systems Manager, Route 53, Direct Connect, and CloudFormation) used to provision, deploy and monitor resources in the Amazon Web Services cloud platform. Prerequisite: CIS 207 (SCC)

CIS 206 - Introduction to Linux/Unix (5 cr)
This course introduces the LINUX/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 LINUX/UNIX, such as installing and configuring applications are presented. (SCC)

CIS 207 - AWS Solutions Architect I (5 cr)
This course introduces topics to prepare for the AWS Certified Solutions Architect - Associate certification by providing an overview of the technologies (IAM, S3, CloudFront, Storage Gateway, Snowball, EC2, CloudWatch, CLI, Lambda, Route 53, RDS, DynamoDB, Redshift, ElastiCache, Aurora, VPC, SQS, SNS, Elastic Transcoder, Kinesis, API Gateway) used to architect resources in the Amazon Web Services cloud platform. Prerequisite: CIS 246 (SCC)

CIS 208 - AWS Solutions Architect II (5 cr)
This course expands on the AWS Solutions Architect I topics to prepare for the AWS Certified Solutions Architect – Professional certification by providing in-depth knowledge of the Amazon Web Services cloud platform. Prerequisite: CIS 207 (SCC)

CIS 210 - Introduction to Cloud Platforms (5 cr)
This course compares the resources of the Amazon Web Services cloud platform with other popular cloud platforms like Microsoft Azure and Google Cloud. (SCC)

CIS 213 - Advanced Linux/Unix (5 cr)
Students with experience in LINUX/UNIX servers use skills to administer LINUX/UNIX systems in a network environment. They maintain LINX/UNIX systems, configure and troubleshoot the Network File System (NFS), and configure a Network Information Service (NIS) environment. Prerequisite: CIS 206, 250. (SCC)

CIS 217 - Mobile Development I (5 cr)
This course presents the standards of creating Mobile Applications through the use of either Android Operating System Development and the Java Language or iPhone/iPad through the Swift language. Prerequisite: CIS 282 with a 2.0 or better or instructor permission. (SCC)

CIS 218 - Mobile Development II (5 cr)
This course presents advanced concepts of creating Mobile Websites through the use of either Android Operating System Development and the Java Language or iPhone/iPad through Swift. In addition, the building of mobile application aware websites through standard Application Programming Interfaces (API) will be presented. Prerequisite: CIS 217 with a 2.0 or better or instructor permission. (SCC)

CIS 219 - Mobile Development III (5 cr)
This course presents advanced concepts of creating Mobile Websites through the use of either Android Operating System Development and the Java Language or iPhone/iPad through the Objective-C language. In addition, the building of mobile application aware websites through standard Application Programming Interfaces (API) will be presented. Prerequisite: CIS 218 with a passing grade of 2.0 or better or permission of the instructor. (SCC)

CIS 221 - Mobile IV-IOS 1 (5 cr)
This course presents the standards of creating Mobile Applications through the use of Advanced Apple iOS Development and the Swift programming language. Prerequisite: CIS 217 or permission of the instructor. (SCC)

CIS 222 - Mobile V-IOS 2 (2 cr)
This course presents the standards of creating Mobile Applications through the use of Apple iOS Development and the Swift programming language. Prerequisite: CIS 221 or permission of the instructor. (SCC)

CIS 225 - Content Management Systems (5 cr)
This course will provide an overview of existing Content Management Systems (CMS) and how to utilize these to create simple integrated websites. Prerequisites: CIS 230 with a passing grade of 2.0 or better or permission of the instructor. (SCC)

CIS 230 - PHP I (5 cr)
Students learn how to create powerful, interactive, database-driven web sites using PHP and a popular Model-View-Controller (MVC) framework. Prerequisite: CIS 114 and 126 with a 2.0 or better or instructor permission. (SCC)

CIS 233 - PHP II (5 cr)
This course is an extension of CIS 230 and provides students with a deeper understanding of creating powerful, interactive, database-driven web sites using PHP and a popular Model-View-Controller (MVC) framework. Students will learn how to implement authentication for a web application. Prerequisite: CIS 230 with a 2.0 or better or instructor permission. (SCC)

CIS 234 - Network Scripting (3 cr)
Students learn the basic principles of network scripting tools and practice basic configuration and management scripting using tools such as PowerShell and Python. Prerequisite: CIS 201, 206, or permission of instructor. (SCC)

CIS 236 - Windows Server Administration (5 cr)
This course explores Windows Server Administration and covers topics for Microsoft certification exams. The course focuses on installing and configuring network services in a Windows Server environment. Prerequisite: CIS 244. (SCC)

CIS 244 - Windows Server Installation and Configuration (5 cr)
This course introduces managing, maintaining and troubleshooting devices, users, groups, and resource access in a Windows Server environment. Prerequisite: CIS 201. (SCC)

CIS 246 - AWS Cloud Practitioner (2 cr)
This course is designed to provide students with a working knowledge of AWS cloud technologies. Students will learn fundamental cloud concepts, pricing, services, security, and architecture. (SCC)

CIS 247 - AWS Cloud Architecting (3 cr)
This course covers the fundamentals of building IT infrastructure on AWS. The course teaches students how to optimize use of the AWS Cloud by understanding AWS services and how they fit into cloud-based solutions. Prerequisite: CIS 246 (SCC)

CIS 250 - Cisco I Introduction to Networks (5 cr)
Cisco I introduces students to networking architectures, models, protocols, and components. Topics include network terminology, media, equipment, OSI and TCP models, basic network device configuration, and IP addressing. Prerequisites: CIS 106, 108, and 201 or instructor permission. (SCC)

CIS 251 - Cisco II Switching, Routing, & Wireless I (5 cr)
This course introduces topics focusing on switching technologies and router operations that support small-to-medium business networks. Topics include basic security fundamentals, lawyer two concepts and small network configuration, VLANs and Inter-VLAN routing, DHCP for IPv4 and IPv6, STP and EtherChannel, and first hop redundancy protocols. Prerequisite: CIS 250 with a passing grade of 2.0 or better, or instructor permission. (SCC)

CIS 252 - Cisco III Switching, Routing, & Wireless II (5 cr)
This course continues with switch and router operations, including intermediate layer 2 security, WLAN, and routing concepts and configuration. Students are introduced to dynamic and static IPv4 and IPv6 routing and troubleshooting techniques. Prerequisite: CIS 250 and CIS 251 with a grade of 2.0 or better, or instructor permission. (SCC)

CIS 253 - Cisco IV Enterprise Networking Security and Automation (5 cr)
This course introduces wide area network (WAN) technologies and concepts, such as secure remote access, virtualization, automation, and software defined networking. Basic enterprise network design, management, and troubleshooting are also covered. Prerequisite: CIS 250, 251, 252 with a passing grade of 2.0 or better or instructor permission. (SCC)

CIS 256 - C# (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 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 258 - Backend Development I (5 cr)
This course presents concepts of creating web sites through the use of a backend server architecture such as Node.js and creating web services, API's, and dynamic web pages that are connected to a database for storage of information. Using a common front-end framework, such as Angular, web pages will be built to connect the browser to the back-end server process through a RESTful API. Prerequisite: CIS 114 with a passing grade of 2.0 or better or instructor permission. (SCC)

CIS 259 - Backend Development II (5 cr)
This course is an extension of CIS 258 and provides students with a deeper understanding of creating backend applications using Node.js. Prerequisite: CIS 117 and CIS 258 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 263 - Advanced Windows Server (5 cr)
This course explores Windows Server Administration and covers topics for Microsoft certification exams. The course focuses on advanced topics such as managing, securing, and troubleshooting networking features and services in a Windows Server environment. Prerequisite: CIS 236. (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 250. (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 259 and CIS 233 with a passing grade of 2.0 or better or permission of instructor. (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 277 - Database Administration (5 cr)
This course provides a thorough introduction to database administration principles and practices necessary to perform Microsoft SQL Server administration in an enterprise environment and helps in preparing for the Microsoft Certified Solutions Associate Exam 70-462. Prerequisite: CIS 236. (SCC)

CIS 282 - Programming Principles (5 cr)
Students learn object-oriented fundamentals using a modern programming language. Students are challenged to solve problems in an object-oriented fashion. Prerequisite: CIS 146 with a 2.0 or better or permission of instructor. (SCC)

CIS 283 - Prog Principles II (5 cr)
This course is an extension of CIS 282 and provides students a deeper understanding of using object-oriented programming techniques for solving problems. Prerequisite: CIS 126 and 282 with a 2.0 or better or instructor permission. (SCC)

CIS 284 - Ruby on Rails (5 cr)
Students use the Ruby language and Rails web framework to create scalable and robust web applications. Students learn to develop server-side applications to interface with web pages, making web sites more dynamic and powerful using database driven technologies. Web 2.0 ideas are implemented using AJAX technologies. Prerequisite: CIS 283 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 286 - Cisco Emerging Technologies (3 cr)
Students are introduced to new and in-demand Cisco Technologies and certification path planning. Topics will vary and will include a variety of learning materials and resources. Prerequisite: CIS 250, 251, and 252 or instructor permission. (SCC)

COMPUTING-COMPUTER APPLICATIONS

CAPPS 100 - Beginning Computer Skills (3 cr)
For new computer users. A beginning class with a focus on computer terminology and skills. Topics include Windows, Internet, beginning email, and beginning office software applications. (SFCC)

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 141 - Word I (2 cr)
Microsoft Word at an introductory level. Students will learn how to navigate, create, edit, format, and save documents. Students will also be able to use headers and footers, lists, pictures, clip art, and tables to enhance documents. (SFCC)

CAPPS 142 - Word II (2 cr)
Microsoft Word at an intermediate level. Students will learn how to create and use styles, WordArt, drawing tools, outlines, charts, web pages, and track changes. Prerequisite: CAPPS 141. (SFCC)

CAPPS 151 - Excel I (2 cr)
Microsoft Excel at an introductory level. Students will learn how to navigate worksheets and workbooks, use formulas and functions, format worksheets and cells. (SFCC)

CAPPS 152 - Excel II (2 cr)
Microsoft Excel at an intermediate level. Students will learn how to use IF functions, create charts and tables, sort and filter data, and use graphic elements. Prerequisite: CAPPS 151. (SFCC)

CAPPS 161 - Access I (2 cr)
Microsoft Access at an introductory level. Students will learn how to create and work with tables, sort and filter records, create and use queries. (SFCC)

CAPPS 162 - Access II (2 cr)
Microsoft Access at an intermediate level. Students will learn how to create and modify forms, reports, table relationships, and queries. Prerequisite: CAPPS 161. (SFCC)

CAPPS 171 - PowerPoint I (2 cr)
PowerPoint at an introductory level. Students will create and edit presentations. Students will be able to format slide elements, insert and apply slide transitions, use themes, clip art, and speaker notes. (SFCC)

CAPPS 172 - PowerPoint II (2 cr)
PowerPoint at an intermediate level. Students will be able to enhance a presentation with graphic elements, insert sound, and create photo albums. Students will also be able to apply and modify slide transitions and animation effects, use charts and graphics in presentations. Prerequisite: CAPPS 171. (SFCC)

CAPPS 180 - 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 185 - Applied Social Media I (3 cr)
This course is the study of the theory and practice of social networks. Emphasis is placed on understanding social networks and how they are utilized for business. Students will create, personalize, and manage various social media accounts. (SFCC)

COMPUTING-COMPUTER SCIENCE

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. Prerequisite: CS& 141 or permission of instructor. (SFCC)

CS 143 - Computer Programming III (5 cr)
Advanced concepts of modern programming that continue the ideas introduced in CS 142. Topics include classes and interfaces, inheritance, exceptions, recursion, analysis of algorithms, and some dynamic structures (lists, stacks, trees) as well as design principles. Uses Java programming language. Prerequisite: CS 142 with a 3.0 or higher, or instructor permission. (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 CS 223 or permission of instructor. (SFCC)

CS 223 - Programming for IT (5 cr)
This course focuses on fundamental principles of programming and scripting using Python language. 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. Programming assignments include procedural techniques and object-oriented programming. Prerequisite: IS 103 and MATH 140 or higher, with minimum grades of 2.0, or instructor permission. (SFCC)

CS 226 - Python for Programmers (5 cr)
This is an introductory course in programming. Students will use Python to learn to build programs. In particular, control structures, loops, conditionals, functions, data types, and variables are covered. Students will learn the core values of good programming processes and problem-solving. Prerequisite: MATH 88 or higher. (SFCC)

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)
This course is an introduction to the AAS Information Technology degree. In this course students will explore the degree options and courses to build a personalized degree plan. Students will also be introduced to resources available to them as a student at SFCC and in the degree program. This course will cover fundamental student success skills and strategies. This is not a technical course. Concurrent enrollment in IS 102 and IS 103. (SFCC)

IS 102 - IS and Cybersecurity Careers (2 cr)
In this course students learn about IS and Cybersecurity careers and the requirements to start or advance in these career fields. This course focuses on identifying current career paths, required skills and industry requirements for entry-level through advanced career jobs. This is not a technical course. Concurrent enrollment in IS 101 and IS 103. (SFCC)

IS 103 - Information Technology Fundamentals (5 cr)
In this course students learn computing hardware, operating systems, software applications and computer network concepts. Topics include but are not limited to fundamental computing concepts, hardware, operating systems, file systems, networking, security concepts and how all these elements interact. Students entering this course should have basic Windows computer skills. This course is an intensive survey course that covers a broad range of computing concepts that are used in Information Technology and Cybersecurity careers. Concurrent enrollment in IS 101 and IS 102. (SFCC)

IS 106 - Fundamental IT Applications (5 cr)
In this course students learn fundamentals of information technology related applications available and used in all major industries. Students work on their knowledge of word processing, spreadsheets, databases, and collaborative applications. Students will use common office suites, such as Microsoft Office. Areas of emphasis will include advanced use of included features, identifying the most suitable application for common business functions and project-based learning. This course will have guided activities where students apply the theoretical concepts of industry standard software. Prerequisite: IS 103 with a 2.0. (SFCC)

IS 125 - Linux Fundamentals (5 cr)
In this course students learn about the fundamentals of the Linux operating system by being immersed in the Linux environment. Students will learn the key components of Linux as used in the IT and cybersecurity fields. This will include but is not limited to command-line navigation, shell scripting, remote management and server administration. This course will have guided activities where students apply theoretical knowledge of Linux fundamentals. Prerequisite: IS 103 with a 2.0. (SFCC)

IS 132 - Computer Ethics and 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 141 - Cyber Defender 1 (5 cr)
In this course students will apply their knowledge of networking, Linux and Windows operating systems, the Internet, Web services and log management. This course is a hands-on mentor led learning course with optimized lecture and instruction. Students in this course should be able to work without precise specific direction, instruction or supervision. Tasks and objectives are provided along with general guidance and tools to accomplish the required outcomes. Prerequisite: IS 125 and IS 165. (SFCC)

IS 165 - Networking Fundamentals (5 cr)
In this course students learn data and communication networking fundamentals. This includes topics such as hardware, protocols, topologies, OSI models, network services and network applications. This course will have guided activities where students apply foundational concepts by examining sample or live network traffic. Prerequisite: IS 103 with a 2.0. (SFCC)

IS 166 - Secure Mobile Computing (5 cr)
In this course students examine mobile computing platforms, wireless and cellular networking concepts. Students will learn current wireless and cellular standards and common practices to protect wireless and cellular connections. Topics include but are not limited to mobile operating systems, enterprise mobile device management approaches and solution strategies. Prerequisites: IS 165 with a 2.0. (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 215 - Operating Systems (5 cr)
In this course students study the functions and structures associated with operating systems. This will include but is not limited to process management, memory management, and auxiliary storage management. This is an intensive theory course that examines the complex related elements of how modern operating systems are designed and function. Prerequisite: IS 103 and MATH 088 or higher with 2.0. (SFCC)

IS 222 - Secure Cloud Computing (5 cr)
In this course students examine how to implement and secure cloud computing resources. Foundational concepts of virtualization and 'as a service' will also be covered. This course will have guided activities that introduce students to the applied use of cloud services. Prerequisite: IS 165 with 2.0. (SFCC)

IS 228 - Internet Servers (5 cr)
This course is a capstone style course intended for students to showcase what they have learned during their program. They will complete tasks based on foundational technology support principles that push students to infer and apply the concepts of previous coursework. They may be required to complete project work that is different than previous coursework using the knowledge of technology accumulated during their studies. They will be required to develop a strategic plan to meet business needs, select a technical solution, install and configure the solution. The implementation phase will require applying concepts, troubleshooting potential errors, and solving potential implementation problems without direct instructor guidance. This is a course with minimal instruction and is primarily a test of students' total learning throughout their program implemented via hands-on labs. Prerequisite IS 262 with a 2.0. (SFCC)

IS 234 - Computer Forensics (5 cr)
In this course students learn the procedural process to conduct a computer forensic investigation. They will use industry standards to collect, preserve, examine and provide their findings of digital evidence. This course will focus on simulated investigation of a staged computer case. Students will apply the investigation standards and concepts to identify, process, preserve and present evidence they discover during their investigation. This course will have guided activities where students investigate a simulated crime. Prerequisite: IS 103 with 2.0. (SFCC)

IS 241 - Cyber Defender 2 (5 cr)
In this course students will expand their applied knowledge of network traffic and packets, malware, memory and drive forensics. This course is a hands-on mentor led learning course with optimized lecture and instruction. Students in this course should be able to work without precise specific direction, instruction or supervision. Tasks and objectives are provided along with general guidance and tools to accomplish the required outcomes. Prerequisite: IS 141. (SFCC)

IS 243 - Malware Analysis and Exploitation (10 cr)
In this course students will apply their knowledge of malware, vulnerabilities, exploitation and hacker strategies. This course is a hands-on mentor led learning course with optimized lecture and instruction. Students in this course should be able to work without precise specific direction, instruction or supervision. Tasks and objectives are provided along with general guidance and tools to accomplish the required outcomes. Prerequisite: IS 241. (SFCC)

IS 244 - Network Security I (5 cr)
In this course students will study foundational concepts of cybersecurity. Topics include identifying bad actors, risk analysis, common resources, attack and defense methods, and common language. This course includes theory and hands-on activities to apply concepts in simulated environments. Prerequisite: IS 165 with a 2.0. (SFCC)

IS 245 - Network Security II (5 cr)
In this course students learn current network defensive concepts and technologies. Topics include but are not limited to types of malicious software, network defense tools, secure network design, cryptography elements and applications, legal issues surrounding cybersecurity. This course will have guided activities where students identify potential malicious activity using industry standard software and techniques. Prerequisite: IS 244 with a 2.0. (SFCC)

IS 248 - Security Operation Center (5 cr)
In this course students learn current network defensive concepts and technologies. Topics include but are not limited to: types of malicious software, network defense tools, secure network design, cryptography elements and applications, and legal issues surrounding cybersecurity. Working as a SOC analyst offers cybersecurity professionals a fast-paced, collaborative, and challenging career path that offers plenty of opportunities to continue to learn and advance in seniority while gaining more experience. SOC Analyst Level 1 roles are great entry points into the security field for those with the foundational skills learned in the classroom. Prerequisite: IS 245 with grade of 2.5 or above. (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, NOSQL and object oriented. It also covers design concepts, SQL, normalization and database administration. This course will have guided activities where students use industry standard software and technique to design, build and use a database. Prerequisite: IS 165 with a 2.0. (SFCC)

IS 262 - Network Management (5 cr)
In this course students examine the technical management of computer networks including servers and workstations. Students, who are expected to understand the principles of networking prior to enrollment, will learn to install, manage and maintain a network. This course stresses concepts and practical usage of many types of network services such as DNS, DHCP and LDAP. Hands-on activities will include configuration and use of networking operating systems such as Windows Server or Linux. Prerequisite: IS 165 with a 2.0. (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)

IS 288 - Cooperative Education Work Experience (No Seminar) (1-15 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. (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 - Skin and Nail Concepts (6 cr)
Students are introduced to natural nail structure and skin structure and care. The knowledge includes the theory of manicuring, pedicuring, skincare, facials, waxing, lash and brow lift and tints, and infection control. Professionalism, communication, and salon writing skills are introduced. Mathematical concepts to include fractions and the metric system are introduced for daily use in the salon. (SCC)

COS 102 - Skin and Nail Applications (10 cr)
Students are introduced to natural nail and skin care applications and processes. The practices include manicuring, pedicuring, skincare, facials, waxing, spray tanning, lash and brow lift and tints, and infection control. Professionalism, communication, and salon writing skills are implemented. (SCC)

COS 111 - Cosmetology Foundation Concepts (6 cr)
Students are introduced to the basic concepts of cosmetology. Theories practiced include haircutting, permanent waving, hair styling, coloring, shampooing, rinsing, draping and thermal styling. Safety and infection control is emphasized. Communication and salon report writing skills are practiced. Formulation using addition and subtraction are emphasized. (SCC)

COS 112 - Cosmetology Foundation Applications (10 cr)
Students are introduced to the basic application techniques and clinical practice on models and mannequins in the areas of haircutting, thermal styling, hair shaping and styling, shampooing, rinsing and conditioning, permanent waving, color application, manicuring, and pedicuring. Safety and infection control measures are emphasized. (SCC)

COS 113 - Manicuring Concepts I (5 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 performing manicuring, pedicuring, nail preparation, acrylic sculptured nails and tip application, overlays and nail removal. Sanitation methods utilized in a salon setting are emphasized. (SCC)

COS 115 - Manicuring Concepts II (5 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 practice manicuring, pedicuring, nail preparation, acrylic sculpture, tip application, various nail overlays, nail removal, and electric filing. Safety and infection control methods are emphasized. (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 - Intermediate Cosmetology Concepts I (6 cr)
Students will learn hair and scalp conditions and disorders Special focus on chemical relaxer chemicals, braiding and hair extensions. Safety and infection control emphasized. (SCC)

COS 122 - Intermediate Cosmetology Applications I (10 cr)
Students refine their haircutting, styling, and basic color applications. Special hands-on practice of texture hair including braiding and hair extensions. Safety and infection control emphasized. (SCC)

COS 123 - Esthetics Concepts I (5 cr)
This course introduces students to the basic concepts of skincare, 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, machines, masks, massage, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, and artificial eyelashes. (SCC)

COS 125 - Esthetics Concepts II (5 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, masks, microcurrent, microdermabrasion, massage techniques, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, artificial eyelash application, make-up application, and skin analysis. Prerequisite: COS 123 and 124. (SCC)

COS 127 - Advanced Esthetics Concepts (3 cr)
This advanced course introduces the concept of lash extensions, advanced treatments for the skin of the entire body and salon record keeping. Safety and infection control procedures are emphasized. Prerequisite: COS 125 and 126. (SCC)

COS 129 - Advanced Manicuring Applications (2 cr)
Students are introduced to the advanced concepts of manicuring. Applications presented include the proper use of implements, cosmetics and materials used in manicures, pedicures, nail art, and the application of artificial nails. Prerequisite: COS 113. (SCC)

COS 131 - Intermediate Cosmetology Concepts II (6 cr)
This course focuses on electricity, haircutting and haircolor. Students will be learning effective communication and leadership skills for the salon. Students will prepare professional reports and letters. Mathematical concepts to include fractions and the metric system are introduced for daily use in the salon. (SCC)

COS 132 - Intermediate Cosmetology Applications II (10 cr)
This course focuses on intermediate practices of hair cutting, haircoloring, and other services provided in the salon. Students will put into practice their communication and leadership training into action in the lab while working with other students and clients. (SCC)

COS 135 - Esthetics Concepts III (4 cr)
This course introduces students to advanced techniques and clinical practice on clients in facials, masks, microcurrent and microdermabrasion, massage techniques, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, artificial lashes. Prerequisite: COS 125 and 126. (SCC)

COS 136 - Esthetics Applications III (5 cr)
This course introduces students to intermediate application techniques and clinical practice on clients in facials, masks, microcurrent and microdermabrasion, massage techniques, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, artificial lashes. Prerequisites: COS 125 and 126. (SCC)

COS 221 - Advanced Master Esthetics Concepts 1 (5 cr)
This course is an advanced course for estheticians to expand their knowledge and understanding of anatomy, chemistry, laser, advanced facial techniques, and understand their role in different medical settings. Prerequisite: Must hold a current WA State Esthetician license and be co-enrolled in COS 222 (SCC)

COS 222 - Advanced Master Esthetics Applications 1 (10 cr)
This lab course teaches student to perform advanced techniques, apply knowledge of chemistry as it relates to the skin, practice advanced massage, the use of advanced devices, and evaluate the outcomes of services provided. Must hold a current WA State Esthetician license and be co-enrolled in COS 221 (SCC)

COS 227 - Advanced Esthetics Applications (2 cr)
This advanced course introduces the application of lash extensions, advanced treatments for the skin of the entire body and salon record keeping. Safety and infection control procedures are emphasized. . Prerequisite: COS 125 and 126. (SCC)

COS 231 - Advanced Master Esthetics Concepts 2 (5 cr)
This advanced course focuses on skin distress, skin types, selection and utilization of skin products, protocols for the use of ingredients, wellness therapies and business skills. Prerequisites: COS 221, 222 and concurrent enrollment in COS 232. (SCC)

COS 232 - Advanced Master Esthetics Application 2 (5-6 cr)
This advanced course performs analysis of skin distress, skin types, selection and utilization of skin products, protocols for the use of ingredients, wellness therapies and the implementation of medical support practices. Prerequisites: COS 221, 222 and concurrent enrollment in COS 231. (SCC)

COS 241 - Advanced Cosmetology Concepts I (6 cr)
This comprehensive course focuses on advanced concepts of hair cutting, chemical texture, and advanced hair color. Mathematical concepts to include fractions and the metric system are introduced for daily use in the salon. Safety and infection control emphasized. (SCC)

COS 242 - Advanced Cosmetology Applications I (10 cr)
This comprehensive course focuses on advanced concepts of hair cutting, chemical texture, and advanced hair color. Mathematical concepts to include fractions and the metric system are introduced for daily use in the salon. Safety and infection control emphasized. (SCC)

COS 251 - Advanced Cosmetology Concepts II (6 cr)
This course is preparation for the state board examination, business concepts, communication, technical writing for employment preparation. Safety and infection control emphasized. Students will prepare professional reports, letters, and documents needed for a stylist to be successful are created. Mathematical concepts to include fractions and the metric system are introduced for daily use in the salon. (SCC)

COS 252 - Advanced Cosmetology Applications I (10 cr)
This course focuses on state board preparation. Interview skills, resume writing. Students will prepare letters, and documents needed for a stylist to be successful are created. Mathematical concepts to include fractions and the metric system are introduced for daily use in the salon. (SCC)

COS 261 - Advanced Cosmetology II (5 cr)
This comprehensive course prepares students for the state board exam with a complete review of the text. Hair structure chemistry, electricity, nail structures, and disorders are emphasized. Prerequisite: COS 251 and 252. (SCC)

COS 262 - Advanced Cosmetology Applications II (7-10 cr)
This comprehensive course prepares students for the state board exam with a complete review of the text. Hair styling, cutting, and chemical applications are emphasized. Prerequisite: COS 251 and 252. (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 three quarters of esthetics program (SCC)

COS 288 - Cooperative Education Work Experience (No Seminar) (1-3 cr)
Coordinated on-the-job supervised work experience related to the student's program field. Students may receive variable credits for hours of structured work experience during the quarter. The credit award is based on a maximum of one credit for every five weekly Cooperative hours during the quarter. See specific program requirements for number of credits allowed. Grading option: Pass/Fail. (SCC)

CRIMINAL JUSTICE

CJ& 101 - Introduction to Criminal Justice (5 cr)
Students will demonstrate an understanding of the U.S. Criminal Justice System in the United States. Students will learn and demonstrate an understanding of the different components of the criminal justice system; law enforcement, prosecutors, defense attorneys, judges, corrections, parole, and probation and how they work together. They will learn the history of American policing and how law enforcement techniques have evolved over the years. Students will learn the different types of crime and their causation. Finally, students will demonstrate an understanding of criminal law and the impact of crime in America. (SCC)

CJ 102 - Courts (4 cr)
Students will demonstrate an understanding of the U.S. Criminal Courts. Students will learn and demonstrate an understanding of the dynamics in the courtroom, and how cases are processed from arrest through the trial and sentencing process. Students will be challenged to demonstrate an understanding of basic evidence, rules of evidence, discovery, sentencing, Habeas Corpus Review, appeals, and court controversies such as the death penalty. Attention will be given to the juvenile court process and the special considerations given to juveniles within the court system. The course will discuss Supreme Court cases impacting juveniles and its impact on juvenile court process. (SCC)

CJ& 105 - Introduction to Corrections (5 cr)
Corrections refers to the branch of the criminal justice system describing a variety of functions typically carried out by government agencies and involving the punishment, treatment, and supervision of persons who have been convicted of crimes. The goal of the course is to help you understand how Corrections operate within the criminal justice system and provide you with a general, broad understanding of what corrections is and isn't. Specifically, the course provides an overview of the historical development of crime and corrections, sentencing, jails, prisons, prison life, probation & parole, race relations, and challenges facing correctional populations. Prerequisites: CJ& 101 and CJ 111. (SCC)

CJ& 106 - Introduction to Juvenile Justice (5 cr)
This course gives students an overview of American juvenile justice in terms of both system process and practice. It will examine the foundations of the juvenile justice system, how it has been and is being reshaped by the US Supreme Court, and how Washington and other states treat juveniles in both their juvenile and adult criminal systems. The course will identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition. This course also looks at institutionalization, rehabilitation, the treatment of juveniles, and the future of juvenile justice in America. Prerequisite: CJ& 101 and CJ 111. (SCC)

CJ 107 - Deviant & Criminal Behavior (4 cr)
This course provides a critical introduction to deviance and crime and examines the nature of deviance and crime, and the ways in which it is socially constructed. The course provides an overview of theories of deviance and crime and the major institutions and agents within the Criminal Justice System used to exercise social control in society. The course will debate the response to deviance and crime through punishment and its application to offenders. Finally, students will analyze CJS policy, implications of criminalizing deviant behavior, and the government's attempts to control it. (SCC)

CJ 108 - Traffic Enforcement and Investigations (4 cr)
Students will learn the history, purpose, and methods of traffic law enforcement and investigations. Students will learn the importance of officer discretion, ethics and professional conduct, with special attention upon their effect on public relations. Students will learn basic accident investigation, DUI investigation, and current issues and trends in traffic safety and enforcement. They will also participate in labs with traffic related investigations scenarios, tactics, and officer safety demonstrations. Force option simulator for de-escalation and use of force will be used in labs. (SCC)

CJ& 110 - Introduction to Criminal Law (5 cr)
This course will explore the history, scope, and nature of criminal law. It will analyze the general nature of the crime, constitutional limits on crime, and general principles of criminal liability. Selected topics in substantive criminal law, principles underlying the definition of crime classification of offenses, act, and intent, capacity to commit a crime, and various defenses such as the requirements of actus reus and mens rea and general doctrines such as ignorance of fact and ignorance of the law, causation, attempt, and complicity. Throughout, emphasis is placed on the basic theory of criminal law and the relationship between doctrines and the various justifications for the imposition of punishment. Students will also learn how to analyze and brief criminal cases and identify and discuss criminal issues. Prerequisites: CJ& 112 and CJ 201. (SCC)

CJ 111 - Introduction to Policing (5 cr)
Students will demonstrate an understanding of policing in America, becoming a police officer, the police role and use of discretion, police culture, personality, and stress. They will also learn about minorities in policing, police ethics and deviance, patrol operations, investigations, community policing, and the law. Finally, students will demonstrate an understanding of computers, technology, criminalistics, homeland security, and the U.S. Criminal Justice System. (Previously CJ& 104). (SCC)

CJ& 112 - Introduction to Criminology (5 cr)
This course will introduce students to the field of criminology, providing an overview of the study of criminal behavior with an emphasis on theories of crime causation. The course will analyze society's formal response to crime through the criminal justice system: policing, courts/law, and corrections, and the impact of factors such as race, class, and gender. This course also covers methods of how crime data is collected and how that data is used in the criminal justice system to change policing tactics, create crime prevention programs, and administer correctional programming. Prerequisite: CJ& 105 and CJ& 106. (SCC)

CJ 120 - Community Corrections (4 cr)
This course provides a systematic study of Community Based Corrections and its components in their historical, philosophical, social and legal context. The course will guide the student toward a critical understanding of probation, parole, diversion, pre-trial release, and intermediate sanctions. A critical analysis of the statutes and policies relating to the administration of community-based correctional programs. Specifically, this course will highlight critical issues and trends in community-based corrections as well as evaluate the practice of community corrections nationwide. Special emphasis will be placed on exploring the development of community corrections, including probation, parole, intermediate punishments, special offenders in the community, and juvenile offenders in the community. (SCC)

CJ 128 - Criminal Justice Ethics (5 cr)
This course provides an exploration of ethics and cultural perspectives in criminal justice. In presenting ethics, both the individual perspective and the organizational standpoint will be examined. The presentation of cultural perspectives is designed to aid law enforcement officers in better understanding and communicating with members of other cultures. Implicit bias training is presented to help students to examine their beliefs to address any biases which may interfere with fair and equal treatment of citizens. Prerequisites: CJ 110 and CJ 202. (SCC)

CJ 151 - Drugs, Crime, and Society (4 cr)
This course examines the relationship between drugs crime and human behavior and the theories of drug use/abuse/addiction. We will discuss the social construction of drug policies relating to controlling and criminalizing drugs and take an in depth look at the histories, pharmacology's, and patterns associated with the most popular drugs in modern society both legal and illicit. We will examine the social control of drugs implemented by Criminal Justice agencies and the connections between drugs and crime. At the heart of this discussion will be the causes and consequences of modern U.S. drug policies. We will conclude with a look at prevention and treatment and the future of drug policy and intervention. (SCC)

CJ 201 - Constitutional Law (5 cr)
This course explores the ways in which judicial interpretation of the U.S. Constitution has created and allocated power to government actors. We will thoroughly discuss how/why the U.S. Supreme Court cases center on claims of civil rights and liberties. We will examine basic Constitutional principles controlling the exercise of governmental power and using case law, we will build our understanding of judicial perspectives on the structure of the American government by analyzing major decisions of the Supreme Court. Topics covered include the practice of judicial review, approaches to Constitutional interpretation, federalism, separation of powers, executive prerogatives, and the reserved powers of the states. We will specifically analyze Amendments 1,2,4,5,6,8 and their impact on criminal justice professionals. Prerequisites: CJ& 105 and CJ& 106. (SCC)

CJ 202 - Criminal Justice Communications (5 cr)
Students will learn and practice standard techniques for gathering complete, truthful, and accurate information through interviewing witnesses, victims, and suspects. Students will learn to identify internal and external factors, which can influence the accuracy of a statement, and techniques to address these problems. Students will learn and practice courtroom demeanor, appearance, and testimony and broadcast and communicate on a police radio. Prerequisites: CJ& 112 and CJ 201. (SCC)

CJ 204 - Community Relations (5 cr)
Students will identify and discuss the history of Community Oriented Policing and apply 21st Century policing methods used to communicate and build partnerships with diverse cultures. Students will demonstrate an understanding of ethical policing as it relates to working with gangs, juvenile youth, and families. Students will learn and demonstrate an understanding of the use of force incidents that impact the community and the importance of building relationships with the media. Prerequisite: CJ& 110 and CJ 202. (SCC)

CJ 207 - Police Organization & Management (4 cr)
Students are introduced to the command structure of modern law enforcement organizations as well as the essential functions of law enforcement executives, managers, and supervisors. Students will be able to identify and discuss leadership skills to include communication, problem-solving, decision making, and motivating personnel. Finally, students will demonstrate an understanding of community needs and the designing of department goals and objectives to meet these needs. (Previously CJ& 210) (SCC)

CJ 212 - Professional Development (3 cr)
This course provides the student with an understanding of themselves and what careers may best match their preference and personality. The course will help students develop the necessary skills to plan, prepare and pursue a career in the Criminal Justice field. The course will focus on assisting students to navigate the job search world and then help students develop portfolios with references, cover letters, and resumes, and practice and hone job interviewing skills. Professionals working in their respective fields will explain requirements and share tips necessary to be considered for entry-level positions in careers such as law enforcement, corrections, juvenile justice, and advocacy. Prerequisites: CJ& 110 and CJ 202. (SCC)

CJ 213 - Criminology (3 cr)
Formerly CJ 210. 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 214 - Juvenile Delinquency (4 cr)
This course provides a study of juvenile delinquency as a social phenomenon, and the nature of delinquent offenses, offenders, and offending. Discuss the many theories explaining delinquent behavior and the various prevention strategies. Particular attention will be paid to the role of family, school, peers, and drugs in promoting delinquency. Acquaint the student with landmark decisions in Juvenile Justice and an understanding of how/why the juvenile justice system has developed its current philosophy. The course will present current evaluations/research on delinquency prevention. (SCC)

CJ 217 - Police Report Writing (4 cr)
Students will learn and practice writing complete, chronological, and accurate police reports using appropriate formats from information gathered from interviews, observations, and evidence located at the scene. Traffic tickets, evidence logs, and other common law enforcement forms, as well as more complicated documentation such as search and arrest warrants, and affidavits will be taught and practiced. Students will participate in situational simulation scenarios in a lab setting, determining probable cause, booking evidence, completing interviews of victims, witnesses, and suspects in a controlled setting, and writing a final arrest report. (SCC)

CJ 229 - Crisis Intervention Training (5 cr)
Students will demonstrate an understanding of psychology and the physical effects of duress on persons in crisis. They will identify and understand the similarity of effects of issues related to mental illness and/or substance abuse and co-occurring disorders. Students will demonstrate rapid, sensitive, safe, and skilled responses and interventions as first responders to individuals in crisis and also demonstrate knowledge of properly interacting with people suffering from duress, tragedy, and/or mental illness or developmental disabilities. Students will identify available resources and team with others to refer those in crisis to the proper interventions/ assistance. Students will demonstrate de-escalation and crisis response via situational simulation and scenarios which will include the force option simulator. Prerequisites: CJ 128, CJ 204, and CJ 212. (SCC)

CJ 234 - Terrorism & Homeland Security (4 cr)
This course provides an overview of homeland security and terrorism. Acknowledging that homeland security is primarily a response to terrorism, the course examines the threats and operations of terrorist organizations before moving on to other security concerns for Homeland Security. The structure of Homeland Security is discussed and legal issues analyzing the implementation of security measures are assessed alongside laws and directives from the early 2000s to the present day. The course discusses contested issues such as immigration and border security, cybercrime, policing, and U.S. government's plan for protecting critical infrastructure and key assets from acts of terrorism. We will also discuss the shifting role of law enforcement in combating terrorism and other security threats. (SCC)

CJ 235 - Firearms Safety (2 cr)
Students learn basic knowledge of firearms safety. This course is required to be taken concurrently with CJ 236 Firearms Qualification. This course is currently taught by Range Safety Officers at the Spokane Police Academy. All students handling firearms will be required to pass a background check. Prerequisite: Concurrent enrollment in CJ 236. (SCC)

CJ 236 - Firearms Qualifications (2 cr)
Students learn basic theory and practice of shooting, as well as handling and cleaning firearms. Students fire .9mm handguns and are required to pass the practical police course of fire. This course must be taken concurrently with CJ 236 Firearms Safety. This course is currently taught by firearms instructors at the Spokane Police Academy. Prerequisite: 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 238 - Police Safety and Tactics (4 cr)
Students will learn and demonstrate officer safety and how to respond to calls for service, including working undercover. Students will learn tactical considerations, planning, approach, field interviews, justifications for stops and interviews, planning contact and cover during traffic stops, domestic violence calls, neighbor and business disputes, robbery calls, shooting in-progress calls, school violence, and active shooters. Students will gain a basic understanding of arrests, handcuffing, searching, transporting prisoners, use of force, foot pursuits, vehicle pursuits, and setting up perimeters. Students will learn self-defense tactics, de-escalation, weapon retention, and the use of less-lethal force. They will properly demonstrate taking suspects into custody and will be trained and evaluated on the use of force options scenarios via the force option simulator. (SCC)

CJ& 240 - Introduction to Forensics (4 cr)
Students will learn the origin, history, and role of forensic science in the investigative process. The value and practical use of evidence, rules for admitting evidence, expert testimony in trial, and the unifying principles of forensics will be discussed. The major fields of forensic science will be explored and the practical application of forensic science in law enforcement will be emphasized. Students will learn to process crime scenes, lift fingerprints, and identify and collect evidence. (SCC)

CJ 249 - 21st Century Police Operations (5 cr)
This is a capstone course and students will put into practice all of what they have learned throughout the criminal justice program including basic police operations as they relate to calls for service, patrol functions, traffic, investigations, reasonable suspicion, and probable cause to arrest. Students will complete crime and arrest reports, demonstrate an understanding of the search warrant process, booking evidence, and interview witnesses, victims, and suspects. Students will demonstrate an understanding of the Incident Command System and will demonstrate in a lab setting radio calls, competing for crime broadcasts, and an understanding of tactics and officer safety issues. Finally, students will be subjected to scenarios where they must make decisions to conduct a simple field interview, make an arrest, or complete a crime report. Prerequisites: CJ 128, CJ 204, and CJ 212. (SCC)

CJ 250 - CJ Prior Learning Assessment (4 cr)
Students with current and prior law enforcement, corrections, or military experience will have their training and experience evaluated for college credit specific to the criminal justice program. Students can earn up to 54 college units towards their AAS in criminal justice. Students will complete a portfolio highlighting their training and experience. (SCC)

CJ 255 - Criminal Investigations (4 cr)
Students will demonstrate how to run a crime scene properly and demonstrate an understanding of the role forensic examiners play in the investigative process. Students will learn and demonstrate how to conduct various criminal investigations such as property crimes, violent crimes, sex crimes, auto theft, crimes against persons, robbery investigations, and homicide investigations. They will compare and contrast different techniques in interviewing an informant, suspect, witness, and victim. Students will compose a properly documented crime scene based on given facts and demonstrate an understanding of managing evidence collection and booking property. Students will prepare a case for filing consideration with a prosecuting attorney. (SCC)

CJ 266 - CJ Cooperative Education Seminar (1-2 cr)
Seminar information is administrative coordination between the employer, the course instructor, and the student to set expectations and understand the process. The course discusses the practical application of learned Criminal Justice topics and information and critical job skills to support success in co-op work experience. Concurrent enrollment in CJ 267. (SCC)

CJ 267 - Criminal Justice Cooperative Education Work Experience (1-12 cr)
Practical application of seminar (CJ 266) led topics and information in a criminal justice career path work environment which can be paid or voluntary. Prerequisite: Concurrent enrollment in CJ 266. (SCC)

CULINARY ARTS

CUL 110 - Introduction to Professional Cooking (9 cr)
This introductory course will familiarize the student with a professional kitchen. Emphasis will be placed on professional demeanor, safe and proper use of foodservice equipment, food product identification and evaluation, knife skills and classic cuts, recipe use, and measurement. Classic stock, soup, and leading sauces will be introduced along with basic sandwiches and salads. A Spokane Regional Health District Food Handlers Card is required. (SCC)

CUL 112 - Introduction to Foodservice (3 cr)
This course will introduce the basics of foodservice including the history of culinary arts, key contributors to foundational cooking skills, and the historical significance to the modern-day kitchen operation. Types, styles and significance of both national and local foodservice operations will be discussed. The importance of sustainability and being a “global steward” as it relates to our industry and our daily professional habits will be covered. (SCC)

CUL 115 - Foodservice Safety & Sanitation (3 cr)
This course will prepare students to take the National Restaurant Association ServSafe Manager Certification exam. Upon completion, the student will have sufficient knowledge of how to protect the public from foodborne illnesses. (SCC)

CUL 120 - Kitchen Management & Purchasing (3 cr)
This course will introduce the student to foundational and sustainable concepts of professional kitchen organization, equipment maintenance, purchasing methods, food storage and inventory control. (SCC)

CUL 124 - Culinary Skills Development (9 cr)
Students will progress beyond kitchen fundamentals to learn cooking methods, techniques and skills that are more advanced. Students will be introduced to classic cooking methods, as well as egg and breakfast cookery. Vegetable and starch cookery, advanced techniques in stock and broth cookery, fresh cheese preparation will be covered as well as introductory food presentation skills. Prerequisites: CUL 110 & CUL 112 (SCC)

CUL 126 - Food Science (3 cr)
This course will introduce the student to all the various fields of culinary science, the scientific method, and how it applies to professional cooking. (SCC)

CUL 131 - Restaurant Management (9 cr)
This course will provide students with Front of the House (FOH) management experience in our on-campus restaurant area. Students in the Restaurant Management lab will work directly with the Capstone project class to integrate the service/FOH functions as determined by each Capstone project. Students will learn and apply the communication skills necessary for a cohesive FOH and Back of the HOUSE (BOH) operation. Prerequisite: CUL 244 (SCC)

CUL 132 - Advanced Culinary Techniques (9 cr)
This course is designed to build upon previous cooking lab experience while covering three areas of instruction: American and World Cuisines (region specific foods, cooking methods and preparation), meat and poultry butchery and fabrication, and charcuterie (forcemeats and preservation). Prerequisite: CUL 124 (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 - Introduction to Baking and Pastry Arts (9 cr)
This course is designed to provide students with a fundamental knowledge of baking and pastries in foodservice operations. Focus will be applied to foundational knowledge of ingredients, methods and procedures as well as baking science. Production of both sweet and savory baked goods for restaurants (plated) and retail bakery sales will be covered. Prerequisite: CUL 132 (SCC)

CUL 255 - Hospitality Marketing & Menu Planning (3 cr)
This course is designed to introduce students to the design, composition and strategies involved in preparing restaurant and foodservice menus. Students will learn important social issues and nutritional trends as they analyze and create menus. Students will learn and apply the functions of social media, internal and external advertising, target markets and public relations. (SCC)

CUL 256 - Hospitality Writing (3 cr)
This course will provide students with the skills necessary to execute professional written communication commonly used in the hospitality industry. Students will learn the importance of effective and professional written and online communications between colleagues, clients, employees, employers, and other business contacts. Email, letter, contract writing, advertising copy, menu descriptions and other writing skills related to hospitality operations will be included. (SCC)

CUL 257 - Beverage Management (3 cr)
This course will introduce students to the knowledge, equipment, service and practical applications of foodservice beverage management. Students will learn the historical, practical and economic implications of alcoholic and non-alcoholic beverages such as coffee, espresso, tea, shrubs, beer, wine and spirits. Students will earn the ServSafe Alcohol permit and the Washington State Mandatory Alcoholic Server Training certificate (Class 12 and 13 for over/under 21 years of age) and learn the liability, impact and benefits of alcoholic beverage service. Basic mixology concepts will be introduced. (SCC)

CUL 261 - Foodservice Operations Management (9 cr)
Students will demonstrate proper cooking techniques, problem-solving skills, effective organization and teamwork, menu analysis and food service execution. Prerequisite: CUL 131 (SCC)

CUL 262 - Advanced Food Service Management (3 cr)
This comprehensive course covers the fundamental principles and best practices of food service management. Students will learn the skills necessary to successfully supervise food service operations, including planning, organizing, staffing and controlling. (SCC)

CUL 265 - Hospitality Accounting & Cost Controls (3 cr)
This course will introduce students to profit & loss statements, fixed and variable costs in a restaurant, and percentage-based weekly accounting system. Students will apply formulas for standard calculations, they will be introduced to control strategies from case studies and gain a practical understanding of hospitality-related profitability. (SCC)

CUL 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

CYBERSECURITY

CYBR 320 - Ethical Hacking (5 cr)
This course will prepare students with a working knowledge of how hackers attack networks and digital assets. The course will focus on penetration testing, intrusion detection, social engineering and malware investigation. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 330 - Endpoint Security (5 cr)
This course will build on students' existing knowledge of common IT resources such as Windows, Linux and network configurations to develop a strong understanding of securing operating systems, applications and network communications. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 350 - Risk Management (5 cr)
This course is an introduction to the structured process of Risk Management for cyber security professionals. This course will introduce the fundamentals of Risk Management and apply the basics to scenarios to refine the concepts. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 393 - Independent Study (5 cr)
Independent study is offered within the Bachelor of Applied Science in Cyber Security program in each discipline and is designated by the course number CYBR 393. Students are not to exceed a total of 10 credits of independent study during their tenure at Community Colleges of Spokane. Requirements and limitations concerning courses are available from the Dean of the Bachelor of Applied Science in Cyber Security program. Prerequisite: Cyber Security BAS degree students only. (SFCC)

CYBR 410 - Encryption (5 cr)
This course will introduce students to the basic theories of encryption. It will examine practical application of encryption technologies such as Public Key Infrastructure and cipher concepts. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 430 - Cyber Security Policies and Framework (5 cr)
This course will examine the creation and purpose of cyber security focused policies such as Incident Response, Disaster Recovery, Business Continuity. The course will also introduce students to frameworks such as COBIT and ITIL. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 440 - Security and Compliance (5 cr)
This course will examine current compliance and legal requirements for protecting information resources. Students will examine compliance standards, such as Payment Card Industry Data Security Standards. Students will also examine regulations, such as Sarbanes-Oxley. Certification criteria and processes will be compared. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 470 - Identity Management (5 cr)
This course will build on students existing knowledge of authentication, authorization and access control. This course will explore the principles of managing identities in the enterprise and examine common enterprise solutions. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 475 - Capstone Internship (5 cr)
The capstone Internship course offers students the opportunity to integrate their academic studies and apply their knowledge to real world scenarios. The applied approach to blend classroom exercises with actual support cases will finalize our students' learning experience. This course is designed to help our students make final connection between the concepts taught by instructors and how their skills will be used in their careers. Grading option: Pass/Fail. Prerequisite: Applied BAS degree students only. (SFCC)

DENTAL ASSISTING

DENT 109 - Chairside Related Theory Lab (1 cr)
This hands-on laboratory course teaches students to create, file, and store paper and computerized medical and dental records preserving HIPAA policies. Obtain vital signs and teaches oral hygiene instruction. Implementation of infection control standards is the primary focus such as, performing proper handwashing techniques, maintaining waterline protocol, disposing of biohazardous materials, while preparing solutions used in sterilization and disinfecting of dental units, equipment and instruments followed by proper sterilization and disinfection of equipment and instruments. Prerequisite: Concurrent enrollment in DENT 110, 111, 112, 114, 115, 116, 117, & 118 (SCC)

DENT 110 - Introduction to Dental Assisting Lab (2 cr)
This hands-on-laboratory course allows the student to perform laboratory assignments such as: Identification, use and maintenance of dental equipment, instruments, and handpieces. Students will master basic chairside skills such as seating and dismissing patients, four-handed dentistry skills such as instrument transfer, maintaining the oral cavity, and preparing topical and local anesthetic. Prerequisite: Concurrent enrollment in DENT 109, 111, 112, 114, 115, 116, 117, & 118. (SCC)

DENT 111 - Introduction to Dental Assisting (3 cr)
This lecture course will introduce students to the overall dental office environment, including basic chairside assisting techniques such as preparation of the patient for dental procedures, sequence of procedures, anesthetics, equipment, instruments and the role of the dental assistant. Communication skills and techniques are heavily focused on as they relate to the inner office professionalism as well as between the provider and the patient. Prerequisite: Concurrent enrollment in DENT 109, 110, 112, 114, 115, 116, 117, & 118. (SCC)

DENT 112 - Chairside Related Theory (3 cr)
This lecture course is an introduction to the role of the dental assistant as an integral member of the dental health team. Techniques and principles of preventive dentistry and microbiology as they relate to the aseptic techniques in the dental office are emphasized. Infection control, safety standards and hazardous waste management are addressed. Prerequisite: Concurrent enrollment in DENT 110, 111, 114, 115, 116, 117, 118, & 119 (SCC)

DENT 114 - Introduction to Dental Radiology (2 cr)
This lecture course is an introduction to the basic principles of radiography physics, protection and safety guideline. Techniques of modern intraoral dental radiographic exposures and how to correctly mount and identify a diagnostic acceptable radiograph using landmarks. Processing techniques including darkroom, automatic processor, and digital techniques. Prerequisite: Concurrent enrollment in DENT, 109, 110, 111, 112, 115, 116, 117, & 118 (SCC)

DENT 115 - Introduction to Dental Radiology Lab (1 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: While using aseptic technique and safety guidelines: identify, use and maintain dental radiology equipment and solutions. Instruction in use and maintenance of automatic processors. Prepare mannequin in proper position for intraoral radiographs. Practice mannequin film exposures, processing, mounting and evaluate radiographs in preparation for patient. Expose, process, mount and evaluate patient interproximal x-rays of diagnostic quality. Prerequisite: Concurrent enrollment in DENT 109, 110, 111, 112, 114, 116, 117, & 118. (SCC)

DENT 116 - Dental Restorative Techniques (2 cr)
This lecture course is an introduction to physical properties, manipulation and uses of dental material commonly used in restorative dental procedures such as amalgam and composite restorations including cements, bases, cavity liners, varnish, etch and bonding solutions. This course will enable the student to understand the rationale for selection of material for use while maintaining safety guidelines. Prerequisite: Concurrent enrollment in DENT 109, 110, 111, 112, 114, 115, 117, 118 (SCC)

DENT 117 - Dental Restorative Techniques Lab (1 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: Select, dispense and manipulate cements, bases, cavity liners, varnish, etch and bonding solutions obtaining a clinically useful product with minimum waste while maintaining aseptic technique. Prepare and handle final restoration materials such as amalgam and composite correctly following safety guidelines. Prerequisites: Concurrent enrollment in DENT 109, 110, 111, 112, 114, 115, 116, & 118. (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 120 - Intermediate Chairside Assisting Lab (1 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: Performing practice procedures and preparation of materials used in a variety of dental specialties such as a composite restoration procedure, endodontics, oral maxillofacial surgery, orthodontics, periodontics and pediatric dentistry. Build upon learned communication skills with patients by performing and teaching oral hygiene instruction, vital signs, intraoral/extraoral examinations and patient medical and dental charting. Prerequisites: Successful completion of first quarter and concurrent enrollment in DENT 121, 122, 124, 125, 126 & 127 (SCC)

DENT 121 - Intermediate Chairside Assisting (5 cr)
This lecture course continues with the concepts learned in DENT 111 lecture courses while emphasizing the procedures and instruments of dental specialties such as endodontics, oral and maxillofacial surgery, oral hygiene including patient records, vital signs, intraoral/extraoral examinations, and dental charting as well as step by step sequencing of a composite restoration procedure is discussed. Prerequisite: Concurrent enrollment in DENT 120, 122, 124, 125, 126, & 127 (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 the first quarter and concurrent enrollment in DENT 119, 120, 121, 122, 124, 125, 126, 127, & 129. (SCC)

DENT 124 - Advanced Dental Radiology (1 cr)
This lecture course is a continuation of DENT 114 with the introduction of advanced dental radiology techniques such as digital radiographs in both adult and pediatric full mouth series, specialty radiographs including vertical bitewings, endodontic films, occlusal films, and panoramic techniques. In-depth knowledge of anatomical landmarks and dental anatomy pertaining to dental radiology. Prerequisite: Successful completion of the first quarter and concurrent enrollment in DENT 120, 121, 122, 125, 126, & 127. (SCC)

DENT 125 - Advanced Dental Radiology Lab (1 cr)
This hands-on laboratory class allows the student to perform laboratory assignments such as: Advanced radiographic exposures to include exposing and mounting a variety of intraoral/extraoral techniques including digital full mouth series on adult and child mannequins, endodontic, occlusal, vertical bitewings and panoramic exposures as well full-mouth radiographic series on adult patients. All radiographs must be obtained to a diagnostic quality. Complete appropriate forms used for consent of treatment and release of records following HIPAA policies. Use dental software to send radiographs electronically to referring dental offices. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 120, 121, 122, 124, 126, & 127 (SCC)

DENT 126 - Dental Restorative Techniques (2 cr)
This lecture course offers instruction in the physical properties, manipulation and appropriate instrumentation of dental materials used in fixed and removable prosthetic procedures. Subjects include a variety of materials used in dentistry including waxes, reversible and irreversible hydrocolloid, final impression materials and gypsum. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 120, 121, 122, 124, 125, & 127. (SCC)

DENT 127 - Dental Restorative Techniques Lab (2 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: Perform and understand procedures related to fixed and removable prosthetics. Preparation, mixing, and using irreversible hydrocolloid to obtain an acceptable impression on typodonts and patients. Preparation, mixing and pour gypsum product into impressions to trim and polish a study model used for patient treatment plans. Obtain facebow records, digital impression/scan, bite registration, and final impression. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 120, 121, 122, 124, 125, 126, & 128. (SCC)

DENT 129 - Chairside Clinical Experience (2 cr)
This clinical course requires students to participate in a 2-3 week or 99 hours SUPERVISED and UNPAID clinical externship experience. This experience allows students to utilize the technical skills acquired throughout the program and apply them in a dental facility, working with dental auxiliaries, dentists and patients. Prerequisite: Successful completion of second quarter with 2.0 grade or better and satisfactory progress in DENT 120, 121, 122, 124, 125, 126, & 127. (SCC)

DENT 131 - Advanced Chairside Assisting (4 cr)
This lecture course continues with the concepts learned in DENT 111 & DENT 121 lecture courses while emphasizing the Washington State Department of Health Scope of Practice skills allowed. Topics of instruction include understanding the formation and classification of stains and deposits, sedation using nitrous oxide, preventative procedures such as coronal polish, fluoride treatments, and sealants and isolation techniques such as rubber dams, restorative procedures such as placement of cements, bases, and liners and postoperative procedures such as removing sutures. Prerequisite: Successful completion of the second quarter and concurrent enrollment in DENT 132, 136, 137, & 138. (SCC)

DENT 132 - Advanced Chairside Assisting Lab (2 cr)
This hands-on laboratory course allows students to perform the following assignments such as: On a mannequin and patient, students will perform isolation techniques using a dental dam, preventive procedures such as coronal polishes, fluoride treatments, and sealants. Identify, determine, and place matrices according to procedure in preparation for placement of cements, bases, and liners in a cavity prep. Place cements, bases and liners. Remove postoperative sutures. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131, 136, 137, & 138. (SCC)

DENT 136 - Dental Restorative Techniques (1 cr)
This lecture course offers instruction in the physical properties, manipulation and appropriate instrumentations of dental materials used in advanced fixed and removable prosthetic procedures. Subjects include a variety of materials used in dentistry including thermoplastics and acrylics for the fabrication of whitening trays and mouthguards, custom trays and provisional temporaries. Indication, materials and technique for tissue deflection in preparation for final impressions. Clean and polish removable prosthesis. Prerequisites: Successful completion of second quarter and concurrent enrollment in DENT 130, 131, 137, & 138. (SCC)

DENT 137 - Dental Restorative Techniques Lab (1 cr)
This hands-on laboratory class allows students to perform the following assignments such as: Select, prepare and use impression materials to obtain acceptable impressions on patients. Pour and trim impressions and fabricate whitening trays, mouth guards and custom trays. Fabricate a variety of matrices, use matrices to fabricate temporary crowns. Prepare, select and place retraction cord on a mannequin. Clean and polish removable appliances. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131, 132, 136, & 138 (SCC)

DENT 138 - Office Management (4 cr)
This lecture course offers instruction in nonclinical functions that dental auxiliaries are required to perform. Subjects included are interpersonal communication and professionalism within the office, office management, recall programs and insurance, appointment control, accounts receivable and payable, computer skills, practice management as well as ethics, jurisprudence and HIPAA. Emphasis is placed on employment skills such as cover letters, first impression, resumes, interviews and working interviews. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131, 132, 136, & 137. (SCC)

DENT 139 - Chairside Clinical Experience (8 cr)
This clinical course requires students to participate in a 5-6 week or 231 hours SUPERVISED and UNPAID clinical externship experience. This experience allows students to utilize the technical skills acquired throughout the program and apply them in a dental facility, working with dentists and patients. It is expected that the student will increase in skill and knowledge throughout the clinical externship. Prerequisite: Successful completion of second quarter with 2.0 grade or better and satisfactory progress in DENT 131, 132, 136, 137, & 138. (SCC)

DEVOPS ENGINEERING

DVOP 310 - DevOps Programming I (5 cr)
This course will teach core programming concepts using examples from strongly typed programming languages. Debugging techniques are utilized by students to solve beginning-level DevOps Engineering problems. The understanding and mastery of the terms, concepts, and theories used by DevOps Engineers are the main objectives of this course. Completion of the Cloud Computing or Computer Network Design & Administration AAS, admission into the DevOps Engineering BAS, and a 2.0 or better in either DVOP 372 for Cloud Computing students or DVOP 330 for Computer Network Design & Administration students. (SCC)

DVOP 311 - DevOps Programming II (5 cr)
Students learn object-oriented fundamentals using a modern programming language. Students are challenged to solve problems in an object-oriented fashion. Students learn scripting of DevOps deployment and management of web-based applications. Prerequisite: Completion of the Cloud Computing AAS or the Computer Network Design & Administration AAS, admission into the DevOps Engineering BAS, and a 2.0 or better in DVOP 310. (SCC)

DVOP 320 - Introduction to DevOps (5 cr)
This course provides an explanation and demonstration of Source Control, Continuous Integration, Continuous Delivery, Infrastructure Automation, Deployment Automation, Container Concepts, Orchestration & Cloud Computing. At the end of this course, students will understand and be able to explain the primary responsibilities of a DevOps Engineer. Prerequisite: Admission into the DevOps Engineering BAS program. (SCC)

DVOP 325 - Intro to Virtualization/Cloud (5 cr)
This course is designed to provide students with a working knowledge of VMware virtualization and AWS cloud technologies. Students will use VMware to learn the installation, configuration, and setup of virtual machines, how to design, plan, performance-tune, optimize, upgrade, troubleshoot and repair a virtual environment. Additionally students will learn fundamental AWS cloud concepts, pricing, services, security, and architecture. Prerequisite: Admission into the DevOps Engineering BAS. (SCC)

DVOP 330 - Cloud Architecting I (5 cr)
Cloud Architecting I covers the fundamentals of building IT infrastructure on AWS, teaching students how to optimize use of the AWS Cloud creating a flexible, scalable, reliable, and highly available infrastructure using the AWS Well-Architected Framework. This course introduces topics to prepare for the AWS Certified Solutions Architect - Associate certification. Prerequisite: Completion of either Software Development or Computer Network Design & Administration AAS degree, admission to the DevOps Engineering BAS, completion of DVOP 340 with a 2.0 or better for Software Development students or concurrent enrollment in DVOP 320 for Computer Network & Design students. (SCC)

DVOP 340 - Linux Server Administration I (5 cr)
This course introduces students to the LINUX/UNIX operating system providing essential skills needed for Linux systems administration and management including OS installation and configuration, working with the BASH shell, locating and managing files and directories, creating, mounting and managing file systems and server deployment. Prerequisite: Completion of Software Development AAS, admitted into DevOps Engineering BAS and completed DVOP 325 w/2.0 or better. (SCC)

DVOP 341 - Linux Server Administration II (5 cr)
This course expands student knowledge of the LINUX/UNIX operating system providing essential skills needed for Linux systems administration and management including managing processes, version control, administrating users and groups, system backups, application software installation and server application configuration. Prerequisite: Completed Software Development AAS, admitted into DevOps Engineering BAS and completed DVOP 340 w/2.0 or better. (SCC)

DVOP 370 - Cisco Infrastructure Automation (5 cr)
This course focuses on integration and automation of network infrastructure using a variety of programming and infrastructure automation technologies. Prerequisite: Completion of Computer Network Design & Administration AAS, admitted into DevOps Engineering BAS, and completion of DVOP 425 with a 2.0 or better. (SCC)

DVOP 371 - Cisco Networking Infrastructure I (5 cr)
Cisco Networking Infrastructure I introduces students to networking architectures, models, protocols, and networking elements that connect users, devices, applications, and data through the internet and across modern computer networks. Topics include network terminology, IP addressing, and Ethernet fundamentals. By the end of the course, students can build simple local area networks (LANs) that integrate IP addressing schemes, foundational network security, and perform basic configurations for routers and switches. Prerequisite: Completion of Software Development AAS, admitted into DevOps Engineering BAS, and completion of DVOP 340 w/ 2.0 or better. (SCC)

DVOP 372 - Cisco Network Infrastructure II (5 cr)
This course focuses on switching and routing technologies, introducing students to common network operations, configuration, and administration topics, including basic security fundamentals and layer two and small network configuration. Prerequisite: Completion of Cloud Computing AAS, admitted into DevOps Engineering BAS, and concurrent enrollment in DVOP 320. (SCC)

DVOP 373 - Cisco Network Infrastructure III (5 cr)
This course expands on infrastructure operations topics in switching and routing, including intermediate layer 2 security, WLAN, and routing concepts and configuration. Students are introduced to dynamic and static IPv4 and IPv6 routing and troubleshooting techniques. Prerequisite: Completion of the Cloud Computing AAS, Completion of DVOP 372 with a 2.0 or better, and admission into DevOps Engineering BAS. (SCC)

DVOP 374 - Cisco Network Infrastructure IV (5 cr)
This course introduces wide area network (WAN) infrastructure technologies and concepts, such as secure remote access, virtualization, automation, and software defined networking. Basic enterprise network design, management, and troubleshooting are also covered. Prerequisite: Completion of Cloud Computing AAS, admission into DevOps Engineering BAS, and completion of DVOP 373 w/2.0 or better. (SCC)

DVOP 400 - DevOps I (5 cr)
This course teaches the use of popular DevOps tools to implement Continuous Integration (CI) and Continuous Delivery (CD) pipelines for deploying a new version of an application and infrastructure automation used to streamline processes needed to reduce manual intervention. Prerequisite: Admitted to DevOps Engineering BAS. (SCC)

DVOP 401 - DevOps II (5 cr)
This course teaches the creation of containers and the automated deployment, scaling and management of container applications. Prerequisite: Admitted to DevOps Engineering BAS. (SCC)

DVOP 410 - DevOps Programming III (5 cr)
This course presents the standards of creating Mobile Applications through the use of either Android Operating System Development and the Kotlin Language. I. Begin using remote DevOps pipelines and technologies for application building, testing, and deployment. Prerequisite: Completion of the Cloud Computing or CNDA AAS, admission into the DevOps Engineering BAS, completion of DVOP 374 with a 2.0 or better for Cloud Computing students, or completion of CIS 430 or DVOP 370 with a 2.0 or better for CNDA students. (SCC)

DVOP 411 - DevOps Programming IV (5 cr)
This course presents advanced concepts of creating Mobile Websites through the use of either Android Operating System Development and the Java Language or iPhone/iPad through Swift. In addition, the building of mobile application aware websites through standard Application Programming Interfaces (API) will be presented. Using DevOps and cloud-based technologies for automated testing and deployment management. Prerequisite: Completion of Cloud Computing or Computer Network Design & Administration AAS, admission into DevOps Engineering BAS, and completion DVOP 410 w/2.0 or better. (SCC)

DVOP 425 - Cloud Architecting II (5 cr)
This course expands on the AWS Solutions Architect I topics to prepare for the AWS Certified Solutions Architect Associate Industry certification. The course addresses in-depth knowledge of the Amazon Web Services cloud platform and helps students understand and prepare for remote infrastructure operations. Prerequisite: Completion of Software Development or Computer Network Design & Administration AAS, admitted to the DevOps Engineering BAS, and completion of DVOP 371 with a 2.0 or better for Software Development students, or Completion of DVOP 330 for Computer Network Design and Administration students. (SCC)

DVOP 430 - Cloud SysOps Administrator (5 cr)
This course introduces topics to prepare for the SOA-COS certification exam through AWS (AWS Certified SysOps Administrator Associate Certification). It provides an overview of the following topics: - Monitoring, Logging and Remediation - Reliability and Business Continuity - Deployment, Provisioning and Automation - Security and Compliance - Networking and Content Delivery - Cost and Performance Optimization Prerequisite: Completion of Software Development or Computer Network Design & Administration AAS, admission into DevOps Engineering BAS, and completion of DVOP 425 with a 2.0 or better. (SCC)

DVOP 480 - AWS DevOps Engineering (5 cr)
This course teaches how to create deployment pipelines using the AWS Developer Tools suite and the deployment of infrastructure using CloudFormation, Elastic Beanstalk, and OpsWorks. By the end of this course, you will be prepared to take the AWS DevOps Engineer Professional exam. Prerequisite: Admitted into the DevOps BAS Engineering BAS and completed DVOP 400 with a 2.0 or better. (SCC)

DIAGNOSTIC MEDICAL SONOGRAPHY

SONO 111 - Introduction to DMS (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)

SONO 112 - Vascular for General Sonographer (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)

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 tomography (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 123 - Cardiac for General Sonographer (4 cr)
A survey of basic fetal and adult cardiac sonography with an emphasis on normal cardiac development, normal anatomy, congenital defects, and acquired heart disease states. Standard sonographic imaging techniques of fetal and adult cardiac structures, instrumentation and examination protocols will be reviewed. Laboratory experience is required. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 141. (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; Abdomen & Male Pelvis (4 cr)
This course is an investigation of the application for ultrasound in the abdomen. The Pathophysiology of the abdomen 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 132 - Abdominal Case Studies & Journal Review (4 cr)
Students study the process of disease development in the various organs of peritoneal and retroperitoneal cavities. Infectious, inflammatory, and neoplastic conditions of each organ/gland are explored. (SCC)

SONO 133 - Diagnostic Ultrasound; Female Pelvis & 1st tri OB (4 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. (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; 2nd and 3rd trimester (4 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 - Seminar in Sonography (4 cr)
Applications of ultrasound in the assessment of normal structures and pathology found within the areas of neck, thyroid, prostate, scrotum, breast and musculoskeletal structures. Emphasis is placed on the sonographic identification of anatomy and pathophysiology using sonographic techniques. Laboratory experience is provided and required. (SCC)

SONO 143 - Sonography Clinical I (9 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 144 - OB/GYN Case Studies and Journal Review (4 cr)
Students study the disease process in the female reproductive system, abnormal maternal conditional associated with pregnancy and abnormal fetal development. Infectious, inflammatory, and neoplastic conditions of female pelvis, maternal syndromes, and abnormal fetal development are explored. (SCC)

SONO 145 - Diagnostic Ultrasound; Small Parts (3 cr)
This course is an investigation of the application for ultrasound of small parts: Scrotum & Prostate, Thyroid & Parathyroid, Breast, and Musculoskeletal. The Pathophysiology of the small parts is discussed. Emphasis is on the technique and image assessment. Both normal and abnormal anatomy is identified. Laboratory experience is provided. (SCC)

SONO 253 - Sonography Clinical II (13 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. (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)

SONO 299 - Sonography Clinical Independent Study (1-13 cr)
This course is designed for students wishing to complete specialized studies in the field of diagnostic medical sonography. 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 abdominal, small parts, and OB/GYN sonography. (SCC)

DIESEL/HEAVY DUTY EQUIPMENT

HEQ 101 - Commercial Driver's License Theory (6 cr)
This course introduces students to the concepts required to properly operate combination vehicles. Emphasis is placed on the knowledge and procedures needed for safe operation by the professional driver. Prerequisite: Concurrent enrollment in HEQ 102. (SCC)

HEQ 102 - Commercial Driver's License Applications (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: Concurrent enrollment in HEQ 101. (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 (9 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 (7 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 (6 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 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)
This course in theatre appreciation includes study of selected plays representative of important historical periods, styles, and genres. It focuses on multidisciplinary and interdisciplinary practices in theatre including the development of theatre in various cultures throughout history. This course reviews many traditional and nontraditional elements and forms of drama as well as theatre skills. (SCC, SFCC)

DRMA 106 - Theatre Production (1-5 cr)
This course provides students with the opportunity to gain skills and knowledge through guided active practice in theatrical production work. The course will culminate in the presentation of a live theatre performance for a public audience. Course may be repeated up to a maximum of 8 credits. (SCC, SFCC)

DRMA 107 - Theatre Production (1-5 cr)
This course provides students with the opportunity to gain skills and knowledge through guided active practice in theatrical production work. The course will culminate in the presentation of a live theatre performance for a public audience. Course may be repeated up to a maximum of 8 credits. (SCC, SFCC)

DRMA 108 - Theatre Production (1-5 cr)
This course provides students with the opportunity to gain skills and knowledge through guided active practice in theatrical production work. The course will culminate in the presentation of a live theatre performance for a public audience. Course may be repeated up to a maximum of 8 credits. (SCC, SFCC)

DRMA 110 - Musical Theatre Voice (3 cr)
This course is an introduction to singing in musical theatre. Students will learn the basic techniques of posture, breathing, and mouth shape/space to improve their singing. Students are required to audition for the current musical theatre production and will use the show's score in the course. Prerequisite: Concurrent enrollment in DRMA 108. (SFCC)

DRMA 140 - Introduction to Theatrical Design and Technology (5-6 cr)
Introduction to Theatrical Design and Technology explores the creative collaborative process of theatrical design including the history and function of stage design work in scenery, costume, lighting, makeup, and sound. In addition to the research and conceptualization, students are introduced to theatre production spaces, shop safety procedures, construction materials, and stage equipment. (SFCC)

DRMA 150 - Acting for Film and Television (5 cr)
This course explores the use of various acting techniques specific to film and television. Students also gain exposure to and hands-on experience in the technical aspects of the behind-the-camera process. Course components include the art and technique of acting on camera, defining your "type" vs. your "brand," monologue and scene rehearsal/production, theatrical and commercial audition techniques and preparation, and the creation of an acting demo reel. In addition, the course will explore the business aspects of pursuing an on-camera acting career. (SFCC)

DRMA 160 - Theatre Experience (2 cr)
This course explores professional theatre and the business of theatrical production. Students will attend multiple live theatre performances, practice critical response techniques, develop interview skills, create resumes, and explore opportunities for advancement in their chosen specialty. Travel with the class is required. Prerequisite: Permission of instructor. (SFCC)

DRMA 240 - Scenic Design and Technology (5-6 cr)
This course builds specific skills in scenic construction, scenic painting techniques, and stage property creation with a strong foundation in both technical training and design principles. Students will find a broad interdisciplinary approach to a range of concepts, both introductory and advanced. Topics covered include drawing, construction, painting, theory, and application. While it is not a formal prerequisite, students are encouraged to complete DRMA 140 before enrolling in this course. (SFCC)

DRMA 245 - Lighting Design and Technology (5-6 cr)
This course explores theater and studio lighting, building specific skills in lighting design, and projection techniques, with a strong foundation in both technical training and design principles. Students will find a broad interdisciplinary approach to a range of concepts, both introductory and advanced. Topics covered include projection mapping, optics, design concepts, color in light, lighting instruments, and intensity controls. While it is not a formal prerequisite, students are encouraged to complete DRMA 140 before enrolling in this course. (SFCC)

DRMA 250 - Basics of Acting I (5 cr)
This course is an introduction to the creative process with an emphasis on developing the actor's basic tools: the voice, body, and imagination. Students are introduced to significant acting methods/techniques including those of Stanislavsky, Adler, Strasberg, Meisner, and Michael Chekhov. (SFCC)

DRMA 255 - Basics of Acting II (5 cr)
This course offers students the opportunity to further develop the basic acting tools of voice, body, and imagination through physical exercises, improvisations, and more advanced scene work. There is an increased emphasis on the utilization of acting methods/techniques including those of Stanislavsky, Adler, Strasberg, Meisner, and Michael Chekhov. Prerequisite: DRMA 250 with a 2.0 or better, or permission of instructor. (SFCC)

DRMA 260 - Theatre Experience (2 cr)
This course explores professional or community theatre and the business of theatrical production. Students will practice critical response techniques, develop interview skills, create resumes, and explore opportunities for advancement in their chosen specialty. Participation in approved internship or volunteer work in theatre is required. Prerequisite: Permission of instructor. (SFCC)

DRMA 280 - Writing for Stage and Screen (5 cr)
This course explores theater and film writing, building specific skills in structure, guidelines, and format of the monologue, short film script, and short play script. Students will explore multiple elements of scriptwriting beginning with the conception of an idea, followed by effective outlining techniques, subsequent drafts, and the final product in a polished monologue, short film script and short play. Students will also examine the business of scriptwriting for theatre, film, and television as they practice pitching ideas, writing query letters, and understanding contracts. (SFCC)

DRMA 290 - Directing for Stage and Screen (5 cr)
This course is an introduction to the process of directing that focuses on both theatre and narrative film. Students will be introduced to script analysis, creation of an artistic vision, principals of cinematography and stage composition, casting, effective management of a production process, and collaboration with other artists. (SFCC)

EARLY CHILDHOOD EDUCATION

ECED& 100 - Child Care Basics (3 cr)
This course is designed to meet licensing requirements for early learning lead teachers and family home child care providers, STARS 30 hour basics course recognized in the MERIT system. Topics: child growth/development, cultural responsiveness, community resources, guidance, health/safety/nutrition and professional practices. (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. It emphasizes self-assessment, goal-setting, effective study habits, campus resources and education planning. (SFCC)

ECED 104 - Early Achiever's Success Course (1 cr)
As an Early Achiever's (EA) Scholar, you have the opportunity to improve your skills as an early childhood educator. This course covers online learning, EA requirements and resources, and planning a successful path to completion. (SFCC)

ECED& 105 - Introduction to Early Childhood Education (5 cr)
Explore the foundations of early childhood education. Examine theories defining the field, issues, trends, best practices, and program models. Observe children, professionals, and programs in action. (SFCC)

ECED& 107 - Health, Safety, Nutrition (5 cr)
Introduction to implementation of equitable health, safety and nutrition standards for the growing child in group care. Focus on federal Child Care Block Grant funding (CCDF) requirements, WA state licensing and Head Start Performance standards. Develop skills necessary to keep children healthy & safe, report abuse & neglect, and connect families to community resources. (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 Profession. Content focuses on a variety of aspects of early childhood education. Seminars can be taken prior to ECED coursework or to meet one-time and/or ongoing training requirements. These seminars address WA State Core Competencies for Early Care and Education Professionals. (SFCC)

ECED& 120 - Practicum-Nurturing Relationships (2 cr)
In an early learning setting, engage in establishing nurturing, supportive relationships with all children and professional peers. Focus on children's health & safety, promoting growth & development, and creating a culturally responsive environment. (SFCC)

ECED& 132 - Infant/Toddler Care (3 cr)
Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care. (SFCC)

ECED 133 - Practicum: Infant/Toddler Care (2 cr)
In an infant or toddler childcare and education program, apply best practices for responsive, nurturing, respectful, and culturally-retentive care. 66 practicum hours required in an approved infant or toddler program. Prerequisite: ECED& 120. (SFCC)

ECED& 134 - Family Childcare Management (3 cr)
Learn how to manage a family childcare program. Topics include: licensing requirements, record-keeping, relationship building, communication strategies, guiding behavior, and promoting growth and development. (SFCC)

ECED& 137 - Outdoor Learning for Young Children (3 cr)
This course is an exploration of nature-based, outdoor learning experiences for all young children. Students will identify the benefits of outdoor learning for children, learn about the teacher's role in supporting learning in the outdoor learning environment, consider adult comfort levels with outdoor experiences, and examine risk-taking as a part of learning. (SFCC)

ECED& 138 - Home Visitor / Family Engagement (3 cr)
Plan and provide home visits and group activities. Promote secure parent-child relationships. Support families to provide high-quality early learning opportunities embedded in everyday routines and experiences. (SFCC)

ECED& 139 - Administration of ECE (3 cr)
Develop administrative skills required to develop, operate, manage and improve early childhood education and care programs. Acquire basic business management skills. Explore resources and supports for meeting Washington State licensing and professional NAEYC standards. (SFCC)

ECED& 160 - Curriculum Development (5 cr)
Investigate learning theory, program planning, tools and methods for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in children birth through age 8 utilizing developmentally appropriate and culturally responsive practice. (SFCC)

ECED& 170 - Learning Environments (3 cr)
This class focuses on the adult's role in designing, evaluating, and improving indoor and outdoor environments that ensure quality learning, nurturing experiences, and optimize the development of young children. (SFCC)

ECED& 180 - Language and Literacy (3 cr)
Teaching strategies for language acquisition and literacy skill development are examined at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading. (SFCC)

ECED& 190 - Observation and Assessment (3 cr)
Collect and record observation and assessment data in order to plan for and support the child, the family, the group, and the community. Practice reflection techniques, summarizing conclusions, and communicating findings. (SFCC)

ECED 191 - Practicum: Observation and Assessment (2 cr)
In an early care and education setting, apply best practices by observing and assessing young children. 66 practicum hours required in an approved program. Prerequisite: ECED& 120. (SFCC)

ECED 282 - Practicum I (5 cr)
Practicum in Early Childhood Education is an opportunity for Early Childhood Education (ECED) students to have a guided learning experience in a professional agency that provides services to children and families. It is expected that learning experiences and projects at the practicum site will provide students with the opportunity to use and implement theories and practices learned in other ECED classes during a total of 165 practicum hours in an approved setting. Prerequisite: ECED& 120 or ECED 102 (SFCC)

ECED 283 - Practicum II (5 cr)
This final practicum reinforces the skills learned throughout the program and provides an opportunity to integrate skills and competencies into an individual philosophy and methodology of Early Childhood care and education. This course extends the experiences of the earlier practicums, requiring participation in planning and implementing all classroom routines during a total of 165 practicum in an approved setting. Prerequisite: ECED& 120 or ECED 102 and ECED 282. (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 105 - Introductory Echocardiographic Technical Skills (1 cr)
Introduction to the basic principles, anatomical identification, measurement, and application of echocardiography. The anatomy, image assessment, and hemodynamics of cardiac ultrasound are emphasized. (SCC)

ECHO 112 - Vascular Fundamentals (3 cr)
This course is an introduction to basic vascular anatomy of the upper and lower extremities, abdomen, visceral organs, and cerebral vasculature with emphasis on the physiology and pathophysiology of these systems. Concurrent enrollment in ECHO 115. (SCC)

ECHO 115 - Vascular Fundamentals Technical Skills (2 cr)
This course is an introduction to the concepts essential for the performance and interpretation of vascular exams of the upper and lower extremities, abdomen, visceral organs, and cerebral vasculature. Basic imaging techniques and hemodynamic analysis is included in this laboratory course. (SCC)

ECHO 118 - Cardiovascular Physiology I (2 cr)
This course is an introductory study of normal cardiovascular physiology principles. Emphasis is placed on cardiac anatomy and structure, electrical system, the heart as a pump, cardiac output, and basic hemodynamics. (SCC)

ECHO 121 - Technical Skills/Vascular Procedures I (2 cr)
This course is a continuation of the concepts essential for the performance and interpretation of vascular exams of the upper and lower extremities, abdomen, visceral organs, and cerebral vasculature. Basic imaging techniques and hemodynamic analysis, as well as instrumentation commonly used in the vascular laboratory, are included in this laboratory course. (SCC)

ECHO 122 - Vascular Procedures I (3 cr)
This course discusses the basic vascular procedures used to assess the upper and lower extremities, abdominal vasculature, visceral organs, and cerebral vasculature with emphasis on the ultrasonic examinations of these systems. Concurrent enrollment in ECHO 121. (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 130 - Echo Fundamentals Lab (2 cr)
This course is a continuation to the concepts essential for the performance and interpretation of echocardiographic exams. Emphasis is placed on anatomy, image assessment, hemodynamics, and clinical applications of cardiac ultrasound in this laboratory course. Concurrent enrollment in ECHO 133. (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 136,138, 253. (SCC)

ECHO 133 - Echo Fundamentals (4 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 122, 135. (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, 133. (SCC)

ECHO 136 - Comparative Imaging Analysis (3 cr)
The student will be exposed to normal anatomy and pathology cases that combine diagnostic medical sonography, computed tomography, magnetic resonance imaging and angiography. The student will gain an understanding of how diagnoses are made and patients are managed on the basis of findings from multiple imaging modalities. Prerequisite: Admission to the program and concurrent enrollment in ECHO 131, 253, 254. (SCC)

ECHO 138 - Cardiovascular Physiology II (3 cr)
This course is a continuation of the study of normal cardiovascular physiology principles. Emphasis is placed on advanced hemodynamics, peripheral circulation control, the microcirculation and lymphatics, coronary blood flow, special circulations, and pathophysiology of cardiovascular disease states. (SCC)

ECHO 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 ECHO program or permission of instructor. (SCC)

ECHO 140 - Technical Skills/Surgical Asepsis (1 cr)
This class supports ECHO 139. 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 ECHO program or permission of instructor. (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 213 - Electrocardiography (3 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 noninvasive cardiovascular technology program or permission of instructor. (SCC)

ECHO 214 - Electrocardiography Lab (1 cr)
Introduction to the field of cardiovascular technology, basic cardiac anatomy, physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences will support these concepts and provide simulated clinical situations and effective performance on the modality. Prerequisite: Admission to program. (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 252 - Cardiovascular Pathophysiology (1 cr)
This course describes the pathophysiology of pulmonary diseases, their diagnosis and treatment. Prerequisite: Completion of previous quarter. (SCC)

ECHO 253 - Echocardiography I (6 cr)
Students utilize the fundamentals presented in the first year of noninvasive cardiovascular technology to evaluate acquired cardiovascular testing with emphasis on the performance and interpretation of M-mode, two-dimensional and Doppler echocardiography. Related physician lectures, clinical and laboratory experiences are presented. Prerequisite: Admission to program and concurrent enrollment in ECHO 136, 138, 254. (SCC)

ECHO 254 - Technical Skills Echocardiography I (4 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. Concurrent enrollment ECHO 253. (SCC)

ECHO 255 - Research Methods and Biostatistics (3 cr)
This course will discuss the basic principles of epidemiology and descriptive biostatistics as they apply to echocardiography and vascular technology. Topics include basic statistics, disease occurrence and recurrence, patterns and trends in a population, and interpretation of results. Prerequisite: Admission to program and concurrent enrollment in ECHO 263, 264. (SCC)

ECHO 261 - Echocardiography Clinical III (14 cr)
Students utilize the skills learned 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. (SCC)

ECHO 263 - Echocardiography II (6 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 (2 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 265 - Echocardiography Seminar I (2 cr)
Echocardiographic case studies and presentation. Student will learn to obtain patient history, research disease processes, correlate with echo images and predict patient prognosis through presentation to other students also in clinical rotation. Preps students for research and presentation in the Echo labs they serve. (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, two-dimensional and Doppler Echocardiogram are emphasized. Written reports, review of current literature and attendance at conferences are required. Prerequisite: Admission to program. (SCC)

ECHO 275 - Echocardiography Seminar II (2 cr)
Echocardiographic case studies and presentation. Student will continue to obtain patient history, research disease processes, correlate with echo images and predict patient prognosis through presentation to other students also in clinical rotation. Preps students for research and presentation in the Echo labs they serve. (SCC)

ECHO 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 ECHO, or permission of instructor. (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. SFCC prerequisite: ECON& 202 or consent of instructor. (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 PARAEDUCATOR

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. (SFCC)

EDUC& 101 - Paraeducator Basics (3 cr)
This course is designed to introduce students to career options as a paraeducator in a school or institutional setting. Students will be introduced to Washington State Paraeducator standards, career options/opportunities, and employment requirements. Opportunities to become a certified teacher at a later date will be explained. This is a required course offered online for those interested in becoming a paraeducator. Individuals who are already employed as a paraeducator may substitute another class with instructor permission. (SFCC)

EDUC& 115 - Child Development (5 cr)
Build foundation for explaining how children develop in all domains, conception through early adolescence. Explore various developmental theories, methods for documenting growth, and impact of brain development. Topics addressed: stress, trauma, culture, race, gender identity, socioeconomic status, family status, language, and health issues. (SFCC)

EDUC& 130 - Guiding Behavior (3 cr)
Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences. (SFCC)

EDUC& 136 - School-Age Care (3 cr)
Develop skills to provide developmentally appropriate and culturally relevant activities/care for children ages 5-12 in a variety of settings. Topics include: implementation of curriculum, preparation of environments, building relationships, guiding cognitive and social emotional development, and community outreach. (SFCC)

EDUC& 150 - Child, Family, Community (3 cr)
Integrate the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication. (SFCC)

EDUC& 202 - Introduction 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 260 - Educational Psychology (5 cr)
This course begins with an orientation to the value of psychology in the process of teaching and learning. It explores the impact of methodologies and classical theories. Early social and emotional development is explored, as are topics of self-achievement, morals, gender issues, aggression and antisocial conduct. It considers research in developing effective teaching and learning behaviors and addresses diversity among learners. Reflection on the impact of family, as well as extra-familial and cultural influences in our schools are addressed. Theory and research are applied to classroom scenarios. (SFCC)

EDUC 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

EDUC 270 - Introduction to Developmental Disabilities (5 cr)
This course addresses etiology of intellectual disability, unresolved social questions, and problems related to the identification, education and professional/technical training of persons with developmental disabilities. (SFCC)

EDUC 275 - Learning Disabilities (5 cr)
Basic challenges encountered by children leading to a 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. (SFCC)

EDUC 280 - Behavior and 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 develop prevention and interventions for specific situations, and to discuss the ethical issues with regard to behavioral support and management. (SFCC)

EDUC 281 - Paraeducator 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 165 hours under close supervision. Prerequisite: Permission of instructor. (SFCC)

EDUC 282 - Paraeducator Practicum II (2 cr)
This course is delivered online with a 66 hour field experience. It is a culminating class for the Paraeducator AAS degree. This course will ask students to reflect on their field experiences, determine their own educational philosophy based on what they have observed in classrooms related to best practices and effective student support. Students will also be asked to articulate experiences that have prepared them to meet the Washington State Paraeducator Skill Standards. Prerequisite: EDUC 281, Paraeducator Practicum I. (SFCC)

ELECTRICAL MAINTENANCE AND AUTOMATION

ELMT 102 - Electrical Basics (8 cr)
Students are introduced to the concepts of basic electrical theory, circuitry, meters, and introduction to electrical safety. (SCC)

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 96 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 single-phase 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 96 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 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)

ELECTRONICS ENGINEERING TECHNICIAN

ELECT 111 - Circuit Theory 1 (5 cr)
Students are introduced to Basic DC Circuit theory, circuit analysis, resistors, conductors, insulators, Ohm's Law, and Kirchhoff's Laws. Concurrent enrollment in ELECT 112 or department chair approval. (SCC)

ELECT 112 - Circuit Theory I Lab (4 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot, basic DC circuits using DC meters and power sources. Students create technical documents in Microsoft Word and Excel, and simulate circuits in MultiSim. Basic solder techniques are introduced. Prerequisite: Concurrent enrollment in ELECT 111 or department chair approval. (SCC)

ELECT 113 - Electronics Math I (5 cr)
In this class students review math concepts such as fractions, decimals, percent, and powers of 10, as they apply to DC Circuits. Students also learn to calculate DC circuit parameters using algebraic equations. (SCC)

ELECT 115 - Basic Electronics 1 (6 cr)
Students are introduced to Basic DC Circuit theory, circuit analysis, resistors, conductors, insulators, Ohm's Law, and Kirchhoff's Laws. (SCC)

ELECT 116 - Basic Electronics 1 Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot basic DC circuits using DC meters and power sources. Students create technical documents in Microsoft Word and Excel and simulate circuits in Multisim. Basic solder techniques are introduced. Prerequisite: concurrent enrollment in ELECT 115 or department chair approval. (SCC)

ELECT 117 - Electronics Math 1 (4 cr)
In this class students review math concepts such as fractions, decimals, percent, and powers of 10, as they apply to DC Circuits. Students will also solve algebraic equations and simultaneous linear equations. (SCC)

ELECT 121 - Circuit Theory II (5 cr)
Students are introduced to basic AC circuit theory, circuit analysis, capacitors, inductors, and filters. Prerequisites: ELECT 111, 112, 113, or department chair approval and concurrent enrollment in ELECT 122. (SCC)

ELECT 122 - Circuit Theory II Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot, basic AC circuits using oscilloscopes, AC meters, and signal generators. Prerequisites: ELECT 111, 112, 113, or department chair approval and concurrent enrollment in 121. (SCC)

ELECT 123 - Electronics Math II (5 cr)
In this class students learn to apply Pythagorean Theorem, trigonometric functions, logarithmic equations, and equations with complex numbers to AC Circuits analysis. Binary, Octal, and Hexadecimal number systems are introduced. Prerequisite: ELECT 113 or department chair approval. (SCC)

ELECT 125 - Basic Electronics 2 (7 cr)
Students continue with DC theory and are introduced to basic AC circuit theory, circuit analysis, and capacitors. Prerequisite: ELECT 115, 116, 117 or department chair approval. (SCC)

ELECT 126 - Basic Electronics 2 Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot basic DC and AC circuits using oscilloscopes, AC meters, and signal generators. Prerequisite: ELECT 115, 116, 117 or department chair approval and concurrent enrollment in ELECT 125 or department chair approval. (SCC)

ELECT 127 - Electronics Math 2 (3 cr)
In this class students will expand on their knowledge of DC circuit parameter calculations and learn to apply quadratic equations, Pythagorean Theorem, and trigonometric functions. Prerequisite: ELECT 115, 116, 117 or department chair approval. (SCC)

ELECT 131 - Solid State Devices (5 cr)
Students are introduced to the operation and characteristics of semiconductor devices including diodes, transistors, and FETs. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 132. (SCC)

ELECT 132 - Solid State Devices Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot semiconductor based circuits using oscilloscopes, meters, power supplies, and signal generators. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 131 (SCC)

ELECT 133 - Computer Systems (4 cr)
Students are introduced to basic computer systems including the motherboard, Bus architecture, BIOS, storage devices, audio/video devices, as well as computer operating systems, installation, and hardware setup. Concurrent enrollment in ELECT 134. (SCC)

ELECT 134 - Computer Systems Lab (2 cr)
The course gives the student a hands-on approach to basic computer systems including the motherboard, Bus architecture, BIOS, storage devices, audio/video devices, as well as computer operating systems, installation, and hardware setup. Concurrent enrollment in ELECT 133. (SCC)

ELECT 211 - Digital Concepts (5 cr)
Students are introduced to digital devices such as logic gates, counters, and flip-flops. Students learn how to implement logical expressions in digital circuitry. Prerequisites: ELECT 121, 122, 123, or department chair approval and concurrent enrollment in ELECT 212. (SCC)

ELECT 212 - Digital Concepts Lab (3 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 211 using digital trainers and logic probes. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 211. (SCC)

ELECT 215 - Linear Devices (4 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. Prerequisites: ELECT 131, 132, 211, 212 or department chair approval and concurrent enrollment in ELECT 216. (SCC)

ELECT 216 - Linear Devices Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot linear circuits, filter circuits, and other circuits discussed in ELECT 215 using oscilloscopes, meters, power supplies, and signal generators. Prerequisite: ELECT 131, 132, 211, 212 or department chair approval and concurrent enrollment in ELECT 215 (SCC)

ELECT 221 - RF Communications (4 cr)
Students are introduced to RF communication fundamentals, AM and FM modulations, transmitters, receivers, and antennas. Prerequisite: ELECT 131, 132, 211, 212 or department chair approval and concurrent enrollment in ELECT 222. (SCC)

ELECT 222 - RF Communications Lab (3 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 221 using spectrum analyzers and RF equipment. Advanced soldering techniques will be introduced. Prerequisite: ELECT 131, 132, 211, 212 or department chair approval and concurrent enrollment in ELECT 221. (SCC)

ELECT 225 - Internet of Things (4 cr)
Students are introduced to the Internet of Things including technologies, architectures, connectivity, protocols, security, and regulations. Concurrent enrollment in ELECT 226 (SCC)

ELECT 226 - Internet of Things Lab (4 cr)
In this hands-on lab students will learn to apply networking hardware fundamentals, demonstrate networking protocol fundamentals, and apply communication network advanced troubleshooting techniques and procedures. Globalization of electronics is imbedded to meet Humanities requirement. Concurrent enrollment in ELECT 225. (SCC)

ELECT 233 - Microcontrollers & Embedded Systems (4 cr)
Students are introduced to microprocessors, digital signal processing, bandwidth characteristics, and signal transmission techniques. Prerequisite: Concurrent enrollment in ELECT 234 required. (SCC)

ELECT 234 - Microcontrollers & Embedded Systems Lab (3 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 233 such as programming small robots and minicomputers. Prerequisite: Concurrent enrollment in ELECT 233 required. (SCC)

ELECT 235 - Photonics I (4 cr)
This course is designed to teach students the fundamental principles of optics, electro-optics, and lasers. Prerequisite: Concurrent enrollment in ELECT 236 required (SCC)

ELECT 236 - Photonics I Lab (3 cr)
This hands-on lab is designed to aid students in the understanding of the fundamental principles of optics, electro-optics, and lasers. Prerequisite: Concurrent enrollment in ELECT 235 required. (SCC)

ELECT 237 - Emerging Technologies (4 cr)
This lecture class, students will explore career opportunities with the focus on emerging and in-demand fields such as renewable energy and semiconductors. Students will earn a SEMI Foundation certificate and explore the stages of the semiconductor manufacturing process. Students will gain basic knowledge of applications of generative AI. Students must be concurrently enrolled in ELECT 138. (SCC)

ELECT 238 - Emerging Technologies Lab (2 cr)
In this hands-on lab series, students will explore emerging and in-demand technology in the electronics industry such as generative AI, renewable energy, and semiconductors. Students will describe how clean room systems function, use solar panels, use sensors to collect and analyze data using AI based tools, and demonstrate familiarity with operating new technologies. Students must be concurrently enrolled in ELECT 237. (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 271 - Electronics Applications Seminar (5 cr)
This series of lectures focuses on electronics applications and industries. Emphasis will be placed on student interests and future employment opportunities. Students may also work on their resumes. Prerequisite: ELECT 215, 216, 221, 222 or department chair approval and concurrent enrollment in ELECT 272 (SCC)

ELECT 272 - Electronics Applications Capstone Project (8 cr)
In this hands-on, project based capstone, students identify an area of special interest (for example, robotics, photonics, Internet of Things), research, and build a project. The final projects will be presented to the class. Projects could incorporate devices like Raspberry Pi or Arduino. Students could learn to make their own Printed Circuit Board. Prerequisite: ELECT 212, 216, 221, 222 or department chair approval and concurrent enrollment in ELECT 271. (SCC)

EMERGENCY MEDICAL SERVICES

EMS 120 - Basic First Aid in the Workplace (2 cr)
This is a basic first aid course encompassing the following: bleeding control and bandaging; practical methods of artificial respiration including mouth-to-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. (SCC)

EMS 122 - Basic Wilderness Survival (4 cr)
This course was designed to meet the basic needs of wilderness survival. This course covers the importance of preparation prior to leaving on a wilderness trip. Understanding how the body responds in different environments, with an emphasis on clothing and gear selection. Students will learn how to build and maintain a fire, build a shelter and learn signaling techniques in survival situations. Students will also learn the importance of water and food in survival situations. (SCC)

EMS 128 - Emergency Medical Technician Lecture (10 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)

EMS 129 - Emergency Medical Technician (3 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)

EMS 131 - Introduction to EMT Basics (5 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. Courses meet the NHTSA, Washington State and National Registry for EMT requirements for certification as an entry level EMT. Prerequisites: Students must be 18 years of age, have a high school diploma or GED certificate, AHA BLS Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. Must be currently enrolled in the Fire Science program. EMS 131 and 132 must be taken concurrently. (SCC)

EMS 132 - Basic Skills for EMT I (1 cr)
This course is for students actively involved in providing pre-hospital care and are 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. Courses meet the NHTSA, Washington State and National Registry for EMT requirements for certification as an entry level EMT. Prerequisites: Students must be 18 years of age, have a high school diploma or GED certificate, AHA BLS Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. Must be currently enrolled in the Fire Science program. EMS 131 and 132 must be taken concurrently. (SCC)

EMS 133 - Continuation of EMT Basics (5 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. Courses meet the NHTSA, Washington State and National Registry for EMT requirements for certification as an entry level EMT. Prerequisites: Students must be 18 years of age, have a high school diploma or GED certificate, AHA BLS Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. ***Successful completion of both EMS 131 and 133 lecture courses, along with successful completion of both EMS 132 and 134 lab courses, plus successful completion of EMS 135 (clinical practical) will qualify the student to sit for the NREMT national registry exam. Must have successfully completed EMS 131 and 132 and be concurrently enrolled in EMS 133, 134, and 135 (SCC)

EMS 134 - Basic Skills for EMT II (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. Courses meet the NHTSA, Washington State and National Registry for EMT requirements for certification as an entry-level EMT. Prerequisites: Students must be 18 years of age, have a high school diploma or GED certificate, AHA BLS Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. ***Successful completion of both EMS 131 and 133 lecture courses, along with successful completion of both EMS 132 and 134 lab courses, plus successful completion of EMS 135 (clinical practical) will qualify the student to sit for the NREMT national registry exam. Must have successfully completed EMS 131 and 132 and be concurrently enrolled in EMS 133, 134, and 135 (SCC)

EMS 135 - EMT Practicum (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. Courses meet the NHTSA, Washington State and National Registry for EMT requirements for certification as an entry level EMT. prerequisites: Students must be 18 years of age, have a high school diploma or GED certificate, AHA BLS Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. ***Successful completion of both EMS 131 and 133 lecture courses, along with successful completion of both EMS 132 and 134 lab courses, plus successful completion of EMS 135 (clinical practical) will qualify the student to sit for the NREMT national registry exam. Must have successfully completed EMS 131 and 132 and be concurrently enrolled in EMS 133, 134, and 135 (SCC)

ENGINEERING

ENGR 103 - Engineering Graphics/CAD (5 cr)
This is a basic graphics course for engineers using manual and computer-aided (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 90 with a grade of 2.0 or better. (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 90 at SFCC or MATH 71 at SCC with a grade of 2.0 or better. (SFCC, SCC)

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, SCC)

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 and concurrent enrollment in MATH& 141. (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: Concurrent enrollment in MATH& 151. (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 with 2.0 or higher. (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 with 2.0 or higher. (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 (SFCC)

ENGR 211 - Electrical Circuits Applications (1 cr)
In this course, students will explore experimental applications of electrical circuits. Students will design, analyze and test electrical circuits to perform instrumentation, amplification, and control applications. ENGR 211 is intended for students planning to transfer to a semester-based electrical engineering program or for students who would like to gain more experience with electrical circuits. Prerequisite: ENGR 210 or concurrent enrollment in ENGR 210. (SFCC)

ENGR 240 - Applied Numerical Methods for Engineers (5 cr)
Introduction to Matlab for numerical solutions to engineering problems. Prerequisite: MATH& 141 with grade of 2.0 or better, or concurrent enrollment in MATH& 141. (SFCC)

ENGINEERING DESIGN TECHNOLOGY

EDT 101 - Introduction to Technology (3 cr)
This course provides fundamental skills for professional success in an engineering office. It focuses on essential computer applications (especially Microsoft Excel), data management, record keeping, correspondence, project coordination, and decorum, as well as providing an overview of the drafting, design, and engineering technician professions. (SCC)

EDT 111 - Applied Technical Math I (3 cr)
This course introduces theory and practical application of math concepts emphasizing arithmetic, measurement, and the fundamentals of algebra. (SCC)

EDT 114 - Engineering Graphics/CAD I (5 cr)
This course introduces students to fundamental drafting and CAD practices with emphasis on industry drawing standards using sketching and 2D CAD. (SCC)

EDT 120 - Print Reading (3 cr)
This course introduces students to print reading from a variety of industries with emphasis on the ASME Y14 standards. (SCC)

EDT 121 - Applied Technical Math II (3 cr)
This course is an introduction to practical applications in geometry and trigonometry as well as a review of algebra. Prerequisite: EDT 111 Applied Technical Math I. (SCC)

EDT 124 - Engineering Graphics/CAD II (5 cr)
This course is an extension of EDT 114 with an emphasis on CAD drawing methods used in engineering. Dimensioning techniques, auxiliary views, and sectioning methods, and drawing revision processes are also emphasized. Prerequisite: EDT 114 Engineering Graphics/CAD I. (SCC)

EDT 133 - Introduction to Design (5 cr)
This course is an introduction to the engineering design process. Students develop problem solving and research skills to develop solutions to design challenges. Sketching, 3D modeling, and rapid prototyping are utilized to communicate design intent. Prerequisite EDT 114 Engineering Graphics/ CAD I (SCC)

EDT 137 - Applied Technical Math and Physics (3 cr)
This course builds on math covered previously by introducing applied Physics concepts such as vectors, kinematics, motion in two-dimensions, force, work, and energy. Basic statistics concepts used in manufacturing are introduced as well. Prerequisite: EDT 121 Applied Technical Math II (SCC)

EDT 141 - Shop Practices (2 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 tools used in a typical shop. Joining techniques such as welding, brazing, soldering and mechanical fasteners are included. (SCC)

EDT 142 - CAD Solid Modeling/Graphics I (5 cr)
This course introduces students to the basic tools and best practices of feature-based parametric solid modeling and design. The production of engineering drawings from clear and resilient part and assembly models is emphasized. Prerequisite: EDT 114 Engineering Graphics/CAD I. (SCC)

EDT 242 - Mechanical Design Fundamentals (5 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. Prerequisites: EDT 121,137, and 142. (SCC)

EDT 243 - Building System CAD Applications (3 cr)
This course introduces advanced concepts in CAD and applies these skills to the manufacturing of building systems. Students learn to interpret construction documents, use CAD to create drafting projects, and demonstrate the ability to present their projects in a professional format. Prerequisites: EDT 124 and 242. (SCC)

EDT 244 - Structural CAD Applications (3 cr)
This course introduces advanced concepts in CAD and applies these skills to structural systems, with an emphasis on structural steel construction. Students perform design calculations and use CAD to create drafting projects, then demonstrate the ability to present their projects in a professional format. Prerequisites: EDT 124 and 142. (SCC)

EDT 246 - Manufacturing Processes (2 cr)
This course is an exploration of various manufacturing processes. Students will gain a comprehensive understanding of different processes, their applications, and the factors influencing process selection. The course will also cover material selection and the environmental and economic impacts of different manufacturing processes. (SCC)

EDT 248 - Applied Engineering Mechanics (4 cr)
This course focuses on the application of mechanical principles to real-world engineering problems. It involves the study of forces, energy, motion, and materials to analyze the behavior of physical systems under various conditions. The course integrates concepts from statics, dynamics, materials science, and structural analysis to solve engineering challenges at a technician level. Prerequisites: EDT 124, 137, and 142. (SCC)

EDT 251 - Applied Tolerances and GD&T (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. Prerequisites: EDT 120, 121, 124 and 142. (SCC)

EDT 252 - CAD Solid Modeling/Graphics II (4 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 CAD Solid Modeling/ Graphics I. (SCC)

EDT 255 - Technical Applications I (4 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: CAD 121, 124, 137, 141, and 142. (SCC)

EDT 256 - Mechanical CAD Applications (3 cr)
This course introduces advanced concepts and applies CAD skills in mechanical engineering drafting and design projects. Students use a variety of skills including hand sketching, 3D solid modeling, and 2D drafting to complete mechanical drawing projects. Prerequisites: EDT 121, 137, and 142. (SCC)

EDT 260 - Fabrication and Piping CAD Applications (3 cr)
This course introduces advanced concepts in CAD and applies these skills to welding, sheet metal, and piping system drafting projects. Students study welding processes, symbols, and weldment design; sheet metal fabrication techniques, bend calculations, and falt pattern development; and pipe fittings, symbols, specifications, and their applications to various piping systems. Then use CAD to create drafting projects and demonstrate the ability to present their work in a professional format. Prerequisites: EDT 124 and 142. (SCC)

EDT 264 - Technical Applications II (4 cr)
The course continues with the applications offered in EDT 255 with emphasis on special projects related to manufacturing practices and shop personnel interactions. Prerequisites: EDT 121, 124, 137, 141 and 142. (SCC)

EDT 265 - Applied Precision Measurement (2 cr)
This course emphasizes the terminology and use of measuring instruments for fabrication and machining, for layout work, and to determine compliance with dimensions and tolerances on engineering drawings. It covers the fundamental skills required to perform basic and precision dimensional measurements and an introduction to the concepts of quality management including Statistical Process Control. Students will gain proficiency in using precision measuring tools and coordinate measuring machines. Prerequisite: EDT 251 Applied Tolerances and GD&T. (SCC)

EDT 268 - Schematics/Advanced CAD (3 cr)
This course introduces basic theory and schematic drafting techniques for electronics, industrial electricity, process piping, and fluid power systems. Students use CAD to create drafting projects then demonstrate the ability to present their projects in a professional format. The course includes advanced functions of CAD applications. Prerequisite: EDT 124 & 142. (SCC)

ENGLISH

ENGL 96 - Reading Improvement (3-5 cr)
This course focuses on helping students improve their reading. Students will practice various reading comprehension strategies, including vocabulary improvement, pre-reading, active reading, and organizing information. Prerequisite: SCC-Self-Placement. (SCC)

ENGL 98 - 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. (SFCC)

ENGL 99 - 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: SCC-Self-Placement. SFCC-2.0 grade in ENGL 97, current enrollment in or successful completion of ENGL 98, appropriate placement score, or permission of instructor. (SFCC)

ENGL& 101 - English Composition I (5 cr)
This course develops and sharpens the basic principles of writing college-level 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: For SCC-Either completion of ENGL 99 with a P or a 2.0 or higher, or appropriate placement. For SFCC-Either completion of ENGL 99 with a P or a 2.0 or higher, or appropriate placement score(s). (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 higher. (SCC, SFCC)

ENGL& 111 - Intro to Literature (5 cr)
Students read and discuss short stories, plays, and poetry with an emphasis on understanding and appreciating the richness and diversity of literature. (SCC, SFCC)

ENGL& 112 - Intro to Fiction (5 cr)
Students explore the verbal and thematic breadth of classic and contemporary fiction. Emphasis is on perceiving the techniques writers use to create an aesthetic experience for readers. (SCC, SFCC)

ENGL& 113 - Intro to Poetry (5 cr)
Students explore the themes, the craft, and the history of poetry, reading and interpreting a diverse selection of poems, with a focus on contemporary writers. Emphasis is on understanding the ways in which poets manipulate language to create meaning. (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 advisor or permission of instructor. (SFCC)

ENGL 151 - Reading & Writing for College Success (5 cr)
Introduction to the current interdisciplinary theoretical frameworks of learning, allowing students to develop the habits and academic strategies of independent learning and critical thinking necessary for college success. Students will apply these skills directly to their other college-level coursework. (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 209 - British Literature since 1800 (5 cr)
This survey explores the progression of British literature from 1800 to the present, including the Romantic movement, the Victorian era, Modernism, and Post-Colonialism. Discussion topics include the relationship between writing and nature, the potential of literature to address injustice and other social issues, and the literary responses to war and other sources of cultural upheaval. (SCC)

ENGL& 220 - Intro to Shakespeare (5 cr)
This course explores Shakespeare's plays and sonnets in light of the historical and social milieu of Elizabethan England. Students develop strategies for understanding Shakespeare's language and analyzing his writings as literary expressions and cultural documents. (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 is an introduction to creative writing, with an emphasis on both reading and writing. We'll do a close study of works of contemporary poetry and fiction to determine how a given work is put together and how writers achieve desired effects. We'll write a series of poetry exercises and a series of fiction ones, and we'll devote several classes to sharing each other's work in progress, both informally and in workshops. 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: Minimum 2.0 in ENGL& 102. (SCC, SFCC)

ENGL 247 - American Multicultural Literature (5 cr)
This course surveys the cultural diversity of American literature, with an emphasis on writings from the 1950s to the present. Readings may be drawn from contemporary African American, Asian American, Latina/o, Native American, Jewish, LGBTQ, and/or other traditions. (SCC, SFCC)

ENGL 248 - American Literature to 1865 (5 cr)
This course surveys the writers and issues that formed American literature from the earliest known oral traditions through the Civil War. Discussion topics include the literary responses to historical events such as early contact between Europeans and American native groups, the establishment of the United States as a nation, and slavery; as well as stylistic and thematic innovations by American writers. (SCC, SFCC)

ENGL 249 - American Literature since 1865 (5 cr)
This survey course focuses on selected works of American writers from the Civil War to the present. Discussion topics include the development of cultural and ethnic literary traditions in an era of immigration and social change, as well as literary experimentation and challenges to earlier traditions. (SCC, SFCC)

ENGL 254 - Editing, Layout, & Design (5 cr)
Discussion and criticism of writing theory and practice; layout and design; and professional editing. (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. Discussion topics include the use of writing to advance human rights, the relationship between identity and language use, and the connections between literature and other art forms. (SFCC)

ENGL 261 - Studies in the Novel (5 cr)
This course explores the variety and cultural impact of the novel as a literary form. Students pursue a deeper appreciation and understanding of the genre and its practitioners. At the instructor's discretion, the course may focus on a particular theme, subgenre, or historical period. (SCC)

ENGL 271 - World Literature to 1650 (5 cr)
This course offers a comparative approach to the literature of Europe, Asia (including East Asia, the Middle East, and the Subcontinent), Africa, and the Americas. Readings explore both diversity and continuity in the written expression of multiple world cultures from the dawn of literacy to the Early Modern period. (SCC)

ENGL 272 - World Literature since 1650 (5 cr)
This course offers a comparative approach to literature from Europe, Asia, Africa, and the Americas. Students trace the emergence of a global literature from the period of European colonialism to the contemporary multicultural world. (SCC)

ENGL 278 - Women Writers (5 cr)
This course emphasizes the themes, conventions, and techniques employed by women writers. Students analyze fiction, poetry, and drama written by women in order to gain a greater understanding of and appreciation for the literary contributions of women across class and cultural boundaries. (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. Prerequisite: Minimum of 2.0 in ENGL& 101 or permission of instructor. Course may be taken twice with different topics, to a maximum of 10 credits. (SFCC)

ENGL 335 - Technical and Professional Writing (5 cr)
This course emphasizes the writing of clear and direct prose for a variety of workplace audiences. Topics include usability in writing, communication as a form of problem-solving, research approaches appropriate to technical and professional fields, and visually effective document design. Credit will not be granted for both ENGL& 235 and ENGL 335. Prerequisite: Applied BAS degree students only. (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)
Introduction to weather and climate science providing a broad overview of topics related to the evolution, composition, and circulation of the atmosphere. Emphasis is placed on meteorological fundamentals including air pressure, fronts, interpretation of weather maps, cloud formations, and lightning. Extreme weather events and climate change will also be covered. (SCC)

ENVS 216 - Fisheries Ecology (5 cr)
This course covers the ecology of freshwater fish and fisheries. We will focus on fish biology and identification, riparian structure and function, fisheries management, and approaches to conservation of fisheries. (SCC)

ENVS 217 - Wildlife Techniques (4 cr)
This course builds on basic ecology skills and focuses on applied sampling theory, field approaches, and practical applications relative to wildlife habitat and population sampling methods. Prerequisite: ENVS 207, NATRS 120, 122 or permission of instructor. (SCC)

ENVS 219 - Freshwater Ecology (5 cr)
Students develop a conceptual model of biotic and abiotic factors and processes in stream, lake, riparian and wetland ecosystems. Stream classification, riparian condition assessment and wetland delineation methods commonly used in the Pacific Northwest, including identification and understanding of the role of riparian and aquatic plants, algae, vertebrates and macroinvertebrates, will be emphasized. (SCC)

ENVS 220 - Introduction to Geographic Information Systems for Natural Resources (5 cr)
Students apply cartographic concepts to the development of effective reference and thematic maps using ESRI's suite of ArcGIS software. The evaluation, management, collection and display of spatial data is emphasized. Geoprocessing tools are applied to environmental science scenarios. Basic computer skills required. (SCC)

ENVS 226 - Fisheries Techniques (4 cr)
This course involves the study of sampling techniques for fish and aquatic habitats in streams and lakes in the inland northwest. Emphasis is put on practical experience with techniques commonly used by fisheries technicians. Prerequisite: Enrollment in program or permission of instructor. (SCC)

ENVS 227 - Advanced Wildlife Biology (4 cr)
This course builds on the basic ecology skills developed in ENVS 207 and focuses on the integration and practical application of fish and wildlife ecological theory. (SCC)

ENVS 231 - Applied Research in Geographic Information Systems (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. GIS projects may include GPS and remote sensing data collection, data compilation and management and GIS analysis. (SCC)

ENVS 232 - Applied Research in Hydrology (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Hydrology projects may include discharge measurement, developing ratings, stream gage operation, and surveying. (SCC)

ENVS 233 - Applied Research in Water Quality (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Water quality projects may include development of sampling plans, data collection, and field and bench analysis. (SCC)

ENVS 234 - Applied Research in Water/Wastewater Operations (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Water/Wastewater projects may include distribution and collection systems, treatment processes and control systems. (SCC)

ENVS 235 - Applied Research in Watershed Restoration (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Watershed restoration projects may include habitat characterization and project design, management and installation. (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)

ENVS 247 - Fire, Ecology, & Ecosystems of the Pacific Northwest (5 cr)
Fire is a fundamental ecological force in Pacific Northwest ecosystems and has shaped our grasslands, shrublands, and forests for millennia. The prevalence of fire in Pacific Northwest ecosystems has resulted in adaptations for survival of the plants and animals inhabiting this region which must be understood to ensure long term health and sustainability of our ecosystems. From a human perspective, fire is viewed as a destructive agent as well as a useful tool. In this course we will learn what fire ecology is and why understanding it is a crucial step in maintaining and restoring our unique and important ecosystems. We will cover the basics of fire, including the effects of abiotic and biotic processes including weather, climate, and human development. We will also look deeply into the shift over the past 200 years in fire regime, from extensive native burning, through the era of fire suppression, and into the future of fire as a restorative tool. We will also investigate the perceptions of fire and how fire is portrayed from both a scientific and cultural perspective through investigating literature and media with an eye towards understanding the true potential and limitations of fire on the landscape. (SCC)

EXPANDED FUNCTION DENTAL AUXILIARY

EFDA 141 - Dental Assisting Review (5 cr)
This course is designed to provide the practicing dental assistant a review of basic expanded function dental auxiliary skills as a state requirement for the expanded function dental auxiliary course content. The course includes an overview of skills dental assistants are allowed to perform under the dentists general and close supervision, such as, patient oral health and nutrition counseling, coronal polishing, fluoride treatments, sealant placement, suture removal, exposure and mounting of dental radiographs, managing medical emergencies, maintaining the operating field, extra oral and intraoral exams and sterilization procedures. This lecture course is a corequisite to EFDA 142 Dental Assisting Review Lab. (SCC)

EFDA 142 - Dental Assisting Review Lab (2 cr)
This course introduces the basic principles and practices of expanded function dental assisting in a laboratory setting, which includes infection control and safety, basic chairside procedures such as distributing a medication, placing sealants and rubber dams, intake of a new patient to include medical history, vital signs and dental charting, oral health promotion and disease prevention along with coronal polish and fluoride uses. Students will learn about the supportive services allowed under dentist supervision, such as dental radiography and dental charting. Upon completion of the course, students will be prepared to advance to more advanced coursework in the EFDA program. This laboratory course is a corequisite to EFDA 141 Dental Assisting Review. (SCC)

EFDA 143 - Fundamentals of Expanded Function Dental Auxiliary (2 cr)
This course introduces the principles and practices of expanded function dental assistants; including communication in the dental office, EFDA appointment length and scheduling, writing cover letters and resumes for future employment, legal and ethical aspects of the EFDA in a dental practice in the state of Washington, EFDA wages, and EFDA leadership in the dental office. The student will also learn supply ordering, maintaining an inventory and how to create a dental supply system. And lastly, each student will learn about how to interact with diverse cultures while maintaining equity and inclusion for all patients and co-workers in a dental office setting. Upon completion of the course, students will be prepared to move to more advanced coursework in the EFDA program. (SCC)

EFDA 144 - Amalgam Restorations (2 cr)
This course is designed to provide students with a thorough understanding of amalgam as a restorative material, including its composition, physical properties, and clinical applications. Students will learn about the safety considerations related to amalgam handling and placement, as well as proper techniques for amalgam restoration. The course is a corequisite for EFDA 145 Amalgam Restorations Lab and will prepare students for expanded function procedures that involve the use of amalgam. (SCC)

EFDA 145 - Amalgam Restorations Lab (4 cr)
This laboratory course is a corequisite for EFDA 144 Amalgam Restorations and provides students with hands-on experience in the safe placement, handling, carving and manipulation of amalgam restorative materials. Students will learn to apply the principles of amalgam restoration placement and to perform clinical procedures on a typodont in a laboratory setting. Upon completion of the course, students will be prepared to perform expanded function procedures that involve the use of amalgam restorative materials. (SCC)

EFDA 151 - Composite Restorations (2 cr)
This course is designed to provide students with the knowledge and skills necessary for working with composite resin and glass ionomers in dental restorations. Topics covered include the composition and physical properties of these materials, proper handling and placement techniques, along with patient management. (SCC)

EFDA 152 - Composite Restorations Lab (4 cr)
This hands-on laboratory course is designed to build on the knowledge and skills gained in EFDA 151 Composite Restorations, providing students with the opportunity to apply safe placement, handling, and manipulation techniques to complete composite restorations. Students will practice composite restoration procedures on a variety of dental typodonts. By the end of this course, students will have developed the proficiency and confidence needed to provide high quality composite restorations in both a laboratory and clinical setting. (SCC)

EFDA 153 - Dental Impressions (2 cr)
This course is designed to provide students with a comprehensive understanding of dental impressions. Topics covered include the fundamentals of preliminary and final impressions, as well as bite registrations through a combination of lectures, case studies, and hands on demonstrations, students will learn about the materials and techniques used to take accurate and reliable impressions, including tray selection and placement, mixtures, and manipulation. By the end of this course, students will have the knowledge and skills needed to prepare for and take high quality dental impressions (SCC)

EFDA 154 - Dental Impressions Lab (2 cr)
This hands-on laboratory course builds on the theoretical knowledge gained in EFDA 153 Dental Impressions, providing students with the opportunity to practice taking accurate and reliable dental impressions. Working under the supervision of experienced dental professionals, students will learn to apply the materials and techniques covered in EFDA 153 to take preliminary and final impressions, as well as bite registrations. Through a combination of patient simulations and dental models, students will develop the proficiency and confidence needed to provide high-quality dental impressions in a clinical setting. (SCC)

EFDA 155 - Clinical Practice (5 cr)
This course provides students with hands-on clinical experience in the dental clinic setting. Under the supervision of licensed dentists, students will perform assigned expanded function duties, including but not limited to restorative procedures, final impressions and preventive services. Students will be expected to apply their knowledge of patient safety standards and industry best practices, while developing the skills and confidence needed to succeed as a professional dental auxiliary. (SCC)

EFDA 156 - Board Exam Preparation (1 cr)
This course is focused on the didactic portion of preparing the student to successfully apply for and complete both the written WARE and the clinical CITA/WREB board exams. This course includes the examination portion of the WARE and preparing for the clinical portion of the CITA/WREB restorative exams. This course is a corequisite to EFDA 157 Board Exam Preparation Lab to prepare the student for examinations for licensure. (SCC)

EFDA 157 - Board Exam Preparation Lab (2 cr)
This hands-on laboratory course builds on the knowledge gained in EFDA 156, providing students with the opportunity to practice taking both the written WARE exam and the hand-on CITA/WREB exam for gaining licensure. Students will learn to apply all the knowledge they have gained in the EFDA program to successfully complete both board exams for licensure. (SCC)

FILM

FILM 140 - Silent Cinema (3 cr)
The silent cinema film course traces cinema's rapid evolution from its primitive beginnings to the sound era. A variety of films from around the world are studied in terms of artistic, historical and social contexts. Film clips and full-length films produced and directed by the pioneers of the film industry will be viewed. (SFCC, SCC)

FILM 141 - Introduction to Film (5 cr)
(Formerly HUM 141) This course is a basic introduction to how films communicate meaning and reflect and influence society. The course gives the students an understanding of film forms, techniques and styles. Students develop a critical viewpoint and become 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. (SFCC, SCC)

FILM 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: FILM 141 or permission of instructor. (SCC)

FILM 221 - Great Film Directors (5 cr)
(Formerly HUM 221) This course is designed for students interested in exploring the films, styles and themes of great film directors--American and international. (SFCC)

FILM 222 - American Film Classics (5 cr)
(Formerly HUM 222) Students will view classic American films from the late nineteenth century to the present. The course explores the development of movies through the decades, examining films from their technological, artistic, and industrial perspectives, enabling students to recognize classic films and filmmakers as both reflections of and influences on American culture. (SFCC)

FILM 224 - Contemporary Global Cinema (5 cr)
(Formerly HUM 224) This course is a study of international films from a variety of countries that have been produced within the past fifteen years. As different cultures are explored, an emphasis is placed on distinguishing foreign film as cultural art. (SFCC)

FILM 225 - Independent Film (5 cr)
(Formerly HUM 225) Independent Film explores the diversity of films and filmmakers made outside of the Hollywood mainstream, both in the U.S. and abroad. (SFCC)

FILM 236 - The Documentary Film (5 cr)
Formerly HUM 236. 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. (SFCC)

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 (3 cr)
Students are introduced to the fundamentals of fluids in motion and at rest and their applications to the fire service industry. (SCC)

FS 109 - Safety, Health, & Wellness for Emergency Services (3 cr)
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations. (SCC)

FS 114 - Emergency Vehicle Operations (6 cr)
This course introduces the student to safe driving techniques and practices. In addition, the student will operate fire apparatus in a controlled environment. (SCC)

FS 115 - Community Relations (3 cr)
This course uses the concepts of Life Safety Education and Fire Prevention as a partial means of building community relations. In addition, other aspects of community relationship building are explored. (SCC)

FS 116 - Introduction to Technical Search & Rescue (6 cr)
This course will introduce the student to concepts and practices related to technical rescue in the Fire Service. Emphasis will be placed on the use of ropes and systems common in the fire service. (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 (4 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-180. Prerequisite: Volunteer or career firefighter or acceptance by special permission. (SCC)

FS 211 - Introduction to Fire Science (3 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. (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 221 - Intermediate Fire Science (3 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. (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 (3 cr)
This course continues building on the foundation provided in FS 211 and FS 221 emphasizing leadership and advanced fire service skills. 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 as well as preparing them for continuing their professional growth once in the field. These activities include practicing various steps needed to locate and secure a position in the fire service. (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)

FIRST YEAR EXPERIENCE

FYE 105 - Student Success (2 cr)
This course guides students in learning academic and personal skills necessary for success in college and employment. Through career exploration and education planning, students will engage in informed decision making essential for graduation. (Formerly GUID 105). (SFCC)

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& 122 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& 123 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. (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. (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. (SFCC)

GENERAL STUDIES

GENST 105 - Prior Learning Portfolio Development (2 cr)
A 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. (SCC)

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. (SFCC)

GEOGRAPHY

GEOG& 100 - 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. (Formerly GEOG 101) (SCC, SFCC)

GEOG& 102 - 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. Formerly GEOG 230. (SCC, SFCC)

GEOG& 207 - Economic Geography (5 cr)
The location, movement and interaction of capital, labor, raw materials, production and consumption. The growth and intensification of global ties, the distribution of resources and wealth, and the resulting inequalities and tensions. Topics include trade, development, resource extraction, agriculture, manufacturing, and service sector economies, transportation, communication, and environmental impact. (SFCC)

GEOG 211 - Weather and Climate (5 cr)
The nature of the atmosphere including: weather elements, systems and processes, and the impact weather has on humans and vice versa. Extreme weather events are included. Also examines natural and anthropogenic changes in Earth's present, past, and future climate. Cannot also earn credit for ENVS 211. (SFCC)

GEOG 255 - Nat Resources & Conserv Mgmt (5 cr)
Examines economics, policies and laws, and philosophical perspectives from around the world which are used in conservation and management of natural resources. (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, waterspouts, disease, tornadoes, wind shear, tsunamis, tides, river tides, volcanoes, glaciers, earthquakes, quick clay (spontaneous liquefaction), landslides, floods, droughts and lightning. (SCC, SFCC)

GEOG 280 - Health and Medical Geography (5 cr)
The location of factors influencing physical and mental human health and healthcare including human-environment interactions, economic development, laws and policies, and disease in the USA and around the world. (SFCC)

GEOLOGY

GEOL& 100 - Survey of Earth Science (5 cr)
This course provides a survey of Earth including topics on rock and mineral characteristics, natural hazards, surface and groundwater environments, marine and continental environments, resources, and landforms. This is a non-lab physical science course, and credit will not be granted for both GEOL& 100 and GEOL& 101. (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& 100 and GEOL& 101. (SCC, SFCC)

GEOL 116 - Environmental Geology (5 cr)
An introduction to environmental geology including geologic processes and landforms. 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 the earth and its rock types, as well as the evolution of lifeforms through time. The effects of plate tectonics on paleoclimates, paleogeography, 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, SFCC)

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 (formerly GEOL 101) or permission of instructor. (SCC)

GOVERNMENT, STUDENT

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. (SFCC)

GOVT 192 - Student Senate (1-2 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. (SFCC)

GRAPHIC DESIGN

GRDSN 101 - Design Process I (4 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: Permission of the 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 design projects. Content includes operation of page layout, drawing and scanning software applications. Prerequisite: Concurrent enrollment in GRDSN 101 or permission of instructor. (SFCC)

GRDSN 105 - Drawing for Graphic Designers (3 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 (5 cr)
This course focuses on major design movements as they relate to visual communication. Beginning with the invention of writing and continuing to 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. (SFCC)

GRDSN 111 - Design Process II (4 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. Prerequisite: GRDSN 101, 102 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 102 and GRDSN 181, or permission of instructor. (SFCC)

GRDSN 121 - Design Process III (4 cr)
In this course, students apply the design process 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. Prerequisite: GRDSN 111 and concurrent enrollment in GRDSN 122. (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. Prerequisite: GRDSN 112 and concurrent enrollment in GRDSN 121. (SFCC)

GRDSN 151 - Typography and Layout (3 cr)
This course introduces students to the history, nomenclature and practical application of typography. Projects range from simple typographic compositions to complex multi-page documents in print and digital media. In addition to conventional type formatting, students will explore creative solutions using type as expressive visual form. Prerequisite: GRDSN 101, 102 or permission of instructor. (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 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 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 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 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 175 - After Effects I (2 cr)
This is an introductory course in After Effects software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create 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. Students also use After Effects with applications such as Illustrator and Photoshop. (SFCC)

GRDSN 178 - After Effects II (2 cr)
This is an intermediate course in Adobe After Effects software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools to create 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. Students also use After Effects with applications such as Illustrator and Photoshop. (SFCC)

GRDSN 179 - Experience Design I (2 cr)
This is an introductory course using current Adobe software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools to create vector based prototypes for web and mobile devices. (SFCC)

GRDSN 180 - Experience Design II (2 cr)
This is an intermediate course using current Adobe software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools to create vector based prototypes for web and mobile devices. (SFCC)

GRDSN 181 - Web Development I (4 cr)
Students are introduced to design and construction of web pages using HTML (Hypertext Markup Language), CSS (Cascading Style Sheets) and JavaScript. Students learn standards-based web development. Cascading style sheets are used in designing and structuring effective and accessible web pages for browsers and mobile devices. (SFCC)

GRDSN 182 - Web Development II (3 cr)
This intermediate course builds off of the Web Development I course. Students apply server / client side programming to create dynamic web pages. Students design and build web / mobile web projects using JavaScript and other scripting languages. Prerequisite: GRDSN 181 or permission of instructor. (SFCC)

GRDSN 183 - Web Development III (3 cr)
This advanced course builds off the Web Development II course. Students create web / mobile projects using HTML, CSS, JavaScript and Content Management Systems (CMS). (SFCC)

GRDSN 201 - Design Process IV (4 cr)
In this course, students compare the design process as it applies to a wide range of computer-generated imagery. Students engage in intermediate-level design, communication, problem-solving and conceptualizing activities. Prerequisite: GRDSN 121 and concurrent enrollment in GRDSN 202 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 and concurrent enrollment in GRDSN 201 or permission of instructor. (SFCC)

GRDSN 211 - Design Process V (4 cr)
Working with real-world design problems, students apply their expertise in developing design solutions for various media. Emphasis is on organizing information, typography and imagery to create clear, creative design solutions. Prerequisite: GRDSN 201 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 202 or permission of instructor. (SFCC)

GRDSN 221 - Design Process VI (4 cr)
This course prepares students for entrance into the workforce. Students self-assess projects and identify weak points in their design projects in order to be more competitive when entering the job market. Students redesign work to bring it up to professional portfolio standards. In addition, students create new portfolio projects. Prerequisite: GRDSN 212 or permission of instructor. (SFCC)

GRDSN 223 - Design Portfolio (3 cr)
This course prepares student for entry-level employability. Students create a resume, cover letter, personal brand and a professional portfolio of their best work. Additionally, students create a multi-media marketing campaign, promoting their qualifications to design industry employers. Prerequisite: GRDSN 211 or permission of instructor. (SFCC)

GRDSN 235 - Multimedia I (3 cr)
Students learn to create interactive media at an introductory level. Students learn design and technical skills necessary to create and combine text, graphics, video and audio for digital distribution. Prerequisite: GRDSN 121 or permission of instructor. (SFCC)

GRDSN 236 - Multimedia II (3 cr)
Students learn to create interactive media at an intermediate level. Students learn design and technical skills necessary to create and combine text, graphics, video and audio for digital distribution. Prerequisite: GRDSN 235 or permission of instructor. (SFCC)

GRDSN 237 - Multimedia III (3 cr)
Students learn to create interactive media at an advanced level. Students learn design and technical skills necessary to create and combine text, graphics, video and audio for digital distribution. Prerequisite: GRDSN 236 or permission of instructor. (SFCC)

GRDSN 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: GRDSN 122 or permission of instructor/coordinator. (SFCC)

GRDSN 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: GRDSN 122 or permission of instructor/coordinator. (SFCC)

GUIDANCE

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)

GUID 102 - Strategies for Success (3 cr)
Students learn specific skills to increase their success in college and help them achieve their academic and professional goals. This course also provides an opportunity to discuss and reflect on issues of power, privilege, and inequity as it relates to personal growth. Students learn study skills, test-taking strategies, time management, campus resources, and more. Students also develop an educational plan to assist them in selecting and completing a program of study at the community college. (SCC)

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 102 - Health Enhancement (5 cr)
Health Enhancement emphasizes the importance of knowledge, attitudes, and practices relating to a healthy lifestyle. It is a course designed to expose students to a broad range of issues and information relating to the various aspects of personal health, which include the physical, social, emotional, intellectual, spiritual, and environmental aspects. Topics of exploration include, but are not limited to: nutrition, physical fitness, recognition of stress and weight management. (SFCC, SCC)

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 biofeedback 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 120 - Professional Technical First Aid (1-5 cr)
This course will cover a wide range of First Aid subjects to meet job requirements in an ever changing work environment. The course will cover CPR for the adult, child and infant (mouth to mouth, mouth to nose, and compression only CPR), rescue breathing, choking hazards (anatomical and mechanical), automated external defibrillators (V-fib and V-tach), severe bleeding (avulsions, punctures, lacerations and abrasions), shock (cardiogenic, hypovolemic, etc.) burns (thermal, chemical, electrical and radiant), heat exhaustion, heat stroke, hypothermia and frostbite, strains, sprains, fractures (open and closed), dislocations, and poisoning. The students will leave this course with a nationally recognized First Aid and CPR card (i.e., American Red Cross, American Heart Association or National Safety Council) valid in all 50 states and allowing for an easy recertification process. (SCC)

HLTH 174 - First Aid (3 cr)
Principles, theory, and skills of standard CPR/first aid and safety, which prepare students to make appropriate decisions regarding CPR/first aid care and to act on those decisions. Students will learn to recognize emergencies, follow the emergency action steps, and provide care for injuries or sudden illnesses until professional medical help arrives. This course offers numerous options for certification through the American Heart Association. The following certifications are possibly attained in this course: BLS healthcare provider, Heartsaver adult, child and infant CPR/AED, and Heartsaver first aid. Cards are available upon successful completion of the on-ground course. The online HLTH 174 class does not offer cards. (SCC, SFCC)

HLTH 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)

HEALTH EDUCATION

HED 103 - Steps to Success in Health Careers (3 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 communication skills are presented. (SCC)

HED 104 - 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)

HED 105 - Medical Terminology and Anatomy (5 cr)
This course emphasizes the unique language of medicine, normal anatomy and function, and disease and disorders of the body with a system-by-system approach. Prerequisite: HED 104 or permission of instructor. (SCC)

HED 106 - 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: HED 104 and 105 or permission of instructor. (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 BIOL& 241, or permission of instructor. (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 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. (SCC)

HEALTH INFORMATION MANAGEMENT

HIM 103 - HIM Theory and Practice (5 cr)
Students are introduced to the health information management field, history of healthcare, health professions, medical field, health records, and health record personnel. Students will learn facility organization, regulatory agencies, and the roles and function of health information personnel. Students will be introduced and have hands on experience with quantitative and qualitative analysis of records according to standards. Acute care hospital-based systems and the role of admission services is in initiation of records are addressed. Application of computer systems in a database, analysis of record content and record management are presented. (SCC)

HIM 104 - Medical Terminology & Anatomy for Coding Classification & Abstraction I (5 cr)
This course is designed to develop an understanding of Medical Terminology and Anatomy from chart abstraction and medical coding perspective. At the conclusion of this course, the student will understand basic word parts and rules for building anatomical and pathological terms for specific body systems. Students will understand the relationship of these terms to diagnostic and procedural terminology, chart abstraction and coding. This course introduces the student to healthcare terminology, body structure, and directional terminology and focuses on the following body systems: Musculoskeletal and Connective Tissue, Skin and Subcutaneous Tissue, Digestive System, Genitourinary System and Obstetric, Perinatal and Congenital Conditions (SCC)

HIM 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)

HIM 106 - Medical Terminology & Anatomy for Coding Classification & Abstraction II (5 cr)
This course is a continuation of HIM 104 and is designed to develop an understanding of Medical Terminology and Anatomy from chart abstraction and medical coding perspective. At the conclusion of this course, the student will understand basic word parts and rules for building anatomical and pathological terms for specific body systems. Students will understand the relationship of these terms to diagnostic and procedural terminology, chart abstraction and coding. This course focuses on the following body systems: Blood and Blood Forming Organs, and Immune Mechanisms, Circulatory Systems, Respiratory Systems, Nervous System, Mental and Behavioral Disorders, Eye and Adnexa, Ear and Mastoid Process, Endocrine System and Nutritional and Metabolic Diseases (SCC)

HIM 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)

HIM 135 - Comparative Health Records (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: HIM 103. (SCC)

HIM 160 - Computer Application in HIM (5 cr)
Universal terminology associated with computer software and hardware used in the Health Information Management field is introduced in this course. Students will receive a brief overview of Microsoft Word, Excel, and PowerPoint. Students will be introduced to the basics of electronic health records (EHRs), general healthcare computer systems, data retrieval, and other EHR system topics. This course is the first in a two-part series to familiarize the student with basic computing skills that are essential in the healthcare setting. (SCC)

HIM 162 - Electronic Health Records (3 cr)
This course is a continuation of the concepts introduced in HIM 160. Emphasis is on understanding the selection and transition process of the EHR as well as learning specifics involving the governance of the data that is generated by EHRs as well as other clinical information systems. Students will have hands on experience with EHR applications and practice with applying policy to govern data. (SCC)

HIM 167 - Current Issues in HIM (4 cr)
Students are introduced to issues and terminology that are relevant to the Health Information Management field. Prerequisite: Completion of all first-year requirements. (SCC)

HIM 203 - Clinical Preparation (1 cr)
This clinical preparation course provides an opportunity to interact with an HIM professional working in healthcare to learn more about the skills required in medical coding, chart analysis, and basic medical record proficiencies. Students apply interview and research skills to learn about careers in HIM. Students will also prepare for their onsite clinical practicum which comes during the last quarter of the program. They will complete necessary tests and paperwork to satisfy community affiliation agreements. This course must be taken within one year of program completion. (SCC)

HIM 209 - Health Data Analysis and Display (4 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. Descriptive, inferential concepts as well as presentation and analysis of data using computer applications are addressed (SCC)

HIM 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. (SCC)

HIM 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 HIM 104 and HIM 106. (SCC)

HIM 213 - Clinical Practice (4 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 HIM 240. (SCC)

HIM 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: HED 129, HIM 103, and HIM 212 or permission of instructor. (SCC)

HIM 215 - ICD-10 Procedural Coding (4 cr)
Students are introduced to the ICD-10-PCS coding system for assigning codes to inpatient procedures. Students code utilizing operative reports and participate in lab exercises. Prerequisite: HIM 212 or MSEC 123. (SCC)

HIM 216 - Reimbursement Strategies for HIM Professionals (5 cr)
This course introduces students to reimbursement methodologies utilized in various healthcare settings. Healthcare reimbursement policy and processes are applied to ensure compliance with regulatory requirements. Students use data to analyze appropriate reimbursement and correct application of classification systems. Career roles and responsibilities and employment opportunities also are covered. Prerequisite: Completion of HIM 212, 214, 215. (SCC)

HIM 217 - Introduction to Applied Statistical Analysis for Healthcare (5 cr)
The application and interpretation of statistics for medical professionals are presented in this course. Descriptive and inferential statistical methods that are most useful in business and medical-related research studies are emphasized. This course is not transferable to non- HIM programs and may be subject to review prior to transfer to HIM programs. This course cannot be substituted for BUS 217. Prerequisite: HIM 209 with a 2.5 or better. (SCC)

HIM 222 - Data Analytics (5 cr)
This course will introduce healthcare data analytics through a hands-on approach to working with different data across an analytic continuum. Students will extract data from large databases, utilize spreadsheet software to normalize the data and finally import the data into analytic software for statistical analysis and interpretation of findings. This course will help the student to demonstrate competency in the domains of data management as well as information management and analytics. Prerequisite: HIM 209 and HIM 217 (SCC)

HIM 240 - HIM Clinical Seminar (4 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. Students learn about what to expect in seeking a job, how to act professionally in the HIM field, and human resource topics. Students will be given weekly assignments and mock RHIT exams to prepare them for their certification exam upon graduation. Prerequisite: Completed all HIM program courses or concurrent enrollment in HIM 213. (SCC)

HEALTH/FITNESS TECHNICIAN

FMT 106 - Anatomical and Physiological Kinesiology (5 cr)
This course is designed to study the anatomical aspects of the human body, including the skeletal, muscular, mechanical, and functional. 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 - Special Considerations in Exercise (3 cr)
This course analyzes the physiological and psychological characteristics of older adults, adolescents, children, and pre/post-natal individuals as they apply to fitness assessment and exercise programming. It also examines the impact of exercise on various conditions such as diabetes, cardiovascular and pulmonary disease, obesity, and musculoskeletal disease. In addition to lecture, lab time is designed to develop "hands-on" knowledge of fitness assessment, exercise technique and related modifications. Prerequisite: FMT 204. (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 are 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 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 235 - Biomechanics (5 cr)
This course covers the application of the mechanical principles involved in sport and exercise. Students are supplied with basic tools to facilitate the identification, analysis, and solution of problems related to human movement. Topics covered include basic terminology, kinematic and kinetic concepts, linear and angular movement, and equilibrium. (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. Prerequisite: Must be admitted to HIS program. (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. Prerequisite: Must be admitted to HIS program. (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. Prerequisite: Must be admitted to HIS program. (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. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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 healthcare office’s business operations. Prerequisite: HIS 104, 106 or permission of instructor. Must be admitted to HIS program. (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 or permission of instructor. Must be admitted to HIS program. (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: HIS 104, 106, or permission of instructor. Must be admitted to HIS program. (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 or permission of instructor. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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 or permission of instructor. Must be admitted to HIS program. (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 or permission of instructor. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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. Must be admitted to HIS program. (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 103 - Fundamentals of Electricity in HVAC/R (4 cr)
Students explore the fundamental concepts of electricity and magnetism, and basic applications in the HVAC/R trade. Theory includes voltage, direct and alternating current, resistance, series and parallel circuits, electrical symbols and schematic diagrams, electrical safety, and basic electrical components. Emphasis will be placed on the skills to interpret basic schematics for gas heat, electric heat, and air conditioning systems. (SCC)

AIRC 106 - HVAC/R Electrical Applications (6 cr)
Students further explore electrical applications in the HVAC/R field. Topics include motors, line voltage and low voltage controls, relays, transformers, and thermostats. Special emphasis is placed on the development and use of schematic and wiring diagrams for troubleshooting gas and electric furnaces. (SCC)

AIRC 107 - HVAC/R Electrical Applications Lab (8 cr)
Topics will include wiring, testing, and troubleshooting of series and parallel circuits, low voltage and line voltage controls, interpretation of schematic diagrams, and electrical safety. Emphasis will be placed on wiring, testing, and troubleshooting an electric and gas furnace. (SCC)

AIRC 108 - Fundamentals of Heating Systems (6 cr)
This course introduces the fundamentals of heating with forced air fuel gas burning appliances and electric heating appliances. Students will explore gas codes, venting, gas piping, the combustion process, and components of residential and light commercial heating systems. Emphasis will be placed on sequence of operation, troubleshooting, and the relationship of the electrical and mechanical functions as a complete system. (SCC)

AIRC 109 - Fundamentals of Refrigeration (5 cr)
Students will explore the physics and theory governing the vapor-compression refrigeration cycle, human comfort and psychometrics, and practical applications of refrigeration systems. (SCC)

AIRC 110 - Fundamentals of Refrigeration Lab (10 cr)
Students will focus on the proper use of refrigeration tools, evaluating refrigeration system performance, analyzing ladder diagrams, and troubleshooting electrical components. (SCC)

AIRC 125 - Sheet Metal Layout and Fabrication (1 cr)
This course introduces the theory and practical application of sheet metal practices in duct fabrication. Topics include sheet metal tools, layout, duct fabrication, and duct installation procedures. (SCC)

AIRC 126 - Sheet Metal Layout and Fabrication Lab (3 cr)
Lab component to accompany AIRC 144 Sheet Metal Layout and Fabrication. Students will use sheet metal tools, equipment, and layout procedures to fabricate and install a duct system. (SCC)

AIRC 136 - HVAC/R Safety (1 cr)
This course will introduce students to the safety requirements mandated by the Washington Department of Labor and Industries and OSHA. Topics include safety standards, fall protection, electrical safety, struck-by, caught-in or between, PPE, HAZMAT, and health hazards in construction. (SCC)

AIRC 137 - Fundamentals of Heating Systems Lab (8 cr)
Students will wire, troubleshoot, and repair residential and light commercial heating systems. Emphasis will be placed on developing skills to identify system problems, troubleshooting strategies, and repair procedures. (SCC)

AIRC 203 - Fundamentals of Air Conditioning (7 cr)
This course continues refrigeration instruction to also include comfort cooling and air conditioning. Students will explore techniques for proper refrigerant handling, recovery, recycling, reclaim, and evacuation, in preparation for the EPA 608 Refrigerant Handling License. Electrical skills will be further developed, exploring the use of electric motors, capacitors, motor protective devices, additional controls, and code compliance. (SCC)

AIRC 204 - Fundamentals of Air Conditioning Lab (7 cr)
Students will focus on the proper use of refrigeration tools, evaluating refrigeration and air conditioning system performance, analyzing ladder diagrams, troubleshooting electrical components, recovery and evacuation procedures, and brazing techniques. (SCC)

AIRC 205 - System Performance Testing (5 cr)
This course will introduce students to the idea of considering the individual components as part of a complete system when evaluating performance. Topics include the measurement of system performance through airflow, critical charge, charging tables for air conditioning systems, combustion analysis for combustion appliances, economizers, fan laws, fan and blower performance, air distribution systems, and hydronics. Heat transfer in buildings and calculation of heat load will also be covered, focusing on the building as a system. (SCC)

AIRC 206 - System Performance Testing Lab (10 cr)
Students will measure airflow and analyze results, evaluate system performance, and practice advanced troubleshooting procedures. Troubleshooting will include refrigeration problems, compressor replacements, electrical problems including compressors, motors, and controls, combustion problems, and airside problems. (SCC)

AIRC 207 - System Servicing and Troubleshooting of Heat Pumps (5 cr)
Students will explore heat pump fundamentals, types of heat pump systems, system accessories, troubleshooting, and diagnostics. Topics include heat pump compressors, flow control, thermostats, controls, control strategies, piping, electrical and mechanical troubleshooting, and airflow. Electrical skills will be further developed, exploring the use of electric motors in heat pump systems, capacitors, motor protection devices, controls, and code compliance. (SCC)

AIRC 208 - System Servicing and Troubleshooting of Heat Pumps Lab (10 cr)
Lab exercises will focus on understanding and troubleshooting the refrigeration cycle, electrical components, evaluation looking at the system as a whole, and strengthening technician skills through the use of schematic reading, troubleshooting procedures, and customer service techniques. (SCC)

AIRC 262 - Fundamentals of Direct Digital Control (5 cr)
This course introduces the fundamentals of control theory and applications for direct digital control in commercial HVAC/R systems. Topics include unique characteristics of commercial buildings, commercial and mechanical systems, control theory, sensors, control strategies, control devices, basic electronics, and basic networked communication systems. (SCC)

AIRC 265 - Fundamentals of Direct Digital Control Lab (10 cr)
Students will select, install, and commission a direct digital control system for a specific commercial application. Applications include a rooftop unit with economizer, geothermal heat pump, and commercial low temp refrigeration system. (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)

HISTORY

HIST 105 - Historical Roots of Contemporary Issues (5 cr)
This course explores the historical roots of various contemporary global problems from multiple perspectives. (SFCC, SCC)

HIST 106 - World History to 1500 (5 cr)
World History to 1500 is a comparative inquiry into societies and cultures on the six inhabited continents. It emphasizes economic, social and political globalization and serves as a broad foundation for further studies in history. (SCC, SFCC)

HIST 107 - World History since 1500 (5 cr)
World History since 1500 is a comparative inquiry into societies and cultures on six inhabited continents. It emphasizes economic, social and political globalization and serves as a broad foundation for further studies in history. (SCC, 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. (SCC, SFCC)

HIST& 117 - Western Civilization II (5 cr)
European man from the feudal period through the French Revolution and the Napoleonic period. (SCC, SFCC)

HIST& 118 - Western Civilization III (5 cr)
The development of Western civilization from the French Revolution to the present. (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. (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. (SCC, 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. (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)

HIST 225 - African American History Since 1865 (5 cr)
Examines the history of African Americans in the United States between 1865 and the present. Topics include the political history of civil rights; experiences with American identity, equality, citizenship; and the social, political, cultural, and economic contributions of African Americans during the 20th century. (SFCC, 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. (SCC, 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. (SCC)

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 112 - Hospitality Mathematics (3 cr)
This course will introduce students to foundational math skills used in foodservice operations including converting recipe sizes, costing of recipes, and working with kitchen ratios. (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. Digestion, energy needs, recommended daily allowances and dietary guidelines are emphasized. Students will learn the importance of nutritional variety in commercial foodservice operations. (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 (3 cr)
Students are introduced to the professional behaviors of a hospitality supervisor. Concepts include responsibilities, collaboration, communication, group dynamics and leadership. (SCC)

HM 141 - Maintenance and Engineering (4 cr)
Students are introduced to the basic technical knowledge required to establish preventive maintenance procedures for hotel/restaurant facilities. (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. (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 206 - Revenue Management (3 cr)
This course introduces students to the basic revenue management techniques used in the hospitality industry. Implementing revenue management strategies that increase profits and raise revenue per available room. (SCC)

HM 208 - Hotel Sales and Marketing (2 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 (3 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)

HM 221 - Event Management (5 cr)
This course introduces students to the basic event management techniques used in the hospitality and tourism industry. Implementing pre-event planning, on-site management techniques and post-event reporting are demonstrated. (SCC)

HM 232 - Hotel/Restaurant Management Principles (5 cr)
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, HM 130. (SCC)

HM 251 - Restaurant Management (5 cr)
Students are introduced to the food and beverage operation of hotels and motels with advanced management techniques. (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 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)

HUMANITIES

HUM& 101 - Intro to Humanities (5 cr)
In this interdisciplinary course, students explore universal questions about the human condition. Students examine creative expression and process, cultural works, and human experience while learning the aesthetics and technical aspects of the humanities within historical and cultural contexts. Students develop critical and creative thinking skills and explore the ways humanities disciplines provide a strong foundation for their degree emphasis. (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)

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. (SCC, SFCC)

HUM 109 - Japanese Culture and Traditions (3 cr)
This course introduces students to the practice of analyzing Japanese culture and traditions in their various forms, from books, magazines, films, advertisements, and music. Students also experience the customs and traditions that characterize everyday life in Japan by interacting with native Japanese people (Mukogawa students) and attending local cultural events. (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 have a special humanities project. (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)

INDUSTRIAL AND MANUFACTURING TECHNOLOGY (COLVILLE)

FLPT 104 - Hydraulics/Pneumatic Fundamentals (6 cr)
Students learn the basic fundamentals of hydraulics/pneumatic operations. (SCC)

FLPT 106 - Introduction to Programmable Logic Controls (PLC's) (2 cr)
Students are Introduced to how Programmable Logic Controls function in industry. (SCC)

INDUSTRIAL MAINTENANCE MECHANIC

IMMA 101 - Technical Drawings (5 cr)
In this course, apprentices will learn to read and interpret technical drawings and schematics, as well as practice basic drafting. Apprentices will begin by learning to interpret the basic elements of a drawing, line types, principles of orthographic projection, and normal, sectional, and auxiliary views. Apprentices will learn to interpret dimensioning and tolerancing on prints, including geometric dimensioning and tolerancing. Drawings studied in this class will come both from the text and from industry, and will include machining, fabrication, assemblies, and fluid power systems. Apprentices will also learn about various types of fasteners, cams, and gears. Hands-on activities in this course include creating various types of shop sketches, and applying print-reading knowledge to inspect a part. (SCC)

IMMA 102 - Lifting and Rigging (5 cr)
Practical application and safe operation of lifting equipment commonly used in industrial maintenance such as forklifts, scissor lifts, and cranes. Apprentices will learn proper and safe techniques for manual lifting, hand signaling, and radio communication. They will learn about methods of moving machinery, which includes lifting materials, supplies, and equipment such as cranes, forklifts, pallet jacks, and engine hoists. This course also covers techniques for lifting personnel such as man lifts and bucket trucks, and includes fall protection training. Apprentices will learn about techniques, calculations, and equipment for rigging and rigging inspection. Hands-on experience may include forklift operation, material staging, rigging projects, crane operation, and field trips where available. (SCC)

IMMA 103 - Precision Machining (5 cr)
The apprentices will explore theory, application, and hands-on experience with precision machining practices for industrial maintenance. Apprentices will explore topics related to manual machine tool setup and operation, for saws, drill presses, engine lathes, milling machines, and grinders. Apprentices will also gain bench work experience, including hole-making and part finishing operation using hand tools. An emphasis will be placed on preventative maintenance and safety in the shop while operating machines and handling tools and materials. Apprentices will plan, machine, and inspect two projects: a C-clamp and a plumb bob. (SCC)

IMMA 121 - Maintenance Welding (5 cr)
Apprentices will explore theory in the classroom and gain hands-on experience with essential welding and cutting practices commonly used for industrial maintenance applications. Apprentices will explore theory and practice for cutting processes such as oxy-fuel cutting, plasma cutting, and ironworker operation. Apprentices will practice welding techniques using the following processes: GMAW (MIG welding), SMAW (stick welding), and OAW. Additional topics include brazing, blueprint reading (welding symbols), repair welding, surfacing, and pipe welding. Apprentices will learn how to properly inspect and set up the equipment before welding, as well as how to prepare materials and various types of joints for welding. Apprentices will also learn about finishing procedures, inspection, and cleanup. The capstone project for this course is a welded steel stepstool that can be used in the home or the shop, which the apprentices will plan out, cut, weld, finish, and inspect. Throughout the course there will be an emphasis on safety, which includes proper attire and personal protective equipment (PPE), as well as potential hazards and necessary safety precautions before, during, and after welding. (SCC)

IMMA 122 - Electrical Systems (5 cr)
In this course, apprentices will learn about industrial electrical theory, components, and equipment necessary to troubleshoot electrical problems. Apprentices will begin by learning to interpret electrical symbols, diagrams, and terminology. They will explore topics such as electric power, circuits, wiring, and transformers. This course will also cover AC theory, motors, control circuits, industrial electronics, line diagrams, circuit logic and programming, as well troubleshooting techniques. Apprentices will gain hands-on experience with electrical components, circuits, and electrical test equipment used in industry. (SCC)

IMMA 123 - Machine Automation Theory (5 cr)
This course explores advancing technologies in manufacturing relevant to industrial maintenance with a focus on programmable logic controllers (PLCs). The course begins with a review of electrical and PLC safety. Apprentices will explore topics such as PLC hardware, installation, maintenance, and programming. Apprentices will learn how to troubleshoot problems that occur with PLC hardware and software. This course incorporates hands-on activities that utilize PLC software and simulators. (SCC)

IMMA 201 - Math for Industrial Maintenance (5 cr)
This course involves the application of mathematics to the industrial maintenance environment. Students will perform standard shop computations and conversions between measurement systems. Relevant mathematical concepts are taken from Algebra, Geometry, and Trigonometry to help students apply formulas and common technical application problems. Basic math skills will be reviewed including decimals, fractions and conversions between them. This course also includes the use and application of formulas required in industry. Students will learn properties of angles and common geometric shapes and relevant trigonometric functions, and they will be introduced to graphs and statistics. (SCC)

IMMA 202 - Maintenance Machining (5 cr)
The apprentices will explore intermediate-level theory, application, and hands-on experience with machining practices for industrial maintenance. Apprentices will learn about CNC machines, drives, positioning systems, feedback methods, and sensors, as well as maintenance and safety topics. Apprentices will learn advanced techniques for operating lathes, milling machines, and other machine tools in order to create their culminating project, a gear puller, which they can use maintenance work. Apprentices will explore additional machining topics important for industrial maintenance, such as key seats and keyways, restoring and removing threads and bolts, and fastening and assembly techniques (SCC)

IMMA 203 - Mechanical Systems (5 cr)
The apprentices will learn to maintain all of the elements of a mechanical system. Apprentices will begin by exploring mechanical fundamentals such energy, mechanical forces, and simple machines. Apprentices will learn to troubleshoot, assemble, and maintain systems and components such as couplings, bearings, belt and chain drives, gear drives, seals and packing, and clutches and brakes. Apprentices will also learn principles of lubrication and machine vibration. Hands-on activities will involve inspecting and making repair recommendations for mechanical systems found in industry such as gearboxes, worm drives, standard transmissions, and differential drives. Apprentices will also practice coupling alignment skills using a simulation station. (SCC)

IMMA 221 - Fluid Power Systems (5 cr)
This course explores the fundamental theories and practical application of fluid power systems with a focus on system setup and maintenance. Apprentices will explore the fundamentals of hydraulic and pneumatic systems, including operation, maintenance, and safety, as well as interpreting related standards, symbols, and diagrams. Components of fluid power systems will be covered in detail, such as compressors, motors, piping and hoses, pumps, actuators, and valves. Apprentices will practice their skills in the troubleshooting and repair of hydraulic and pneumatic systems with simulator software and hands-on activities. (SCC)

IMMA 222 - Materials, Processes, and References (5 cr)
In this course, apprentices will explore metallurgy, material properties and characteristics, related standards, and processes commonly used to manipulate materials. Apprentices will begin by learning about material composition and characteristics of the five basic metals: steel, stainless steel, cast iron, aluminum, and brass (copper). This course will then explore manufacturing processes used to manipulate metals, such as machining, casting, and forging, as well as processes that change their chemical composition, including heat treatment. The apprentices will also learn about and practice inspection techniques such as hardness testing and non-destructive testing (NDT) techniques with modern equipment. Hands-on projects for this course include materials testing, heat treatment, case hardening, casting, and material sample identification projects. Throughout the course, apprentices will research materials and processes in the shop reference Machinery's Handbook. (SCC)

IMMA 223 - Mechatronics Capstone (5 cr)
In this course, apprentices will design, build, and implement a mechatronics project that incorporates skills that have been studied and practiced throughout the industrial maintenance technician apprenticeship. Using new and salvaged parts, apprentices will create a robot or automated system that incorporates mechanical systems, fluid power systems, electrical systems, and programmable logic controllers. Coursework will also include research and written reports related to the project. Apprentices will utilize tools and equipment from the industrial maintenance field including hand tools, machine tools, welding equipment, and measuring tools. (SCC)

INFORMATION SYSTEMS AND TECHNOLOGY

ISIT 310 - Routing and Switching in the Enterprise (5 cr)
Familiarizes students with the equipment, applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. Students are introduced to the design, security and configuration of basic switched networks, VLANs and to the concepts of routing, router configuration. Advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol are investigated. Recommended: IS 262 or equivalent. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 332 - Data Warehousing (5 cr)
This course introduces and applies the concepts of design, implementation, management and troubleshooting of data warehousing, enterprise database technologies, data aggregation and configuration concepts. Technologies include Oracle, MS-SQL, Hadoop and data manipulation solutions. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 344 - Virtualization and Storage (5 cr)
This course introduces and applies the concepts of design, implementation, management and troubleshooting of cloud computing, application, desktop and server virtualization, network virtualization and large storage systems. Technologies include VMWare and Storage Area Networks (SAN) solutions. Recommended: IS 262 or equivalent. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 346 - Network Security (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. Credit will not be granted for both IS 244 and ISIT 346. Prerequisite: IST BAS degree students only. (SFCC)

ISIT 360 - Database Application Development (5 cr)
This course builds on previous coursework and/or experience to design and implement database back-ends and front-ends. Solutions include RDBMS and noSQL designs, and desktop / web-based front-ends. Previous database and coding experience is required. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 362 - 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. Credit will not be granted for both IS 262 and ISIT 362. Prerequisite: IST BAS degree students only. (SFCC)

ISIT 393 - Independent Study (5 cr)
Independent study is offered within the Bachelor of Applied Science in Information Systems Information Technology program in each discipline and is designated by the course number ISIT 393. Students are not to exceed a total of 10 credits of independent study during their tenure at Community Colleges of Spokane. Requirements and limitations concerning courses are available from the Dean of the Bachelor of Applied Science in Information Systems Information Technology program. Prerequisite: IST BAS degree students only. (SFCC)

ISIT 410 - Enterprise Server Administration (5 cr)
Students learn to install, maintain and administer servers and associated networks using a contemporary industry-standard proprietary operating system. Some of the topics covered include hardware requirements; software compatibility; system installation and manual configuration, performance tuning and post-installation topics; advanced administrative and technical practices required for system security; process management; performance monitoring and tuning; storage management; back-up and recovery services. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 444 - Automation/Configuration Management (5 cr)
This course introduces and applies the concepts of design, implementation, management and troubleshooting of task automation, change management, configuration management, and log management in an enterprise computing environment. Examples of technologies include Powershell, Python, Windows Task Manger, and CRON. Recommended: CS 121, IS 262 or equivalent. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 470 - Systems Analysis and Design (5 cr)
This course provides the opportunity to design, implement, and document the system development cycle in an organizational context. Course includes analysis of current systems, logical and physical systems design, program development, testing, implementation, maintenance, and documentation. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 475 - Capstone Internship (5 cr)
The capstone internship course offers students the opportunity to integrate their academic studies and apply their knowledge to real world scenarios. The applied approach to blend classroom exercises with actual support cases will finalize our student's learning experience. This course is designed to help our students make the final connection between the concepts taught by instructors and how their skills will be used in their careers. This is a PASS/FAIL course. Prerequisite: Applied BAS degree students only. (SFCC)

INTEGRATED BEHAVIORAL HEALTH

IBH 310 - Quality of Life and Health Equity (5 cr)
This course provides an overview of social determinants of health and strategies to improve health outcomes. Collective and individualistic lifestyles and health practices will be explored, and public health concepts introduced. Natural environments, social characteristics, and economic conditions will be investigated with a focus on their impact on groups and individuals. (SFCC)

IBH 320 - Behavioral Health Disorders in Integrated Care (5 cr)
This course is designed to familiarize students with the process of diagnosis, documentation, and treatment of various behavioral health disorders. Social, environmental, and individual factors that contribute to the development of behavioral health disorders across the lifespan will be investigated. The course will introduce clinical writing and documentation, and common assessment strategies and care options. It will assist students in conceptualizing cases and communicating patient needs and choices. The importance of appropriate levels of care will be emphasized. (SFCC)

IBH 330 - Application of Evidence Based Practice (5 cr)
This course provides students with a comprehensive overview of evidence-based practices (EBP's) and helps them to develop the basic skills they will need in clinical care or human services settings. Students will analyze current and emerging EBP's and assess which practices are appropriate to use in a variety of contexts. Students will have the opportunity to practice basic skills. (SFCC)

IBH 340 - Trauma, Grief and Loss (5 cr)
This course will introduce students to the neuroscience of trauma & grief. It will focus on theories related to the experience of trauma, exposure to adverse events, grief, and loss. It will also examine the impact of trauma on first responders and human services providers. (SFCC)

IBH 350 - Interdisciplinary Teamwork (5 cr)
This course is designed to engage students in learning the necessary skills to practice as part of an interdisciplinary team. Communication skills to help improve treatment outcomes will be emphasized. Students will acquire a working knowledge of the various roles that healthcare professionals have within a healthcare and human services delivery system of care. (SFCC)

IBH 360 - Treatment and Care Planning (5 cr)
This course is designed to teach practice skills relevant to working with adults and children in a variety of human services and care settings. Effective screening and intake practices, needs assessments, treatment and discharge planning, and documentation will be emphasized. Students will be introduced to biopsychosocial, multicultural, interdisciplinary, and lifespan perspectives and will examine ethical decision-making in the provision of services. (SFCC)

IBH 410 - Integrated Wellness (5 cr)
This course introduces students to strategies for maintaining wellness across the lifespan and provides opportunities to apply them to their professional and personal lives. It will explore the role of cultural, professional, and personal values in the maintenance of physical and mental health. Personal and professional boundaries as they relate to wellbeing will be evaluated. (SFCC)

IBH 430 - Organizational Management and Leadership in Integrated Care (5 cr)
This course is designed to familiarize students with systems of care, its policies, and agencies' and organizations' roles within the system. They will be introduced to basic management and business processes. Students will learn to demonstrate collaborative, interdisciplinary communication and leadership skills. Workplace diversity and equity in the provision of services will be examined. (SFCC)

IBH 450 - Family and Whole Person Care (5 cr)
This course will introduce students to the history and theoretical perspectives of family systems, and generational and cultural considerations in working with families and family members. Students will develop an understanding of family-centered care based on patient and family needs across the healthcare and human services continuum. Family roles across the lifespan, the idea of chosen families, and family boundaries will also be examined. (SFCC)

IBH 460 - Research and Evaluation Methodologies (5 cr)
This course provides an overview and basic history of qualitative and quantitative research. Students will learn how to evaluate care programs and treatment approaches and become familiar with data analysis, methodology, and study design. The connection between scientific data and practice along with associated ethical issues will be explored. Prerequisite: MATH& 146 with 2.0 or higher. (SFCC)

IBH 492 - Field Placement 1 (5 cr)
This class provides students with the opportunity to increase competence in delivering integrated behavioral health services in the community. Students will be applying course concepts to their practice in clinical care or human services settings. This course will also assist students with deepening their understanding of the human services field and increase their awareness of the various career choices that are available. (SFCC)

IBH 493 - Field Placement 2 (5 cr)
This course is designed to assist students in building on the practice skills they learned in the Field Placement 1 course. Through the support of their supervisor, instructor, and organizational staff, students will broaden their understanding of how to work in the various systems of care in the community. Students will explore career paths in the integrated behavioral health and human services field. (SFCC)

INTEGRATED COMMUNITY SERVICES

ICS 100 - Introduction to Integrated Community Services (5 cr)
This course is an introduction to integrated community services and provides an overview of current services. The merits and shortcomings of contemporary and historical practices are explored and discussed. Emphasis is placed on the current delivery system and evidence-based practices. Students are encouraged to explore their interest in a variety of social services and behavioral health areas and investigate what populations they might want to work with. (Formerly HS 102) (SFCC)

ICS 120 - Multicultural Perspectives in ICS (5 cr)
This course explores how culture shapes experience and perspective within the context of behavioral health and social services. The emphasis is on investigating how subcultures impose their own normative structures on individuals, and the influence of cultural background on the planning and delivery of social services. Students are encouraged to explore their own worldview and its relation to understanding and assisting others. (Formerly HSGER 115) (SFCC)

ICS 130 - Treatment and Recovery Models (5 cr)
This course covers concepts, theories, and practices in the social services and behavioral health field. Similarities and differences among historic and current approaches will be explored and appropriateness for different populations will be evaluated. Students will learn about the integration of interdisciplinary work through didactic and experiential learning experiences. (Formerly HS 221) (SFCC)

ICS 140 - Integrated Community Services Seminar (5 cr)
This course acquaints students with specific behavioral health and social services concepts, theories and practices. It is designed to address emerging trends and needs. (Formerly HS 131) (SFCC)

ICS 150 - Introduction to Gerontology (5 cr)
This course provides students with an understanding of the process of aging. Historical, cultural, biological, physiological, psychological, and social aspects of aging are explored. Perspectives on “aging well” are investigated in the context of community and institutional settings. Emphasis will be on the study, research and practicalities of serving the needs of older adults in contemporary American society. (Formerly HSGER 101) (SFCC)

ICS 160 - Therapeutic Techniques (5 cr)
This course focuses on interviewing, counseling, and relationship building skills. It is designed around experiential practices related to assessing and supporting individuals and families. Students will apply treatment and recovery theories and models to specific practice situations. The class is intended to teach basic understanding of the communication skills used with vulnerable populations who seek professional support. Students will practice with other students and in front of the class. Special attention is given to professional skills that maintain psychological boundaries, effectiveness and prevent burnout. (Formerly HSGER 221) (SFCC)

ICS 170 - Social Policy and Advocacy (5 cr)
This course provides an overview of the state and federal policies that shape the socioeconomic condition of many population groups in the United States. Students will learn about the history of social policies, the political circumstances that shape them, and how policies affect the lives of individuals who depend on them. Emphasis is placed on advocacy for client needs in the context of social policies. (Formerly HS 115) (SFCC)

ICS 180 - Child Abuse and Neglect (5 cr)
This course explores the phenomena of child abuse and neglect from the viewpoint of the family. The class examines risk factors that predispose families toward these issues and delves into the legal and psychological issues of physical abuse, physical neglect, psychological maltreatment and sexual abuse. The class will highlight approaches to prevention. (Formerly HS 105) (SFCC)

ICS 200 - Introduction to Long-Term Care (5 cr)
This course explores long-term service delivery programs designed to meet the needs of a variety of populations. Students will be introduced to planning and delivering services for individuals with physical, mental, and psychosocial barriers and health problems. The course includes an overview of various housing and care options and analysis of current demographic changes in disabilities and aging. Special attention is given to delivery of quality care and removal of obstacles to integration. (SFCC)

ICS 210 - Behavioral Health across the Lifespan (5 cr)
This course is an introduction to mental health changes, challenges, and disorders associated with different life stages that are frequently addressed by service providers. Students will study how physiological, psychological, and social factors determine those changes. Diagnostic criteria, assessment, medications, and the coordination of evidence-based treatment and social services will be explored. The cultural context and personal biases will be investigated with the goal of learning how to work in a team that provides integrated services. (Formerly HSGER 210) (SFCC)

ICS 220 - Case Management and Ethics (5 cr)
This course covers case management tasks such as interviewing, screening and assessment, referral, and documentation in an integrated social service system. Students will learn how to conceptualize and address client needs within the context of ethical, strengths-based, and client-centered decision-making. Ethical dilemmas will be explored in accordance with Washington State law and professional ethics. (SFCC)

ICS 230 - Restorative Justice and Re-entry (5 cr)
This course provides an overview of the criminal justice and re-entry systems and their basic policies, institutions, and problems. It examines the role of social services providers in interactions with police, the court, and the corrections system. Students will learn about approaches to re-entry and re-integration of formerly incarcerated individuals. Recidivism and barriers to re-integration will be explored with an emphasis on evidence-based practices in social services. (SFCC)

ICS 235 - Growth and Development Across the Lifespan (5 cr)
This course aims to equip students with a thorough understanding of the complex and dynamic processes involved in human growth and development across the lifespan. It integrates theoretical perspectives with real-world applications to foster a deep understanding of the factors influencing individual and group behaviors in the context of social and environmental conditions. (SFCC)

ICS 240 - Trauma-Informed Services (5 cr)
This course covers the concepts of trauma and adverse childhood experiences on client wellbeing and life outcomes. It investigates how trauma-informed approaches are used in social service settings. Students will learn about basic trauma-specific interventions that are designed to address the consequences of traumatic life events and conditions and the importance of self-care. (SFCC)

ICS 250 - ICS Practicum (5 cr)
Students in the Integrated Community Services program are placed in a practicum setting where they have an opportunity to observe and to work with clients. Each student is individually placed in accordance with their career direction. Placements are made in areas such as gerontology, social services, education, early childhood education, and re-entry. Individual student conferences are arranged to facilitate the total experience. (Formerly HS 281) (SFCC)

INTERIOR DESIGN

INTDS 106 - Sketching/ Rendering (4 cr)
Sketching/ Rendering is a course that builds on basic drawing skills learned in ART 101. Students learn to effectively communicate ideas through quick sketching in a variety of 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. The rendering component focuses on techniques used to convey the interior color palette and materials used in interior spaces. Common industry mediums for rendering will be explored, with a strong emphasis on using rendering as a communication tool. Prerequisite: ART 101 or permission of instructor. (SFCC)

INTDS 170 - Introduction to Interior Design (3 cr)
Introduction to a wide variety of topics that pertain to the industry of interior design and professional practice. Topics covered include: history of interior design as a profession, color theory and how it influences design, interior design theory, design process, space planning fundamentals, and current design industry practices and trends. (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 170 (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 - Drafting for Interior Design (4 cr)
Fundamentals of manual drafting techniques as they pertain to interior design; architectural floor plans, measurement, symbols, sections, elevations and hand lettering will be emphasized as a basis of drafting and design. Students will learn basics of designing custom casework sections and details for projects. (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 - Interior Design Studio III (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. Course emphasizes the importance of design throughout history and how that influences current interior design trends, styles, and techniques. (SFCC)

INTDS 180 - History of Interiors II (3 cr)
This course builds off of the study of history and design in INTDS 179. A survey of types of furniture and interior architectural forms common to various historical periods, including Neoclassic, Victorian, Arts and Crafts, and the Modern Movement. Prerequisite: INTDS 179 or permission of instructor. (SFCC)

INTDS 184 - Drawing Communication (4 cr)
Drawing Communication is a course that builds off of basic hand drafting techniques and terminology from INTDS 173. Students will learn new skills in the area of three dimensional drawing, including technical 1 and 2 point perspective drawing, paraline drawings, and basic model building techniques. Prerequisite: INTDS 173 or permission of instructor. (SFCC)

INTDS 185 - Building Systems / Lighting (5 cr)
Introduction of specific systems within a building that directly affect the interior environment to include structural components, heating/air conditioning, electrical systems, water supply/sanitary drainage and sound/acoustic systems. Additional emphasis is placed on lighting design and its relation to the interior environment. Prerequisite: INTDS 170 or permission of instructor. (SFCC)

INTDS 268 - Design Portfolio (4 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 294 or permission of instructor. (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 (3 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: INTDS 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 184. (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 programs and techniques. Prerequisite: INTDS 285. (SFCC)

INTDS 294 - Adobe for Interior Design (4 cr)
This course will introduce students to the basic skills and applications of Adobe PhotoShop and Adobe InDesign as they relate to the practice and profession of interior design. Students will gain knowledge about the graphic interface, basic design tools, and practical applications of the software in the field of interior design. Prerequisite: INTDS 285. (SFCC)

INTERPRETER TRAINING PROGRAM

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. Students must pass this course with a 2.0 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ITP 231 - Theories of Discourse Analysis (3 cr)
This course will apply linguistic theories to American Sign Language. Students will study the phonology, morphology, syntax and semantics and how they apply to and are used in ASL. Prerequisite: ASL& 221 with a grade of 2.0 or higher, or permission of instructor. Prerequisite: ASL& 123 with a grade of 2.0 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ITP 232 - ASL Linguistic Principles (2 cr)
This course will apply linguistic theories to American Sign Language. Students will study the phonology, morphology, syntax and semantics and how they apply to and are used in ASL. Prerequisite: ASL& 123 with a grade of 2.0 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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. ASL& 222 with a 2.5 or higher and ITP 231, 232 with a 2.5 or higher, or permission of instructor. Students must pass this course with a 2.0 or higher to obtain the ITP AAS-T or ITP Certificate. (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& 221 with a 2.5 or higher or permission of instructor. Students must pass this course with a 2.0 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ITP 245 - Ethics and Principles in Educational Interpreting (5 cr)
This course focuses on human rights, decision making models, ethical decision making and principles for interpreting in educational settings. Prerequisite: ASL& 223 with a 2.5 or higher or permission of instructor. Students must pass this course with a 2.0 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ITP 251 - Interpreting I (5 cr)
This course is designed to prepare the student with skills to receive information auditorily or visually and express that information in an equivalent message effectively, including affect, mood and inflection, using simultaneous interpreting methodologies. Prerequisite: ASL& 223 with a 2.5 or higher and ITP 231, 232 with a 2.5 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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 251 with a 2.5 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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 with a 2.5 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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-to-voice and voice-to-sign skills, increase vocabulary both expressively and receptively, and increase and improve grammar skills in consecutive transliterating. Prerequisite: ASL& 223 and ITP 231, 232 with 2.5 or higher, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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 sign-to-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 261 and 281 with a 2.5 or higher. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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 262 and 282 with a 2.5 or higher. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

ITP 271 - Educational Interpreter Seminar (2 cr)
This course is designed to provide an investigative study of the Educational Interpreter Performance Assessment (EIPA) written materials that will enhance and reinforce students understanding of the Content Knowledge Standards and other components within the EIPA written assessment materials. At the conclusion of instruction, the course will prepare students to take the EIPA national written assessment. Students will collect and organize the study materials and supplemental information for review, be able to compare and contrast the information presented, as well as learn test taking skills to better analyze the questions during the assessment. Prerequisite: Permission of instructor. (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-to-voice 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 with a 2.5 or higher and concurrent enrollment in ITP 261, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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: ITP 251, 261, and 281 with a 2.5 or higher, and concurrent enrollment in ITP 262, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (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, and 282 with a 2.5 or higher, and concurrent enrollment in ITP 263, or permission of instructor. Students must pass this course with a 2.5 or higher to obtain the ITP AAS-T or ITP Certificate. (SFCC)

INVASIVE CARDIOVASCULAR TECHNOLOGY

ICT 114 - Introduction to Cardiac Care (3 cr)
Introduction to the field of Cardiovascular Technology 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 nation's 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. (SCC)

ICT 127 - Cardiovascular Pharm 2/Intravenous Therapy (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/Intravenous Therapy (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 - Basic Life Support Instructor Course (2 cr)
This course develops the instructional and technical skills required by the American Heart Association to become a Basic Life Support Instructor and to become a member of the campus CPR club. 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 203 - Advanced Cardiac Life Support Course (2 cr)
This course develops the cognitive skills required for advanced cardiac life support required by the American Heart Association. Combined with another lab portion and mega code allows the student to hold an ACLS card. Prerequisite: Completion of previous quarter. (SCC)

ICT 204 - Advanced Cardiac Life Support Technical Skills Lab (1 cr)
This course develops the technical skills required by the American Heart Association, when combined with the lecture course to hold an ACLS card. Prerequisite: Completion of previous quarter. (SCC)

ICT 212 - Electrocardiography Lab (1 cr)
Introduction to the field of cardiovascular technology, basic cardiac anatomy, physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences will support these concepts and provide simulated clinical situations and effective performance on the modality. Prerequisite: Admission to program. (SCC)

ICT 213 - Electrocardiography (3 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)

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 - Interventional Radiology (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 219 - Cardiopulmonary Pathophysiology (1 cr)
This course describes the pathophysiology of pulmonary diseases, their diagnosis and treatment. Prerequisite: Completion of previous quarter. (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/Special Procedures/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. (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. (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. (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. (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. (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. (SFCC)

JOURNALISM

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. (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. (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. (SFCC)

JOURN 110 - Mass Media (5 cr)
Journalism 110 is an objective, thoughtful view of the mass media designed to help students better understand the impact these media have on our culture and professional lives. In addition to coverage of the traditional media (newspapers, television, radio, film, books), students will venture into emerging media (blogs, podcasts, independent audio documentary). Students will also examine how journalistic ethics, advertising, ownership, access, and the business of media influence modern cultural attitudes and perceptions of reality. (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: SFCC only-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. (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. (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. (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)

LIBRARY AND INFORMATION SERVICES

LMLIB 100 - Introduction to Library Organizations and Careers (5 cr)
Students are introduced to the historical, functional, and organizational structure of libraries. Current library services, philosophy, and terminology are emphasized. Students explore professional organizations and identify a pathway in library, archives or education. (SFCC)

LMLIB 115 - Library Organization and Collections (5 cr)
Students are introduced to contemporary best practice relating to collection development policies and procedures. This introduction to collection development includes: acquisitions, collection maintenance, and collection evaluation methods. The importance of collection classification and arrangement and the impact on access to materials is also examined. (SFCC)

LMLIB 116 - Circulation Systems and Access Services (5 cr)
This course introduces policies and procedures associated with circulation and access services best practice, including: resource sharing issues, patron confidentiality and data privacy policies and procedures, customer service best practice, and collection maintenance impacted by circulation services. Students utilize library circulation software to examine circulation procedures and issues. (SFCC)

LMLIB 117 - Library Outreach and Services for Diverse Communities (5 cr)
This course introduces library best practice for serving diverse communities and patron types. Students explore current library service guidelines relating to community constituencies, contemporary issues relating to library program delivery, and effective library community engagement strategies. (SFCC)

LMLIB 125 - School Libraries and Media Centers (5 cr)
This is an introductory course for students interested in school library and media centers materials and management. Students examine the role and function of school libraries in support of K-12 learning including: information literacy and education standards, reading programs and literacy support, collection management and collection development. (SFCC)

LMLIB 126 - Library Technology and Services for Educational Support (3 cr)
Students are introduced to the role of libraries and technology supporting educational organizations. Assistive technology, data confidentiality, digital literacy standards, and technology services and training relevant for library staff are explored. (SFCC)

LMLIB 135 - Children's Literature and Library Services (5 cr)
Children’s literature is examined in relation to use in preK-12 classrooms, school and public library services. Students review nonfiction resources and fiction genres in relation to developmentally appropriate guidelines, collection development policies, and contemporary issues relating to children’s and youth services and programing in libraries. (SFCC)

LMLIB 220 - Technical Services and Cataloging (5 cr)
This course introduces the function of technical services in providing access to library resources. Students examine current standards for creating bibliographic records and identify the value of cooperative cataloging standardization and metadata accuracy. Online tools for editing records, record sharing, authority control, classification, and training are utilized. (SFCC)

LMLIB 222 - Reference and Information Services (5 cr)
This course reviews the role of reference and reader’s advisory services in libraries. Students examine contemporary issues relating to delivery of reference services and utilize library databases and engage in information literacy skill building as part of the research process. (SFCC)

LMLIB 224 - Research Topics and Projects in Library Service (3 cr)
This course provides an opportunity for students to research an area of library services not covered in-depth in other courses. Students can examine the management of archives and special collections, including standards, policies, procedures and contemporary issues. Or, students can choose to focus on a different aspect of contemporary library operations in consultation with the instructor. (SFCC)

LMLIB 280 - Library Employment and Workplace Issues (3 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. Prerequisite: Permission of instructor/coordinator. (SFCC)

LMLIB 281 - Library Paraprofessional Practicum (1 cr)
Students are placed in a library, school, archives or other setting commensurate with their intended career goal. Integration of theory and practice is accomplished through a practicum project. Students complete an online or onsite practicum project. Permission of instructor required. (SFCC)

LMLIB 288 - Cooperative Education Work Experience (No Seminar) (1-3 cr)
For course description, see Cooperative Education. (SFCC)

LOGISTICS SPECIALIST APPRENTICESHIP

LOG 101 - Operations & Supply Chain Essentials. (5 cr)
In this course, students will explore concepts related to various functions within operations and supply chain management. They will develop an understanding of complex processes to be followed to bring a finished product to life for consumers. Students will explain how new demands, advancing technology, changing preferences, and unforeseen circumstances force companies to adapt to survive and create new products. Students will also gain foundational knowledge, including logistics and warehouse management principals, in a non-technical way to help them understand their work. (SCC)

LOG 102 - Advanced Communications (5 cr)
Apprentices are introduced to basic communication concepts relating to the workplace. Concepts include theory and skills practice related to interpersonal, intercultural, and production team communications, technical writing and business communications, phone and email etiquette, and conflict management. Students will create a professional portfolio that includes a resume, examples of skills, accomplishments, and samples of work. (SCC)

LOG 103 - LEAN & 6 Sigma Foundations (green belt) (5 cr)
In this course, students will be able to relate LEAN Six Sigma concepts to production objectives. They will identify waste within the value stream and demonstrate the ability to effectively analyze and present data to co-workers and stakeholders. They will define and apply team leadership tools to aid in process improvement. Students will collect and process customer or internal stakeholder input/requirements and identify key metrics for measuring success. Students will define the DMAIC process and effectively use tools and concepts associated with each phase of the DMAIC process. Finally, they'll employ Lean Six Sigma skills in process improvement projects (SCC)

LOG 104 - Inventory & Warehouse Management (5 cr)
In this course, students will describe types of inventory, and develop an understanding of the financial accounting of inventory. They will also learn where to locate inventory and ways to control its location. Students will explore the uses, advantages, and disadvantages of automated inventory systems such as bar codes and RFID. They will describe ways to manage inventory and explain causes of inventory system failures as well as ways to fix the problems. Students will also explore some of the basic risks of supply chain management as well as solutions to some common problems. Finally, students will explore the importance of warehouse safety by focusing on injury prevention and reporting, forklift safety, and ergonomics (SCC)

LOG 105 - Enterprise Resource Planning (ERP foundations) (5 cr)
In this course, students will describe types of inventory, and develop an understanding of the financial accounting of inventory. They will also learn where to locate inventory and ways to control its location. Students will explore the uses, advantages, and disadvantages of automated inventory systems such as bar codes and RFID. They will describe ways to manage inventory and explain causes of inventory system failures as well as ways to fix the problems. Students will also explore some of the basic risks of supply chain management as well as solutions to some common problems. Finally, students will explore the importance of warehouse safety by focusing on injury prevention and reporting, forklift safety, and ergonomics. (SCC)

MACHINIST/CNC TECHNOLOGY

MACH 108 - Lean Manufacturing (5 cr)
Students are In Introduced to the concepts of Lean Manufacturing In a machining /manufacturing environment. (SCC)

MACH 120 - Print Reading for CNC Operators (2 cr)
Students learn basic print reading with emphasis on accurate interpretation of sketches and tolerances. (SCC)

MACH 121 - Machine Theory for CNC Operators (2 cr)
Students will learn the components of machine tools, how to calculate rpms, and perform basic machining operations. (SCC)

MACH 122 - Inspection and Quality Control (2 cr)
Students will learn inspection practices using precision measuring tools. (SCC)

MACH 123 - Machining Lab 123 (6 cr)
Students learn how to safely operate saws, mills, and lathes to produce parts with precise specifications. (SCC)

MACH 130 - CNC Theory for Operators (2 cr)
Students learn the fundamentals of operating a CNC machine tool. (SCC)

MACH 131 - Industrial Safety and First Aid (2 cr)
Students learn how to safely work in an industrial environment. (SCC)

MACH 132 - CNC Operator Mathematics (2 cr)
Students learn the foundational algebraic and geometric principles in machining. (SCC)

MACH 133 - Machining Lab II (6 cr)
Students learn how to safely operate saws, mills, and lathes to produce parts with precise specifications. (SCC)

MACH 138 - Manufacturing Standards/Quality (3 cr)
Students will become aware of the manufacturing standards that are used in composites and aerospace manufacturing industries. Students will learn how to chart Statistical Process Control data and utilize that information to solve problems in the manufacturing process. Students will explore the Material Data Sheet system to understand safety precautions, handling methods and disposal requirements of materials used in the composites industry. In the lab portion of the class students will have an opportunity to apply this theory on practical exercises. Lab time will also be devoted to the use and understanding of Quality Inspection tools used in advanced part inspection. (SCC)

MACH 140 - Introductory Print Reading (2 cr)
Students learn basic blueprint reading with emphasis on the accurate interpretation of blueprints and sketches. (SCC)

MACH 141 - Machine Theory I (2 cr)
Students are introduced to shop safety, mechanical hardware, drilling machine, bandsaw machine and engine lathe theory. (SCC)

MACH 142 - Shop I (8-10 cr)
Students are introduced to 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, as well as basic operations on the Engine Lathe, drill press, and bandsaw. (SCC)

MACH 143 - Machine Tools (2 cr)
Students are introduced to the hand tools, measuring tools, equipment and processes common to a machine shop with emphasis on their proper selection and use. (SCC)

MACH 144 - IMT Blueprint 1 (1 cr)
Students are introduced to the concepts of manufacturing Blueprinting. (SCC)

MACH 145 - IMT Blueprint 2 (1 cr)
Students continue learning the concepts of manufacturing Blueprinting. (SCC)

MACH 146 - IMT Shop 1 (8 cr)
Students are introduced to the concepts of the machine shop, troubleshooting aspects and machining equipment. (SCC)

MACH 147 - IMT Shop 2 (8 cr)
Students continue to learn the concepts of the machine shop, troubleshooting aspects and machining equipment. (SCC)

MACH 150 - Intermediate Print Reading (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 140. (SCC)

MACH 151 - Machine Theory II (2 cr)
The theory of manual milling machines and the operations performed on these machines are introduced. Vertical bandsaw setup and operation is stressed as well as job planning. (SCC)

MACH 152 - Shop II (8-10 cr)
This course continues from MACH 142, diving deeper into the operation of the engine lathe and its uses. The vertical milling machine is introduced in this course and further instruction in the use of measuring tools and shop safety practices are stressed. (SCC)

MACH 153 - Shop Math (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, geometry to basic concepts of trigonometry. (SCC)

MACH 160 - Advanced Print Reading (2 cr)
This course continues with the concepts introduced in MACH 140 and 150. Practical experience in the interpretation and generation of special view drawings is emphasized. Prerequisite: MACH 140 and 150. (SCC)

MACH 161 - Machine Theory III (2 cr)
Precision grinding and horizontal machine theory are covered as well as intermediate lathe operations. (SCC)

MACH 162 - Shop III (8-10 cr)
This course continues with the concepts introduced in MACH 152 with application on the engine lathe and its attachments. Further milling machine techniques are emphasized. (SCC)

MACH 163 - Materials Science (2 cr)
Materials Science covers composition of standard steels, the AISI numbering system, basic metallurgy and an introduction to composite materials and their manufacturing processes. (SCC)

MACH 210 - Blueprint IV (2 cr)
This course presents theory and practical applications in the identification of structural shapes on blueprints. The generation of dimensioned working sketches of specific parts is emphasized. Prerequisite: MACH 160 or permission of instructor. (SCC)

MACH 211 - CNC Theory I (2 cr)
Students learn concepts required to accurately program and setup a CNC Milling Machine. Hand writing basic G & M Code programs using the manual method will be emphasized. Prerequisite: MACH 161 or permission of instructor. (SCC)

MACH 212 - Shop IV (8-10 cr)
Students work in the Machine shop environment gaining hands on experience programming, setting up, and operating CNC Mills. Prerequisite: MACH 162 or permission of instructor. (SCC)

MACH 213 - GD&T/Quality Control (2 cr)
This course is an introduction to the Geometric Dimensioning and Tolerancing Y14.5-2009 standard. Students will learn the symbols used and how to interpret them. Inspection methods and techniques required to meet the GD&T requirements will be emphasized. Prerequisite: MACH 160 or permission of instructor. (SCC)

MACH 220 - Blueprint V (2 cr)
This course continues to develop the students' ability to interpret mechanical drawings. Students will study more complex multi-scale and assembly drawings. Prerequisite: MACH 210 or permission of instructor. (SCC)

MACH 221 - CNC Theory II (2 cr)
Students learn concepts required to accurately program and setup a CNC Lathe. Hand writing basic G & M Code programs using the manual method will be emphasized. Prerequisite: MACH 211 or permission of instructor. (SCC)

MACH 222 - Shop V (10 cr)
Students work in the machine shop environment gaining hands on experience programming, setting up, and operating CNC Lathes. Prerequisite: MACH 212 or permission of instructor. (SCC)

MACH 223 - Quality Control (2 cr)
This course prepares students to demonstrate competency in areas of manufacturing including qualify control, part inspection, and precision measurements. Fundamentals of Statistical Process Control are emphasized. (SCC)

MACH 224 - CAD/CAM I (2 cr)
This course continues to develop the students' ability to interpret mechanical drawings. Students will study more complex multi-scale and assembly drawings. Prerequisite: MACH 210 or permission of instructor. (SCC)

MACH 230 - Blueprint VI (2 cr)
This course develops the students' ability to interpret advanced mechanical drawings. Complex assemblies and close tolerance parts with Geometric Dimensioning and Tolerance callouts will be examined. Prerequisite: MACH 220 or permission of instructor. (SCC)

MACH 231 - CNC Theory III (1 cr)
Students learn more advanced concepts required to accurately program and setup CNC mills and lathes. Multiple workstations and multiple axis programming will be emphasized. Prerequisite: MACH 221 or permission of instructor. (SCC)

MACH 232 - Shop VI (10 cr)
Students work in the machine shop environment gaining hands on experience programming, setting up and operating CNC mills and lathes. Prerequisite: MACH 222 or permission of instructor. (SCC)

MACH 233 - Manufacturing Economics (2 cr)
This course introduces the basic principles of the operation of a small manufacturing company. (SCC)

MACH 234 - CAD/CAM II (2 cr)
This course develops the students' ability to interpret advanced mechanical drawings. Complex assemblies and close tolerance parts with Geometric Dimensioning and Tolerance callouts will be examined. Prerequisite: MACH 224 or permission of instructor. (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 (5-7 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 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)

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. (SCC, SFCC)

MMGT 106 - How to Start a Small Business (5 cr)
Formerly SBM 101. 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. (SFCC)

MMGT 125 - Social Media Marketing (5 cr)
This course provides an introduction to social media marketing (SMM). Special emphasis is placed on creating a social media marketing plan which uses social media platforms to positively influence consumers toward a brand, product, or service. (SCC, SFCC)

MMGT 126 - Search Engine Marketing (5 cr)
Search Engine Marketing is the process of promoting a Web site through both search engine optimization and search advertising. This course examines ways to improve traffic to the Web site by improving the ranking in search engine results and paid advertising. (SFCC)

MMGT 128 - Social Media Marketing Campaign (5 cr)
Students will complete a social media marketing campaign for an organization. Students will identify the organization's target market and the social media portals where they participate; set measurable goals; design innovative strategies and select appropriate social media portals, craft compelling content to attract and influence the intended audience, monitor and measure progress on a regular basis, and tune the social media marketing campaign to account for the ever changing nature of consumer tastes and the social Web. (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)

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)

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)

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. (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. (SCC)

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)

MMGT 225 - Content, Social and Digital Marketing (5 cr)
In this course, students will explore the use of social media, digital media and content development to create platform strategies to connect with customers, increase sales and build brand. (SCC)

MMGT 230 - Market Research & Consumer Behavior (5 cr)
This course will cover the process of gathering, analyzing, and interpreting information to help a company or individual assess the viability of a product or service and make sound business decisions. We will also look at consumer behavior and study how customers and organizations use products and services. (SCC)

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 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 244 - Introduction to Lean Six Sigma (2.5 cr)
Introduces the fundamentals of Lean Six Sigma providing a comprehensive understanding of what it is, background on the improvement methodologies used in a Six Sigma Process, important details on the necessary supporting infrastructure and provides examples of Lean Six Sigma in manufacturing, the office, order entry, warehousing and distribution, sales and R&D. (SCC)

MMGT 250 - Professional Sales (5 cr)
Develop skills in business development; sales prospects and qualifying buyers; relationship building, product knowledge, and post sales service; public relations theories, strategies and campaigns. (SCC)

MMGT 256 - Lean Leadership (5 cr)
This course is designed for development of leaders to enable them to apply the best practices and top tools and techniques of Lean. Discover how Lean impacts profit, inventory, and quality to the customer. Learn the most common Lean tools and methods through this interactive class. (SCC)

MMGT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

MMGT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

MMGT 293 - Independent Study (5 cr)
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. (SCC)

MANAGEMENT INFORMATION SYSTEMS

MIS 211 - Information Technology In Business (5 cr)
This course provides the basic concepts of the use of information technology in business, both globally and locally, to collect, organize, distribute and present information in a business environment. Students will learn how to collect information from external sources, such as libraries and the Internet, and from internal functional areas. Productivity tools such as database, spreadsheets, word processor and presentation software will then be used to consolidate, organize, synthesize and present the external and internal information to business decision makers. (SCC, SFCC)

MATHEMATICS

MATH 21 - 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)

MATH 46 - Intermediate Algebra for Statistics (5 cr)
This class is designed to provide students proficiency with intermediate algebra and mathematical skills necessary for understanding statistical concepts and performing statistical processes. It incorporates resources or strategies that help students succeed in a statistics course. This course is combined (integrated) with Math&146 as the co-requisite model of Math046/Math&146. (SCC)

MATH 71 - Essentials of Algebra 1 (5 cr)
This class is the first algebra course in a two-quarter sequence supplying students with the necessary elementary algebra skills needed for STEM math courses. Topics include: scatterplots, modeling and linear regression, solving linear equations and inequalities, linear and quadratic functions and their graphs, applications, polynomials, factoring polynomials and an introduction to simplifying radical expressions. Prerequisite: ABE 68 with a 2.0 or better or appropriate placement score. (SCC)

MATH 72 - Essentials of Algebra 2 (5 cr)
This class is the second algebra course in a two-quarter sequence supplying students with the necessary Intermediate algebra skills needed for STEM and Business Majors. Topics include, but not limited to: simplifying and solving Quadratic, Exponential, Rational, Radical, and Absolute Value expressions and equations, graphing functions, inverse functions, modeling and creating regression equations, applications, and an introduction to logarithms. Prerequisite: MATH 71 with a 2.0, or appropriate placement score. (SCC)

MATH 87 - Algebra for Math Literacy I (5 cr)
This course is the first course in a two-quarter sequence leading to MATH& 107, MATH& 146, MATH 208 and PHIL&120. Topics include simplifying expressions, creating and interpreting scatterplots, percent change, ratios, rates, and proportions. Prerequisite: Successful completion of AE 48 or 58, or appropriate placement score. (SFCC, SCC)

MATH 88 - Algebra for Math Literacy II (5 cr)
This course is the second course in a two-quarter sequence leading to MATH& 107, MATH& 146, MATH 208, and PHIL& 120. Topics include algebraic models of linear, quadratic and exponential functions, equations of lines, systems of equations, direct and inverse variation, descriptive statistics. Prerequisite: MATH 87, 91, or 93 with a 2.0 or better within the last three years, or AE 68; or an appropriate placement score. (SFCC, SCC)

MATH 90 - Algebra for STEM (5 cr)
This course covers algebra skills, which include linear equations, quadratic equations, polynomial expressions, and graphs, as well as review topics that support this content. Prerequisite: MATH 87 or 93 with a grade of 2.0 or higher, or an appropriate placement score. (SFCC)

MATH 91 - 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: Successful completion of ABE 18 or appropriate placement score. (SCC)

MATH 92 - Elementary Algebra II (5 cr)
This course is a continuation of MATH 91. Topics include factoring, rational expressions, linear equations in two variables and systems of equations. Other topics may include radicals and quadratic equations. Prerequisite: MATH 91 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 96 - Introductory Algebra (5 cr)
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: Appropriate placement score. (SCC)

MATH 97 - 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 88 or MATH 91 and 92 or 96 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 98 - Algebra III (5 cr)
This course is a continuation of MATH 94 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 94 with a 2.0 or better or an appropriate placement score. (SCC)

MATH 99 - 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 92 or 96 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

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)

MATH& 107 - Math in Society (5 cr)
This course is a rigorous terminal mathematics course for students in the liberal arts. The course provides a solid foundation in the quantitative reasoning, symbolic reasoning, and critical thinking needed to be a productive member of society. The course core topics are proportional reasoning, the mathematics of personal finance, probability, descriptive statistics, and growth and decay models (linear and exponential). Prerequisite: MATH 72, 88, or 140 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 is a concentrated study of the topics traditionally found in College Algebra. The curriculum includes a quick and intense review of topics from Intermediate Algebra, including algebraic expressions, polynomials, equations, problem solving, complex numbers, radicals, and graphing. Additional topics include functions and solving radical equations and polynomial inequalities. Appropriate use of technology is incorporated. Prerequisite: MATH 72, 98 or 99 with a 2.0 or better within the last three years or appropriate placement scores. (SCC)

MATH 140 - College Algebra for STEM with Support (5 cr)
This course covers college algebra skills, which include polynomial, rational, exponential and logarithmic functions, expressions, and graphs, as well as review topics that support this content. Prerequisite: MATH 90, 94, or 98 with a grade of 2.0 or higher, or an appropriate placement score. Students earning a 3.0 or higher in MATH 98 should enroll in MATH& 141. (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: MATH 72 with a 3.0 or better within the last three years, or MATH 108 with a 2.0 or better within the last three years, or MATH 140 with a 2.5 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& 146 - Introduction to Stats (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 72, 88, or 140 with a 2.0 or better within the last three years, or appropriate placement score. (SFCC, SCC)

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& 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 72 or 140 with a 2.0 or better within the last three years, or appropriate placement score. (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 72, 88, or 140 with a 2.0 or better within the last 3 years, or appropriate placement score. (SFCC, SCC)

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. (SFCC, SCC)

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. (SFCC, SCC)

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 99 with a 2.0 or better in the last three years; or appropriate placement score. (SCC)

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 scores. (SCC)

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, SCC)

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, Stokes’ Theorem, Gauss’ Theorem, and Lagrange Multipliers. Prerequisite: MATH& 153 with a 2.0 or better. (SCC, 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 with a 2.0 or better. (SFCC, SCC)

MATH 300 - Mathematical Modeling for Applied Science (5 cr)
This course discusses mathematical modeling in an applied science setting. Topics include proportional reasoning, horizontal and vertical analysis, finance, probability and statistics. An emphasis is placed on how to apply these concepts to practical situations that occur in the applied sciences. Prerequisite: Applied BAS degree students only. MATH 88, 98, or 99 with a 2.0 or better within the last three years or an appropriate placement score. (SFCC)

MEATCUTTER APPRENTICESHIP

MEAT 101 - Introduction to Principles of Meatcutting (5 cr)
Introduction to the Meatcutting industry, product identification, size and weight. Introduction to holiday planning and cross merchandising. Safety and sanitation skills, and standards in the retail meat industry. Must be accepted into JATC Meatcutter Apprenticeship. (SCC)

MEAT 102 - Principles of Meatcutting II (5 cr)
Further exploration of beef, pork, and lamb. Meat rendering and by products, including methods and industry standards are discussed. Continuation of product merchandising, bone identification and breaking. Further exploration of cooking of meat products including flavor and tenderness. Must be accepted into the JATC Meatcutters Apprenticeship. (SCC)

MEAT 103 - Principles of Meatcutting III (5 cr)
This course continues bone identification in beef, pork, and lamb. Explore meatcutting techniques for both retail and wholesale markets. Course also includes customer safety, sanitation, and current health issues in the meat industry. Must be accepted to JATC Meatcutter Apprenticeship. (SCC)

MEAT 204 - Principles of Meatcutting IV (5 cr)
Focus of the course includes meat merchandising for profit, meat market math, and understanding profit and loss through meat cutting. Apprentices also learn an overview of the seafood industry, sausage making techniques, and complete meat cutting tests. Students learn about organization structure and chain of command in the workplace. Must be accepted to JATC Meatcutter Apprenticeship. (SCC)

MEAT 205 - Principles of Meatcutting V (5 cr)
The course focuses on management styles, leadership, ethics, diversity and leading people in the meat industry. Students will be introduced to leadership theory and discuss, evaluate, practice, and apply leadership concepts in the workplace. Student will work in teams to evaluate leadership theory and showcase their understanding of how it can positively impact the industry in which they work. Must be accepted to JATC Meatcutter Apprenticeship. (SCC)

MEAT 206 - Principles of Meatcutting VI (5 cr)
This course is an overview of the promotion of meat products from all aspects of the retail meat industry. This includes creativity, advertising, display, customer relations and product knowledge. In depth study of the food safety II exam, L&I process information, first aid training, and CPR Certification. Must be accepted to JATC Meatcutter Apprenticeship. (SCC)

MEDICAL ASSISTANT

MA 101 - Administrative Medical Assistant I (5 cr)
This lecture course will introduce students to the overall office environment, including telephone techniques, patient reception and appointment scheduling. Communication techniques and skills are heavily focused on as they relate not only to inner office professionalism yet also between the provider and patient. Prerequisite: Admission into the medical assistant program and CIS 110. (SCC)

MA 102 - Clinical Medical Assistant I (3 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: obtaining vital signs, dispose of biohazardous materials, creating, filing and storing the medical record, scheduling in-patient and out-patient procedures, legal and ethical boundaries, telephone techniques, third party guidelines, and HIPAA. Prerequisite: Admission into the medical assistant program and CIS 110. (SCC)

MA 107 - Basic Medical Assisting (3 cr)
This course is designed as an online/hybrid split, as it introduces students to the basic emergency medicine skills and knowledge necessary for entry-level medical assistants in the medical office environment. In addition, students will complete a mandatory 7 hour HIV/AIDS online training course and a 4 hour CPR/BLS provider course (instruction certified by INHS) provided in-person on the Spokane Community College campus. Prerequisite: HED 105. (SCC)

MA 111 - Administrative Medical Assistant II (3 cr)
This lecture course introduces students to the practices of office facilities, equipment and supplies, written communications, computer technology, patient billing, and collections as well as work through the Gartee MyLabs Electronic Health Record (EHR) simulation course with provided scenarios and assignments. Prerequisite: MA 101, 102. (SCC)

MA 112 - Clinical Medical Assistant II - A (3 cr)
This lecture course introduces the student to the medical assistant's role in assisting with physical examinations, preparing for procedures, and exams within fields such as pediatrics, geriatrics, urinary, and reproductive health as well as the clinical laboratory aspect of the medical office. Prerequisite: MA 101, 102. (SCC)

MA 113 - Clinical Medical Assistant II - B (2 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: documenting on growth charts, obtaining and performing CLIA waived testing, performing capillary puncture, maintaining medication and immunizations records, parenteral medications, childhood immunizations, and sterile techniques. (SCC)

MA 121 - Administrative Medical Assistant III (2 cr)
This laboratory course allows the student to successfully complete the psychomotor and effective components of the administrative functions of the medical assistant mainly focusing on billing and coding, insurance procedures, and communicating with third party representatives. While performing these administrative functions, the student will be observed for displaying sensitivity between medical providers, patients, and third party representatives. (SCC)

MA 122 - Clinical Medical Assistant III - A (2 cr)
This lecture course introduces the student to the medical assistant's role in assisting with minor/outpatient surgery, the study of phlebotomy, and hematology as well as an in-depth look at the fields of cardiology and pulmonology focusing on the tests and procedures that the student will practice and perform in the general medical office environment. Prerequisite: HED 108, 125, MA 111, 112. (SCC)

MA 123 - Clinical Medical Assistant III - B (3 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: measuring and recording pulse oximetry, completing laboratory requisitions, performing syringe, vacutainer, and butterfly venipuncture methods, performing an electrocardiograph, spirometry, and Erythrocyte Sedimentation Rate (ESR) testing. (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 HIM 120, MA 122. (SCC)

MA 126 - Introduction to Study of Disease (5 cr)
Formerly HED 126. 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: Accepted to Medical Assisting. (SCC)

MA 131 - Administrative Medical Assistant IV (3 cr)
This lecture course introduces the student to advanced administrative skills for the medical assistant's role in the medical office. Topics include banking and the practice of finances, medical office management, career opportunities, and professionalism in the workplace. Prerequisite: HED 109, MA 122. (SCC)

MA 132 - Clinical Medical Assistant IV - A (3 cr)
This lecture course introduces the student to several medical specialties, including in-depth education on Ear, Nose, and Throat (ENT) clinical care settings, nutrition, and mental health (Kubler-Ross and Maslow's theories). Prerequisite: HED 109, MA 122. (SCC)

MA 133 - Clinical Medical Assistant IV - B (2 cr)
This hands-on laboratory allows the student to perform laboratory assignments such as: administering eye and ear medications, irrigation of the eyes and ears, identifying dietary needs, and providing education for health maintenance and disease prevention. (SCC)

MA 141 - Medical Assistant Seminar (1 cr)
This course requires the student to participate in an online discussion board guided by the instructor with specific questions pertaining to each individual's clinical site experiences. Prerequisite: HED 109, MA 122, 131, 132. (SCC)

MA 142 - Medical Assistant Externship (6 cr)
This course requires students to participate in a 5-6 week or 198 hour SUPERVISED and UNPAID clinical externship experience. This experience allows students to utilize the technical skills acquired throughout the program and apply them in a medical facility working with physicians and patients. Prerequisite: HED 109, MA 122, 131, 132. (SCC)

MEDICAL OFFICE SPECIALIST

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: BT 105 and BT 106 with a 2.5 or higher. (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. Prerequisite: First quarter courses AND MSEC 108, must be completed with a 2.5 grade or higher prior to enrolling in this course. (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: First quarter courses must be completed with a 2.5 grade or higher, plus prior completion or concurrent enrollment in MSEC 108. (SCC)

MSEC 123 - Medical Office Coding (5 cr)
Medical diagnostic coding. Transformation of written and verbal descriptions of diseases, conditions, and injuries into alpha-numeric codes by applying guidelines, conventions, and instructional notes from the International Classification of Disease, 10th Revision, Clinical Modification (ICD-10-CM) coding manual. The guidelines will be applied by coding typical patent encounter diagnostic statements. This class prepares students for entry level diagnostic coding in a medical office, hospital, or clinic setting. Prerequisite: HED 104 with a 2.0 or better. (SCC)

MSEC 124 - Medical Office Insurance Billing (5 cr)
This course is designed to introduce the student to major nationwide and local medical insurance programs. Assists the student in understanding insurance terminology, different types of coverage, consents for release of information, assignment of benefits, referral and preauthorization, and correct completion of the CMS1500 and UB04 billing forms. Course work will include medical insurance requirements for billing, confidentiality, coding, and claims processing. Students also experience different medical reimbursement methodologies, learn how to read an EOB/remittance advice, write an appropriate appeal letter, and compute coinsurance amounts. (SCC)

MSEC 125 - Introduction to Medical Practice Management System (4 cr)
The focus of this class is to introduce the student to medical office procedures using a computerized medical office management system. An interactive approach will familiarize the student with computerized account management and help develop confidence and the necessary skills to become successful users of medical account management software. Students enter patient demographic information, charges and payments into a computerized medical software system. CMS1500 billing forms are produced as well as patient statements. Daily and monthly financial reports for medical practice are also covered. Prerequisite: BUS 103 with a 2.5 or higher. (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 134 - Speech Recognition/Editing (5 cr)
This class will explore the difference between front-end and back-end speech recognition editing as well as productivity and quality issues. This will also include the role of SR technology in the medical record and the implications of SR technology on the future of the medical transcription industry. Prerequisite: MSEC 131. (SCC)

MSEC 221 - Clinical Coding (5 cr)
This course covers complex coding and auditing scenarios for physician practices. Students will learn to audit Evaluation and Management services and abstract information from Operative Reports for proper coding. Assignment of appropriate diagnosis codes, and HCPCS codes for medical supplies is also covered. Prerequisite: MSEC 223 with a 2.5 or better. (SCC)

MSEC 223 - Medical Office Coding II (5 cr)
Medical procedural coding. A lecture class, MSEC 223 will provide knowledge of coding rules for the Current Procedural Terminology (CPT) manual, and a more in-depth knowledge and practical application using the International Classification of Diseases, Clinical Modification 10th revision (ICD-10-CM) diagnostic coding system. These rules will be applied by coding typical patient encounters. The students will code using "real life" documents such as History and Physicals, Chart Notes, Consultation Reports, Operative Reports, etc. Prerequisite: MSEC 123 with a 2.5 or better. (SCC)

MSEC 225 - Certified Professional Coder (CPC) Exam Preparation (5 cr)
This course prepares students for the Certified Professional Coder exam by the American Academy of Professional Coders (AAPC). The course includes a review of anatomy and terminology, ICD-10-CM coding, HCPCS coding, Evaluation and Management coding, use of modifiers, CPT® coding review for each subsection in the surgery section of CPT®, as well as anesthesia, radiology, and pathology/laboratory coding. Successful testing techniques, as well as practice exams are included in the course. Prerequisite: MSEC 221 with a 2.5 or better. (SCC)

MSEC 240 - Healthcare Documentation/Transcription (5 cr)
Introductory transcription course designed to provide students with a basic working knowledge of transcription through various types of medical reports, as well as reinforce medical documentation practices, including HIPAA and other legal aspects of medical records. The course also reviews and reinforces the use of medical language (terminology, abbreviations, acronyms, etc.), as well as proper English grammar, spelling, and punctuation practices in medical documentation. Prerequisite: Typing speed of 40 wpm with 4 or fewer errors. Successful completion of BT 105, 106, 196, HED 104, 105, and MSEC 108. (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 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 (3 cr)
Students observe and apply classroom skills in a Spokane area health care provider office environment for a minimum of 99 hours. Prerequisite: Medical Billing and Coding students. (SCC)

MSEC 287 - Medical Specialist Internship (3 cr)
Students observe and apply classroom skills in a Spokane area health care provider office environment for a minimum of 99 hours. Prerequisite: Medical Office Specialist students currently enrolled in their final quarter. (SCC)

MUSIC

MUSC 100 - Music Fundamentals (5 cr)
The course studies the basics of music, including notation, rhythm, melody, harmony, scales, keys and key signatures, and emphasizes these concepts through the piano keyboard. No prior knowledge of music is necessary. (SFCC)

MUSC& 105 - Music Appreciation (5 cr)
This course explores a wide variety of styles and idioms in music that may include western classical music, American folk, popular and religious music, along with samplings of non-western cultures. Social, cultural, and historical contexts of musical works are delved into along with their performance styles, common forms, and approaches to entertainment. Listening skills are also enhanced through a variety of musical examples to better appreciate all that music can offer. (SCC, SFCC)

MUSC 106 - History of Popular Music (5 cr)
The history of American popular music from 1900 to the present. The course examines pre-20th century influences and traces the development of jazz, blues, the swing era, rhythm and blues, rock and roll, country, the British Invasion, funk, electronic, 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 (1 cr)
Improvisation I is open to any student who plays a musical instrument or sings and wants to acquire the basic improvisational skills for standard jazz repertoire. The class is a requirement for music students who want to perform in jazz combo and/or seeking an AFA degree Music with an emphasis in Jazz studies. The course runs concurrent with Jazz combos. Prerequisite: AUDIO 116 or MUSC 100 or MUSC& 141. (SFCC)

MUSC 112 - Improvisation II (1 cr)
Improvisation II is open to any student who plays a musical instrument or sings and wants to acquire intermediate improvisational skills for standard jazz repertoire. The class is a requirement for music students who want to perform in jazz combo and/or seeking an AFA degree in music with an emphasis in Jazz studies. The course runs concurrent with Jazz combos. Prerequisite: MUSC 111 or permission of instructor. (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: MUSC 100 or MUSC& 141 or AUDIO 116 (SFCC)

MUSC 115 - Symphony Orchestra (1-3 cr)
Symphony orchestra is a large ensemble that includes students and community musicians. The ensemble comprises strings, woodwinds, brass, and percussion. The orchestra performs a wide range of repertoire from standard orchestral works to movie soundtrack arrangements. Previous orchestral experience is not required; however, a minimum of intermediate proficiency on the instrument is necessary. This course may be repeated to a maximum of 9 credits. (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. (SFCC, SCC)

MUSC 127 - Chamber Singers (1-3 cr)
The large ensemble flagship of choirs offers auditioned singers a challenging repertoire across a wide variety of historic and contemporary choral styles. Appropriately, this ensemble has the most rehearsal hours a week and does all of the off-campus and touring performances. This course may be repeated to a maximum of 9 credits. Prerequisite: Permission of instructor. (SFCC)

MUSC 128 - Vocal Jazz Ensemble (2 cr)
A small auditioned ensemble that performs jazz standards and other songs using complex harmonies in the vocal jazz idiom. This course may be taken up to three times. Permission of instructor. (SFCC)

MUSC 134 - Small Ensemble (1 cr)
A small ensemble that emphasizes a variety of musical styles in jazz tradition and contemporary styles, focusing on lead sheets to create arrangements of tunes, improvising backgrounds for solos and melodies, and solos over chord progressions. Players of varying instrument types and skill levels, including vocalists, are welcome to participate. This course may be taken up to three times. (SFCC)

MUSC 135 - World Drumming (1 cr)
World drumming small ensemble provides all instrumentation and explores rhythms selected from West Africa, Brazil, and the Caribbean using instruments indigenous to those cultures. This course may be taken for credit up to three times. (SFCC)

MUSC 139 - Bass Clef Choir (1-2 cr)
This large ensemble is intended for low-range voices, traditionally the tenor and bass ranges, and singers of all abilities. The ensemble performs choral literature across the range of history, including classics of choral music and folk songs, as well as modern popular song. This course may be repeated to a maximum of 9 credits. (SFCC)

MUSC 140 - Treble Choir (1-2 cr)
This large ensemble is intended for high-range voices, traditionally the soprano and alto ranges, and singers of all abilities. The ensemble performs choral literature across the range of history, including classics of choral music and folk songs, as well as modern popular song. This course may be repeated to a maximum of 9 credits. (SFCC)

MUSC& 141 - Music Theory I (5 cr)
This course introduces students to the basic elements of music, including pitch, rhythm, and harmony. Topics include music notation, major and minor scales, key signatures, intervals, triads, seventh chords, meter, time signatures, Roman numeral labels, and lead-sheet symbols. Students also acquire basic aural skills through daily exercises of singing, rhythm reading, and harmonic and melodic dictation. Prior musical experience on an instrument or voice is not necessary but recommended. (SFCC)

MUSC& 142 - Music Theory II (5 cr)
This course focuses on the grammar of tonal music, with particular attention given to tonal chord progressions and how to part write root-position, first-inversion, and second-inversion triads. The course also studies the various types of musical cadences, non-chord tones, and basic formal structures such as phrases and periods. Students learn to sing in the minor mode and how to read rhythms in compound meter. Prerequisite: MUSC& 141. (SFCC)

MUSC& 143 - Music Theory III (5 cr)
This course continues the study of the grammar of tonal music. Students learn how to part-write seventh chords and are introduced to chromatic harmony (secondary function chords), modulation, and binary and ternary forms. Singing, rhythmic, and listening skills reinforce the harmonic vocabulary studied in class, and introduce both new types of compound meters and the use of triplets in simple meter. Prerequisite: MUSC& 142. (SFCC)

MUSC 145 - Concert Band (1-3 cr)
Concert band is a large ensemble that includes students and community musicians. Performing movie themes, marches, and classical music, concert band plays works from a variety of classic band composers. The ensemble includes mostly wind instruments like trumpet, trombone, flute, saxophone, clarinet, oboe, but also adds instruments like piano, drums, percussion, and even bass when needed. This course may be repeated to a maximum of 9 credits. (SFCC)

MUSC 148 - Jazz Big Band (1-3 cr)
Jazz Big Band performs swing, rock, funk, and fusion works written for this ensemble. With trumpets, trombones, saxophones, guitar, bass, drums and piano, the group performs regularly with guest artists from around the country. This course may be taken for credit up to three times. This course may be repeated to a maximum of 9 credits. (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 MUSC 176 (SFCC)

MUSC 170 - Singing I: The Voice (1 cr)
Students will find their voice and learn the basic techniques of posture, breathing and mouth shape/space to take their singing to the next level through lecture, participation, observation, and performance in a class setting. (SFCC)

MUSC 171 - Singing II: How It Works (1 cr)
Students learn the working physiology of the voice through lecture, participation, and observation and apply this knowledge to their vocal performance in a class setting. Prerequisite: MUSC 170. (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 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 210 - Improvisation III (1 cr)
Improvisation III is open to any student who plays a musical instrument or sings and wants to acquire advanced improvisational skills for standard jazz repertoire. The class is a requirement for music students who want to perform in jazz combo and/or seeking an AFA degree in music with an emphasis in Jazz studies. The course runs concurrent with Jazz combos. Prerequisite: MUSC 112 or permission of instructor. (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 or MUSC& 142. (SFCC)

MUSC 215 - Symphony Orchestra (1-3 cr)
Symphony orchestra is a large ensemble that includes students and community musicians. The ensemble comprises strings, woodwinds, brass, and percussion. The orchestra performs a wide range of repertoire from standard orchestral works to movie soundtrack arrangements. In the second year, students will take more of a leadership role. This course may be repeated to a maximum of 9 credits. Prerequisite: MUSC 115 or permission of instructor. (SFCC)

MUSC 227 - Chamber Singers (1-3 cr)
The large ensemble flagship of choirs offers auditioned singers a challenging repertoire across a wide variety of historic and contemporary choral styles. Appropriately, this ensemble has the most rehearsal hours a week and does all of the off-campus and touring performances. In the second year, students will take more of a leadership role. This course may be repeated to a maximum of 9 credits. Prerequisite: MUSC 127 or permission of instructor. (SFCC)

MUSC 228 - Vocal Jazz Ensemble (2 cr)
A small auditioned ensemble that performs jazz standards and other songs using complex harmonies in the vocal jazz idiom. In the second year, students will take more of a leadership role. This course may be taken up to three times. Prerequisite: MUSC 128 or permission of instructor. (SFCC)

MUSC 234 - Small Ensemble (1 cr)
A small ensemble that emphasizes a variety of musical styles in jazz tradition and contemporary styles, focusing on lead sheets to create arrangements of tunes, improvising backgrounds for solos and melodies, and solos over chord progressions. Players of varying instrument types with intermediate skill levels, including vocalists, are welcome to participate. In the second year, students will take more of a leadership role. This course may be taken up to three times. Prerequisite: MUSC 134 or permission of instructor. (SFCC)

MUSC 235 - World Drumming (1 cr)
World drumming small ensemble provides all instrumentation and explores rhythms selected from West Africa, Brazil, and the Caribbean using instruments indigenous to those cultures. In the second year, students will take more of a leadership role. This course may be taken for credit up to three times. Prerequisite: MUSC 135 or permission of instructor. (SFCC)

MUSC 239 - Bass Clef Choir (1-2 cr)
This large ensemble is intended for low-range voices, traditionally the tenor and bass ranges, and singers of all abilities. The ensemble performs choral literature across the range of history, including classics of choral music and folk songs, as well as modern popular song. In the second year, students will take more of a leadership role. This course may be repeated to a maximum of 9 credits. Prerequisite: MUSC 139 or permission of instructor. (SFCC)

MUSC 240 - Treble Choir (1-2 cr)
This large ensemble is intended for high-range voices, traditionally the soprano and alto ranges, and singers of all abilities. The ensemble performs choral literature across the range of history, including classics of choral music and folk songs, as well as modern popular song. In the second year, students will take more of a leadership role. This course may be repeated to a maximum of 9 credits. Prerequisite: MUSC 140 or permission of instructor. (SFCC)

MUSC& 241 - Music Theory IV (5 cr)
This course reviews the use of basic chromatic harmony (secondary function chords) and modulation, and then introduces students to new chromatic chords (modal mixture, Neapolitan, and augmented-sixth) and other modulatory techniques. Students also study tonal counterpoint through contrapuntal exercises and the analysis of Inventions and fugues. Aural skills exercises reinforce the new harmonic concepts from the text; rhythm exercises introduce meters that use half-note, dotted half-note, eighth-note, and dotted eighth-note beat. Prerequisite: MUSC& 143 or permission of instructor. (SFCC)

MUSC& 242 - Music Theory V (5 cr)
This course reviews the new harmonic vocabulary introduced in the previous course and then delves into advanced tonal harmonic vocabulary and procedures typical of the late 19th century, such as enharmonic modulation, altered dominant chords, substitute-sixth chords, and common-tone diminished seventh chords. Students also study sonata form and its derivatives, as well as rondo and sonata-rondo forms. Aural skills exercises reinforce the new harmonic concepts/procedures from the text, and rhythm exercises introduce changing simple and compound meters, as well as changing between simple and compound meters. Prerequisite: MUSC& 241. (SFCC)

MUSC& 243 - Music Theory VI (5 cr)
This final course in the music theory sequence focuses on three areas: 1) a review of the advanced harmonic vocabulary and techniques of the 19th century; 2) an introduction to post-tonal music and its harmonic vocabulary, including modal, pentatonic, and synthetic scales; and 3) an introduction to atonal analysis (aka 'set theory'), including 12-tone composition. The course ends with a look at musical trends since WWII. Aural skills exercises emphasize advanced tonal vocabulary, and rhythm exercises introduce asymmetrical meters and metric modulation. Prerequisite: MUSC& 242. (SFCC)

MUSC 245 - Concert Band (1-3 cr)
Concert band is a large ensemble that includes students and community musicians. Performing movie themes, marches, and classical music, concert band plays works from a variety of classic band composers. The ensemble includes mostly wind instruments like trumpet, trombone, flute, saxophone, clarinet, oboe, but also adds instruments like piano, drums, percussion, and even bass when needed. In the second year, students will take more of a leadership role. This course may be repeated to a maximum of 9 credits. Prerequisite: MUSC 145 or permission of instructor. (SFCC)

MUSC 248 - Jazz Big Band (1-3 cr)
Jazz Big Band performs swing, rock, funk, and fusion works written for this ensemble. With trumpets, trombones, saxophones, guitar, bass, drums and piano, the group performs regularly with guest artists from around the country. In the second year, students will take more of a leadership role. This course may be repeated to a maximum of 9 credits. Prerequisite: MUSC 148 or permission of instructor. (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)

MUSIC PRIVATE LESSONS

MUSPL 101 - Preparatory Private Lessons 1 - Foundation (1 cr)
Preparatory lessons prepare students for entry into college level private music lessons, developing fundamental skills and responsibilities on their chosen instrument. Requirements: permission code from the instructor. (SFCC)

MUSPL 102 - Preparatory Private Lessons 2 - Intermediate/Advancing (1 cr)
Preparatory lessons further prepare students for entry into college level private music lessons by continuing development of fundamental skills on their chosen instrument. Requirements: MUSPL 101 and a permission code from the instructor. (SFCC)

MUSPL 103 - Preparatory Private Lessons 3 - Advanced (1 cr)
Preparatory lessons prepare students for entry into college level private music lessons, focusing on refining their skills and making a smooth transition into the literature and expectations of college-level individual lessons. Requirements: MUSPL 102 and a permission code from the instructor. (SFCC)

MUSPL 104 - Private Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 105 - Private Bass Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 106 - Private Bassoon Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 107 - Private Cello Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 108 - Private Clarinet Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 109 - Private Composition Lessons (1 cr)
Private composition lessons allow students the opportunity to create their own music. Students learn to write melodies and chord progressions and learn how to orchestrate, notate, and arrange their musical ideas. Lessons explore different musical genres and styles and strategies to utilize their musical traits. Students need to complete an original composition or arrangement by the end of the quarter. Requirements: prior instrumental or vocal performance experience and a permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 110 - Private Flute Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 111 - Private French Horn Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 112 - Private Acoustic/Classical Guitar Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 113 - Private Jazz Bass Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 114 - Private Electric/Jazz Guitar Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 115 - Private Jazz Piano Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 116 - Private Jazz Voice Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 117 - Private Oboe Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 118 - Private Percussion Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 119 - Private Piano Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 120 - Private Saxophone Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 121 - Private Trombone Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 122 - Private Trumpet Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 123 - Private Tuba Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 124 - Private Viola Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 125 - Private Violin Lessons (1 cr)
Private lessons develop the student's facilities on their chosen instrument. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 126 - Private Voice Lessons (1 cr)
Private lessons develop the student's facilities with their singing voice. They prepare students for transfer to a college or university music program. Students develop technical agility and learn to master literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 204 - Private Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 205 - Private Bass Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 206 - Private Bassoon Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 207 - Private Cello Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 208 - Private Clarinet Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 209 - Private Composition Lessons (1 cr)
200-level private composition lessons build on a student's knowledge of composition to create more complex music. Students learn advanced orchestration and arranging techniques as well as complex harmonies and chords. The lessons continue to explore new musical genres and styles. Students need to complete an original composition or arrangement by the end of the quarter to create a portfolio used for transfer to a college or university music program. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 210 - Private Flute Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 211 - Private French Horn Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 212 - Private Acoustic/Classical Guitar Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 213 - Private Jazz Bass Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 214 - Private Electric/Jazz Guitar Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 215 - Private Jazz Piano Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 216 - Private Jazz Voice Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 217 - Private Oboe Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 218 - Private Percussion Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 219 - Private Piano Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 220 - Private Saxophone Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 221 - Private Trombone Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 222 - Private Trumpet Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 223 - Private Tuba Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 224 - Private Viola Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 225 - Private Violin Lessons (1 cr)
200-level private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 226 - Private Voice Lessons (1 cr)
200-level private lessons further develop the student's facilities with their singing voice and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 260 - Advanced Private Lessons (2 cr)
For advanced students seeking additional instruction, 2-credit private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 261 - Advanced Private Piano Lessons (2 cr)
For advanced students seeking additional instruction, 2-credit private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 262 - Advanced Private Guitar Lessons (2 cr)
For advanced students seeking additional instruction, 2-credit private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 263 - Advanced Private Voice Lessons (2 cr)
For advanced students seeking additional instruction, 2-credit private lessons further develop the student's facilities with their singing voice and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 264 - Advanced Private Violin Lessons (2 cr)
For advanced students seeking additional instruction, 2-credit private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

MUSPL 265 - Advanced Private Viola Lessons (2 cr)
For advanced students seeking additional instruction, 2-credit private lessons further develop the student's facilities on their chosen instrument and assist them in preparing for auditions to a college or university music program. Students refine technical artistry and master the literature they are expected to perform. Students will need to demonstrate their skills by the end of the quarter. Requirements: permission code from the instructor. Course may be taken up to three times. (SFCC)

NATURAL RESOURCE MANAGEMENT

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 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 - Field Projects in Natural Resources (3 cr)
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 133 - Field Projects in Natural Resources (3 cr)
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 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 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 221 - Applications in Geographic Information Systems (4 cr)
This course builds on the basic cartographic skills developed in ENVS 220. Students work independently to problem solve within the framework of ESRI's ArcGIS suite of software. The course focuses on the professional application of geoprocessing tools to the analysis of raster and vector data and the integration of spatial data collected via GPS. Collaboration within a database, the effective management of metadata, and sharing data are emphasized. Prerequisite: ENVS 220 or permission of instructor. (SCC)

NATRS 225 - Natural Resources Occupational Experience I (1 cr)
Students learn about career opportunities in the field of natural resources: salaries, job duties, employing agencies in the public and private sectors and complete specific employment applications, resumes and letters of inquiry, and employment portfolios. Students learn and practice time management and study skills. Students are prepared for safe lab and field operations. (SCC)

NATRS 226 - Natural Resources Occupational Experience II (2 cr)
Students learn basic outdoor ethics and safety including the principles of "leave No Trace" and sanitary water and food preparation. Students learn basic first-aid awareness and cold and heat safety for employment and field labs. Students earn their Washington State boater's safety card and ATV safety card. (SCC)

NATRS 227 - Natural Resources Occupational Experience III (2 cr)
Students provide a journal and documentation supporting their 400-hour professional work experience. Students complete a professional written report evaluating their employment. Students create and present a professional presentation to first-year students outlining their experience. (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, 122, 204 or permission of instructor. (SCC)

NATRS 231 - Field Projects in Natural Resources (3 cr)
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 232 - Field Projects in Natural Resources (3 cr)
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 233 - Field Projects in Natural Resources (3 cr)
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)

NURSING

NURS 101 - Foundational Principles in Nursing (3 cr)
This course introduces the foundation of nursing principles. Students will be introduced to the nursing concepts of critical thinking, safety, time management, and communication as they relate to patient assessment and patient care. This course is a concept based course specifically focusing on nursing process, caring, assessment, and accountability. Prerequisite: Acceptance into the nursing program. (SCC)

NURS 102 - Application of Foundational Principles in Nursing (5 cr)
This course applies the knowledge from NURS 101 to the clinical practice. Students will apply the nursing concepts of critical thinking safety, time management and communication as they relate to patient assessment and patient care. This course is a concept based course specifically applying the nursing process, caring, assessment and accountability to patient care settings. This course will include laboratory and clinical application of nursing concepts. Grading option: Pass/fail. Prerequisite: Acceptance into the nursing program. (SCC)

NURS 104 - Nursing Care of Patients Across the Lifespan (3 cr)
This course builds from the knowledge from NURS 101, 102, and NUTRI 251. Students will continue to associate the nursing concepts of critical thinking, safety, time management and communication as they relate to patient care across the lifespan. This course focuses on the care of the patient from pediatrics to geriatrics. This course is a concept based course specifically identifying and discussing the concepts of health, wellness, and illness; teaching and learning; growth and development; mobility; comfort; grief and loss; sleep and rest; cellular regulation; metabolism; infection; and oxygenation. Prerequisite: Completion of the previous quarter. (SCC)

NURS 105 - Application of Nursing Care of Patients Across the Lifespan (5 cr)
This course builds from the knowledge from NURS 101,102, and NUTRI 251. Students will apply the nursing concepts of critical thinking, safety, time management and communication as they relate to patient care across the lifespan. This course focuses on the well patient from pediatrics to geriatrics. This course is a concept based course specifically applying the concepts health, wellness, and illness; teaching and learning; growth and development; mobility; comfort; grief and loss; sleep and rest; cellular regulation; metabolism; infection; and oxygenation in the clinical setting as they related to patient care across the lifespan. This course will include laboratory and clinical application of nursing concepts and pediatric outpatient clinical experiences. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 106 - PSYC 106/Psychosocial Issues in Healthcare I (2 cr)
In this course, students will begin to examine the determinants of health and illness to include social, psychosocial, environmental, spiritual and cultural dimensions across the lifespan and within the context of health care. Prerequisite: Completion of the previous quarter. (SCC)

NURS 108 - Nursing Assistant Certified Theory (5 cr)
This course prepares the student to provide direct patient care in hospitals, nursing homes, convalescent centers and home health care settings. The Nursing Assistant Certified has direct contact with the patients and residents in these settings in the process of providing care for their basic daily needs. It teaches about the care of patients in a variety of health care settings. Students learn in the classroom setting and also in the concurrent course N109 in the skills and clinical setting as well. Students learn to recognize the patient's physical, social and emotional needs and to care for these patients and meet their needs in a caring manner. (SCC)

NURS 109 - Nursing Assistant Skills Lab and Clinical (4 cr)
This course prepares the student to provide direct patient care in hospitals, nursing homes, convalescent centers, and home health care settings. The Nursing Assistant Certified has direct contact with the patients and residents in these settings in the process of providing care for their basic daily needs. It teaches about the care of patients in a variety of health care settings. Students learn in the skills lab setting and in the clinical site as well as in the Concurrent classroom course NURS108. Students learn to recognize the patient's physical, social, and emotional needs and to care for these patients and meet their needs in a caring manner. (SCC)

NURS 110 - Pharmacology in Nursing Practice (2 cr)
This course introduces the students to the foundational principles of pharmacotherapy. The course includes pharmacokinetics, pharmacodynamics, pharmacotherapeutics, and safe administration. The concepts of safety, communication, critical thinking and time management are introduced as they apply to medication administration. Prerequisite: Completion of the previous quarter. (SCC)

NURS 113 - PSYC 113/Psychosocial Issues in Healthcare II (3 cr)
This course is a continuation of NURS 106, where students will continue to examine the determinants of health and illness including social, psychological, environmental, spiritual and cultural dimensions across the lifespan and within the context of healthcare. Prerequisite: Completion of the previous quarter. (SCC)

NURS 133 - Care of the Developing Family (3 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to build the nursing concepts of critical thinking, safety, time management and communication as they relate to childbearing women and their families. This course is a concept based course specifically focusing the concepts of assessment and caring as they apply to maternal and perinatal health. Prerequisite: Completion of the previous quarter. (SCC)

NURS 134 - Application of Care of the Developing Family (2 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to build their knowledge and understanding of the nursing concepts of critical thinking, safety, time management, and communication as they relate to childbearing women and their families. This course is a concept based course specifically applying the concepts of assessment and caring to patient in a maternity/newborn acute care setting, by demonstrating assessment and care of newborn and postpartum maternal patients in the hospital environment. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 138 - Care of the Mental Health Patient (3 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the mental health of patients across the lifespan. This course is a concept based course specifically interpreting and examining the concepts and how the concepts related to the assessment and care of, and therapeutic communication with, the patient in a variety of mental health settings. This includes demonstration of mental health status examination. Prerequisite: Completion of the previous quarter. (SCC)

NURS 139 - Application of Care of the Mental Health Patient (2 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the mental health of patients across the lifespan. This course is a concept based course specifically applying the concepts of therapeutic communication, assessment and caring to patient in a variety of mental health clinical settings. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 181 - Nursing Care of the Acute Patient (4 cr)
This course builds from the knowledge from NURS 101, 102, 104, and 105. Students will continue to interpret and discuss the nursing concepts of critical thinking, safety, time management and communication as they relate to patients with acute health problems. This course is a concept based course specifically exploring the concepts of clinical decision making, collaboration, evidenced based practice, fluid & electrolytes, oxygenation, perfusion, elimination, cognition, metabolism, nursing management, and acid base balance. Prerequisite: Completion of the previous quarter. (SCC)

NURS 182 - Application of Nursing Care of the Acute Patient (5 cr)
This course builds from the knowledge from NURS 101,102,104,105. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to patients with acute health problems. This course is a concept based course specifically applying the concepts of clinical decision making, collaboration, evidenced based practice, fluid & electrolytes, oxygenation, perfusion, and acid based balance in the clinical setting. This course will include laboratory and clinical application and demonstration of nursing concepts. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 202 - PHIL 202/Ethics and Policy in Healthcare I (3 cr)
This course introduces ethical principles that shape the practice of healthcare professionals and are used to develop healthcare policies. This course is a concept based course introducing ethics, legal issues and health policy to nursing practice. Prerequisite: Completion of the previous quarter. (SCC)

NURS 205 - Nursing Care of the Critically Ill Patient (5 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the critically ill patient. This course integrates and builds on the concepts of oxygenation, perfusion, acid-base balance, immunity, infection and tissue integrity as it relates to the care of critically ill patients in the acute care setting. Prerequisite: Completion of the previous quarter. (SCC)

NURS 206 - Application of Nursing Care of the Critically Ill Patient (6 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the critically ill patient. This course advances the application of the concepts of oxygenation, perfusion, acid-base balance, immunity, infection and tissue integrity as it applies to critically ill patients in the acute care setting. This course will include laboratory and clinical application of stated nursing concepts. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 207 - PHIL 207/Ethics and Policy in Healthcare II (2 cr)
This course builds from the content introduced in NURS 202. Students apply the ethical principles that are used to develop and implement healthcare policies in a variety of healthcare settings. Prerequisite: Completion of the previous quarter. (SCC)

NURS 208 - Capstone Experience in Nursing (6 cr)
This course is the culmination of all previous nursing quarters into a capstone experience. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to patients in multiple care settings. This course applies the concepts of accountability, collaboration, comfort and technical skills in a capstone experience. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 209 - Leadership Principles in Nursing Care (4 cr)
This course prepares the student for transition to professional practice. Students evaluate key leadership principles and strategies to prepare for licensure. Students integrate and evaluate concepts of accountability and collaboration as they transition to a Registered Nurse. Prerequisite: Completion of the previous quarter. (SCC)

NURS 210 - Simulation in Nursing Practices (2 cr)
This course synthesizes nursing concepts, introduced across the nursing program, in a simulated clinical environment. Students collaborate with interdisciplinary partners to prepare for practice as a Registered Nurse. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NUTRITION

NUTR& 101 - Nutrition (5 cr)
Study of human nutrition and health. Topics include digestion, absorption and processing nutrients in the body; chemistry and functions of the major nutrients: carbohydrates, fat, protein; vitamin and mineral functions; food, culture and diet, energy balance, diet and metabolism; fitness and health; nutrition of the life cycle, food safety and local and world hunger issues. Credit will not be granted for both NUTR& 101 and NUTR 251. (SCC, SFCC)

NUTR 251 - Nutrition in Healthcare (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. Credit will not be granted for both NUTR 251 and NUTR& 101. Prerequisite: BIOL& 242 or permission of instructor. (SCC, SFCC)

OCCUPATIONAL THERAPY ASSISTANT

OTA 101 - Foundation of Occupational Therapy (3 cr)
An overview of the profession of occupational therapy. Includes the history of the profession, professional standards and organizations, ethics standards, working definitions and role delineations between OT and OTA, and between OT and other allied health professions. Emphasizes presentation skills, APA guidelines and learning styles for program success. Prerequisite: Acceptance into the program. (SFCC)

OTA 102 - Occupational Therapy Terminology (1 cr)
Supervised self-study of terminology and abbreviations used to describe the anatomy, physiology, and pathology of the body systems used in relationship to the practice of physical and occupational therapy. Terms associated with diagnostics, surgery, laboratory tests, pharmacology, and patient care will be included. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 103 - Applied Anatomy (2 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 in OTA courses. (SFCC)

OTA 104 - Survey of Pathophysiology (5 cr)
Basic overview of disease processes including general pathological responses and the physiology of healing and repair. Description of specific diseases and conditions and the medical and surgical forms of treatment as they relate to rehabilitation. Prerequisite: Grade of 2.0 or better in OTA courses or permission of instructor. (SFCC)

OTA 105 - Introduction to Neuroscience (4 cr)
Introduction to the structures and basic functions of the nervous system in relationship to occupational therapy treatment of patients with neurological lesions and disease processes. Prerequisite: Grade of 2.0 or better in previous OTA courses or permission of instructor. (SFCC)

OTA 107 - Occupation Through the Lifespan (2 cr)
A survey of human development focusing on the physical, cognitive, psychological, and emotional/social processes and their impact on occupation from infancy through older adulthood. Topics include: Overview of major development theories; typical and atypical development, culture, and spectrum of “normal”; application of concepts of human development to the practice of occupational therapy. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 108 - Regional Anatomy (3 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, renal/urinary, genital/reproductive, immunologic and endocrine systems. This course is specially designed to meet the needs of students becoming an OTA. Prerequisites: BIOL& 241 and acceptance into the OTA Program. (SFCC)

OTA 110 - OTA Procedures (2 cr)
This course is designed to give occupational therapy assistant students basic knowledge in patient care, clinical procedures, managing infections, transfer, client handling techniques, assistive mobility equipment in preparation for the patient care and treatment environment. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 111 - Activity Analysis (3 cr)
Class provides opportunities to develop a foundation of knowledge and skills for the assessment and treatment of occupational performance through activity analysis. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 112 - Occupational Performance and Physical Disabilities (3 cr)
Course explores the role of the occupational therapy assistant in physical disabilities settings. Instruction in occupational performance, restoration techniques for daily living skills, use of assistive devices, and selected occupational performance activities, use of the OT Process. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 113 - Occupational Therapy Principles (3 cr)
Course applies occupational therapy principles, frames of reference, and theories integrating Occupational Therapy Practice Framework with occupational performance. Student gains knowledge in clinical reasoning as related to the therapy process, and a more in -depth study of the Occupational Therapy Process. Course also includes evidenced-based practice and the application to clinical decisions as an OTA. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 114 - Therapeutic Activities (3 cr)
This course provides occupational therapy assistant students basic knowledge of assessments used in therapeutic environments, introduction to emerging practice areas and activity modification for infant through older populations. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 120 - OTA Procedures Lab (2 cr)
This course provides occupational therapy assistant students basic knowledge and skills in patient care, clinical procedures, managing infections, transfer, client handling techniques, assistive mobility equipment, and basic physical modalities in preparation for the patient care and treatment environment. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 122 - Occupational Performance and Physical Disabilities Lab (3 cr)
Lab course explores through functional application, the role of the occupational therapy assistant in physical disabilities settings. Instruction in occupational performance, restoration techniques for daily living skills, use of assistive devices, and selected occupational performance activities. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 123 - Applied Anatomy Lab (2 cr)
Lab course provides functional application and practice in human anatomy with an emphasis on the musculoskeletal system, external palpation, manual muscle testing, range of motion testing and identification of structures and relationship to function. Introduction to kinesiology. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 124 - Therapeutic Activities Lab (2 cr)
This course provides occupational therapy assistant students basic knowledge and hands-on skills in assessment administration, emerging practice areas and activity modification/fabrication across the lifespan. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 151 - Level I Clinical Fieldwork 1- Physical Disabilities (1 cr)
One credit fieldwork course consisting of observation and application of knowledge and skills learned thus far in OTA curriculum to actual OT practice in a physical disabilities setting under direct supervision of a licensed practitioner. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 161 - Documentation for the Occupational Therapy Assistant (1 cr)
Instruction and application of clinical documentation as needed by the occupational therapy assistant. Course focuses on SOAP notes, goal-writing and articulating observation skills in a wide variety of clinical settings. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 180 - Regional Anatomy Lab (2 cr)
Laboratory course focusing on human body structure and function from a regional viewpoint with emphasis on identification of aspects of skeletal, muscular, nervous, respiratory and cardiovascular systems and introduction of digestive, renal/urinary, genital/reproductive, immunologic and endocrine systems using anatomic models and/or cadavers. Specially designed for OTA students. Prerequisites: BIOL& 241 and acceptance into the OTA Program. (SFCC)

OTA 201 - Issues in Occupational Therapy and Health Care (2 cr)
Survey of medical, ethical, legal, and psychosocial and relational issues relating to the role of the Occupational Therapy Assistant in the delivery of health care services. Course also includes professional growth, ethics, reimbursement and documentation, patient motivation/communication, assertiveness; adjustment to disability, resume and interview skills, and preparation for continuing education and professional development. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 202 - Group Dynamics (2 cr)
Course provides instruction for effective interpersonal communication in clinical settings. Emphasis is placed on basic listening skills, providing meaningful feedback, and cultivating group skills. This course utilizes both peer feedback and engagement of therapeutic use of self. Prerequisite: 2.0 or higher in OTA courses. (SFCC)

OTA 203 - Management for the Occupational Therapy Assistant (2 cr)
This course is designed to introduce the OTA student to the concepts of management, administrative positions, change theories and financial issues associated with health care. In addition, it will familiarize the OTA with the traits associated with leadership and mentoring within the profession of occupational therapy. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 210 - Occupational Performance and Mental Health (3 cr)
Course addresses acute and chronic psychosocial dysfunction conditions and occupational therapy's role in providing service. Topics include OTA's role in interventions, theory, evaluation, and treatment planning. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 212 - Occupational Performance and Children (3 cr)
Course examines child development and occupational therapy practice for individuals from birth through age 21, with a focus on physical and developmental disabilities, neurological dysfunctions and sensory processing concerns. Includes theory, assessment, treatment plan and intervention for this population. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 220 - Occupational Performance and Mental Health Lab (2 cr)
Course addresses acute and chronic psychosocial dysfunction conditions and occupational therapy's role in providing service. Topics include OTA's role in interventions, theory, evaluation, and treatment planning. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 221 - Occupational Performance and Aging (3 cr)
Exploration of therapeutic approaches with aging population and individuals with chronic disabling conditions. Occupational Therapy Practice Framework as well as productive activities, daily living skills, social participation, medication management, use of orthotic devices and adaptive equipment, work, and leisure are explored. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 231 - Occupational Performance and Aging Lab (2 cr)
Hands on exploration of therapeutic approaches with aging population and individuals with chronic disabling conditions. Occupational Therapy Practice Framework as well as productive activities, daily living skills, social participation, work, and leisure are explored. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 232 - Group Dynamics Lab (1 cr)
Course is designed to develop effective interpersonal communication in clinical settings through lab instruction and practice. Emphasis is placed on basic listening skills, providing meaningful feedback, and cultivating group skills. This course utilizes both peer feedback and engagement of therapeutic use of self. Prerequisite: 2.0 or higher in OTA courses. (SFCC)

OTA 242 - Occupational Performance and Children Lab (2 cr)
Lab course examines child development and occupational therapy practice for individuals from birth through 21, with a focus on physical and developmental disabilities, neurological dysfunctions and sensory processing concerns. Includes assessment, treatment plan and intervention, lab experiences related to treatment techniques and demonstration of knowledge of developmental stages in infants and children. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 251 - Level I Clinical Fieldwork II- Pediatrics and Mental Health (1 cr)
Fieldwork course consisting of observation and application of knowledge and skills learned thus far in OTA curriculum to actual OT practice in both a pediatric and mental health setting under direct supervision of a licensed practitioner. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 252 - Level I Clinical Fieldwork III (1 cr)
This course includes observation of community settings serving the unique needs of older adults who have experienced substantial change in independence due to age related changes. This course will explore how these settings inform the practice of occupational therapy. This is the final level I fieldwork in a setting focused on specific needs (acute and/or chronic) of the older adult. This course will also provide a clinical skills review and practice seminar to prepare for Fieldwork II.. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 253 - Level II Clinical Fieldwork 1a (4 cr)
This course is the first half of the eight week Level II fieldwork in contracted community facility. Level II fieldwork is a full time clinical experience designed to develop the student's skills from those of student to entry level OTA practitioner. The learning objectives for a Level II fieldwork are established by the American Occupational Therapy Association and are the items on the student fieldwork performance evaluation. Supervision is initially "direct and then decreased to less direct supervision as is appropriate for the setting, the severity of the client's condition and the ability of the student" (ACOTE C.1.16). Grading option: Pass/Fail. Prerequisite: 2.0 or better in OTA courses and Concurrent Enrollment in OTA 263. (SFCC)

OTA 254 - Level II Clinical Fieldwork 1b (4 cr)
This course is the second half of the eight week Level II fieldwork experience. Level II fieldwork is a full time clinical experience designed to develop the student's skills from those of student to entry level OTA practitioner. The learning objectives for a Level II fieldwork are established by the American Occupational Therapy Association and are the items on the student fieldwork performance evaluation. Supervision is initially direct and then decreased to less direct supervision as is appropriate for the setting, the severity of the client's condition and the ability of the student (C.1.16). Grading option: Pass/fail. Prerequisite: 2.0 or better in OTA courses and Concurrent Enrollment in OTA 263. (SFCC)

OTA 255 - Level II Clinical Fieldwork 2 (8 cr)
One of two full time, eight week Level II fieldwork experiences to attain ACOTE requirement of 16 weeks full time fieldwork, in a practice setting different from OTA 253 and OTA 254 Level II fieldwork. The purpose of this Level II fieldwork is for the student to develop skills from student to entry level OTA practitioner in a second practice area. Supervision is initially "direct and then decreased to less direct supervision as is appropriate for the setting, the severity of the client's condition and the ability of the student (C.1.16). This course is graded Pass/Fail. (SFCC)

OTA 261 - Level II Fieldwork Skills Seminar (1 cr)
Seminar course designed to augment OTA 251 Level I fieldwork and prepare student for Level II fieldwork. Seminar course focuses on professional behaviors, clinical expectations, therapeutic relationships, professional relationships, fieldwork process, ACOTE and school standards for fieldwork experience, future role as fieldwork supervisor. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 263 - Fieldwork II Seminar 1 (1 cr)
Fieldwork seminar hybrid course designed to support the student in deepening critical thinking, understanding during Level II fieldwork, provide classroom support as a learning community during the Level II fieldwork experiences. Grading option: Pass/Fail Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 264 - Fieldwork II Seminar 2 (1 cr)
Fieldwork seminar online course designed to support the student in deepening critical thinking, understanding during Level II fieldwork, provide online support as a learning community during the Level II fieldwork experiences. Grading option: Pass/fail. Prerequisite: Grade of 2.0 in previous OTA courses. Concurrent enrollment OTA 254 and/or OTA 255. (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, SFCC)

OPERATION SPECIALIST APPRENTICESHIP

OS 101 - Planning & Management Operational Resources (5 cr)
Students will be able to analyze capacity, demand, equipment, inventory, staffing, and budget reports. They be able to compose budgets for staffing, materials, and funding resources. They will gain a more in depth understanding of how to schedule staff, project tasks, procurement needs, and financial resource needs. Students will explain how production plans are built, including tools for prioritization and contingency planning. Students will learn best practices related to scheduling, estimating costs, forecasting workload, planning resource use, setting department goals, and monitoring progress. They will engage in effective debriefing communication to maintain continuous improvement of processes. 5 hours of safety in this course. (SCC)

OS 102 - Advanced Communications (5 cr)
Apprentices are introduced to basic communication concepts relating to the workplace. Concepts include theory and skills practice related to interpersonal, intercultural, and production team communications, technical writing and business communications, phone and email etiquette, and conflict management. Students will create a professional portfolio that includes a resume, examples of skills, accomplishments, and samples of work. (SCC)

OS 103 - LEAN & Sigma 6 Foundations (Green Belt) (5 cr)
In this course, students will be able to relate LEAN Six Sigma concepts to production objectives. They will identify waste within the value stream and demonstrate the ability to effectively analyze and present data to co-workers and stakeholders. They will define and apply team leadership tools to aid in process improvement. Students will collect and process customer or internal stakeholder input/requirements and identify key metrics for measuring success. Students will define the DMAIC process and effectively use tools and concepts associated with each phase of the DMAIC process. Finally, they'll employ Lean Six Sigma skills in process improvement projects. (SCC)

OS 104 - Manufacturing Leadership Development (5 cr)
Students will develop tools to identify and communicate the evolving purpose of their organization. They will be able to provide guidelines to develop team unity towards that purpose. Students will adopt skills to empower team members and lead them to personal and professional growth. They will use planning tools to help manage change and work toward continued positive results. Students will explain and practice leadership best practices, including mentorship, creating specific and evolving goals, creating a work culture aligned for success, motivation techniques, and conflict resolution. This course introduces interpersonal communication skills critical to leaders, including running effective and productive meetings, developing active listening skills, contributing to group decision making, and strategies for presenting to a hostile audience. (SCC)

OS 105 - Enterprise Resource Planning (ERP Foundations) (5 cr)
Enterprise Resource Planning (ERP) refers to a method or type of software that organizations use to manage day-to-day activities. In this course, students will explore ways that ERP is used to efficiently manage demand and procurement. They will explain how ERP is used to quantify resource use, and better plan production jobs and product delivery. Students will use ERP to create invoices to send directly to customers or create and transmit import and export documentation required for cross-border shipments. Students will also identify how ERP processes enhance collaboration between businesses and vendors, helping to reduce bottlenecks. Students will explore how ERP use can help target inefficiencies in resource use and improve business outcomes. Finally, students will explain how ERP can help organizations adapt during business downturns. (SCC)

OS 106 - Production & Project Management (5 cr)
Students will build on their knowledge of project management and explore techniques for getting projects back on track. They will focus on assigning project roles and responsibilities, problem solving, and risk management. Students will gain an understanding of tools and processes to help complete project on time and within operation production goals. This course will include some real examples of project management challenges being experienced by their classmate and the class will explore ideas to address those challenges. Students will recognize the importance of their roles as mentors to teach their teams problem solving skills. They will explore the concept of root cause analysis for identifying problems. They will practice ways to prioritize, plan, and efficiently solve problems once they have been identified. Students will be introduced to several methods of problem solving and explore one in detail. (SCC)

ORTHOTIC-PROSTHETIC TECHNICIAN

OR-PR 101 - Foundations of Orthotic Technology (1 cr)
Focus will be on roles of different professionals in Orthotic care and their scopes of practice. Examine different types of practices and equipment found in Orthotic facilities. (SFCC)

OR-PR 102 - Foundations of Orthotic Technology Lab (3 cr)
Focus is on foundational fabrication skills, basic material science, and practice of applicable hands on skills to prepare for specific training in orthotic fabrication. (SFCC)

OR-PR 103 - Foundations of Prosthetic Technology (1 cr)
Focus will be on roles of different professionals in Prosthetic care and their scopes of practice. Examine different types of practices and equipment found in Prosthetic facilities. (SFCC)

OR-PR 104 - Foundations of Prosthetic Technology Lab (3 cr)
Focus is on foundational fabrication skills, basic material science, and practice of applicable hands on skills to prepare for specific training in prosthetic fabrication. (SFCC)

OR-PR 105 - Orthotic and Prosthetic Terminology (2 cr)
Explore communication in a professional setting by using terminology commonly used in the orthotic and prosthetic industry. Topics include anatomical reference points, planes of the body, and basic medical terminology. (SFCC)

OR-PR 106 - Orthotic and Prosthetic Lab Safety (2 cr)
Examine state and federal safety standard compliance, lab safety best practices, safe use of hand tools, power tools and equipment as related to orthotic and prosthetic fabrication. Students will demonstrate these skills in the lab. Since the topic of this course is critical, a minimum passing grade of 3.5 is required to remain in the program. (SFCC)

OR-PR 115 - Prosthetic Biomechanical Principals (5 cr)
Examine biomechanical principals of prosthetics. Topics include the human gait cycle, its phases, and the underlying anatomical functions involved in locomotion. Anatomy of an amputation, amputation levels, socket fit and function, and the basic principles of prosthetic alignment. Prerequisite: OR-PR 103. (SFCC)

OR-PR 116 - Lower Extremity Prosthetic Technologies (4 cr)
Use basic fabrication techniques, alignment applications, materials science, componentry, and socket design as related to lower extremity prosthetics. Prerequisite: OR-PR 103. (SFCC)

OR-PR 117 - Upper Extremity Prosthetic Technologies (3 cr)
Apply basic fabrication techniques, alignment applications, materials science, prosthetic componentry, and socket design as related to upper extremity prosthetic device fabrication. Prerequisite: OR-PR 103. (SFCC)

OR-PR 145 - Orthotic Biomechanical Principals (5 cr)
Examine biomechanical principals related to orthotic bracing. Topics include the human gait cycle, its phases, and the underlying anatomical functions involved in locomotion. Analyze basic gait analysis (normal and abnormal) and conditions/diseases that are widely encountered in the orthotic and prosthetic patient population. Research the design, material selection, and fabrication techniques related to lower extremity orthoses and footwear. Demonstrate knowledge of ankle-foot and knee-ankle-foot orthotic designs that are standard to the orthotic and prosthetic profession. Prerequisite: OR-PR 101. (SFCC)

OR-PR 146 - Lower Extremity Orthotic Technologies (5 cr)
Practice skills in the fabrication of various levels of lower extremity orthoses. Design considerations, material selection and processing, and specific fabrication techniques related to lower extremity orthoses will be introduced and examined. This lab course provides instruction and practice in the fabrication of industry standard lower extremity orthotic devices. Prerequisite: OR-PR 101. (SFCC)

OR-PR 147 - Upper Body Orthotic Technologies (2 cr)
Practice skills in the fabrication of spinal and upper extremity orthoses. Design, material selection and processing, and specific fabrication techniques related to spinal and upper extremity orthoses will be introduced and examined. This lab course provides instruction and practice in the fabrication of industry standard upper body orthotic devices. Prerequisite: OR-PR 101. (SFCC)

OR-PR 188 - OPT Practicum I (6 cr)
During this capstone practicum experience, students will spend 198 hours working in a functioning orthotic and prosthetic lab. Students will gain experience through supervised fabrication and delivery of orthotic and prosthetic devices. This requirement may be satisfied at any orthotic and prosthetic lab in the United States, as long as there is a certified prosthetist, orthotist, or technician employed there who is willing to supervise and evaluate student performance. Prerequisite: OR-PR 115 and OR-PR 145. (SFCC)

OR-PR 189 - OPT Practicum II (3 cr)
During this capstone practicum experience, students will spend 198 hours working in a functioning orthotic and prosthetic lab. Students will gain experience through supervised fabrication and delivery of orthotic and prosthetic devices. This requirement may be satisfied at any orthotic and prosthetic lab in the United States, as long as there is a certified prosthetist, orthotist, or technician employed there who is willing to supervise and evaluate student performance. Prerequisite: OR-PR 115 and OR-PR 145. (SFCC)

OR-PR 201 - Foundations of Pedorthics (4 cr)
Exploration of the skills and abilities required to become a certified pedorthist. Examine the role of the pedorthist, how a pedorthist fits in the clinical care team. Investigate ethical practices and concerns, and gain an understanding of pedorthic business management practices, such as documentation, compliance, coding, and billing. (SFCC)

OR-PR 203 - Pedorthic Fabrication and Design (1 cr)
Examine various pedorthic support devices a design concepts and the properties of the materials used to build them. Emphasis on critical problem-solving skills as they apply to pedorthic treatment. (SFCC)

OR-PR 205 - Applied Clinical Pedorthics (3 cr)
Practice clinical patient management skills within the Pedorthist's scope of practice. Apply patient screening and evaluation methods, the formulation of appropriate treatment plans, and patient follow-up and outcome measurements. Compare and contrast the fitting of off the shelf and custom pedorthic devices. (SFCC)

OR-PR 207 - Applied Pedorthics Lab (2 cr)
Accurately measure pedorthic patients and produce viable impressions of patients affected limbs. Explore fitting, adjusting, and providing appropriate instructions to the patient and their caregivers. (SFCC)

OR-PR 209 - Gait Analysis (2 cr)
Investigate principles of biomechanics and kinesiology as applied to the provision of pedorthic care. Compare and contrast standard human gait versus pathological gait. Explore pedorthic treatment strategies to manage pathologies and restore standard gait. (SFCC)

OR-PR 211 - Orthotic Fitter (2 cr)
Explore the foundational skills and abilities required to become a Certified Orthotic Fitter. Learn how various orthoses are designed to treat different pathologies, and gain an understanding of business management practices, such as documentation, ordering, coding, and billing for off the self, custom fit orthotic devices. (SFCC)

OR-PR 213 - Orthotic Fitter Lab (1 cr)
Practice the skills and abilities required to become a Certified Orthotic Fitter. Learn to assess the fit and function of various custom fit orthotic devices, determine appropriate device specifications based on identified pathologies. Practice selecting, fitting, and adjusting suitable orthosis types for given diagnoses. (SFCC)

OR-PR 215 - Digital Workflow I (1 cr)
Learn how to leverage computer-aided design and computer-aided manufacturing to provide various levels of orthotic and prosthetic care. Explore digital workflow in order to enhance patient care, improve device comfort and function, and increase fabrication efficiency. Special topics include the assessment of device prescription, using different interfaces to scan and digitize body segments, the importation and modification of scanned information, and converting finalized computer aided design files into useable computer aided manufacturing files. (SFCC)

OR-PR 217 - Digital Workflow Lab I (1 cr)
Develop practical skills utilizing various computer-aided design interfaces. Students will gain experience scanning and digitizing patient body sections. Learn how to upload and modify these shapes using common computer aided design software. Practice designing wearable devices and outputting files in various formats compatible with different computer aided manufacturing systems. (SFCC)

OR-PR 219 - Orthotic and Prosthetic Clinical Terminology (2 cr)
In this course, students will engage in an advanced study of medical terminology specific to orthotic and prosthetic clinical settings. Topics include pathologies, diagnostic tests, prescription interpretation, and insurance documentation terminology. Emphasizes effective communication with healthcare professionals and accurate clinical documentation. (SFCC)

OR-PR 221 - Digital Workflow II (1 cr)
Learn how to utilize computer-aided design and manufacturing interfaces to produce various orthotic and prosthetic devices. Explore digital workflow procedures related to the upload of various file formats, calibration of manufacturing equipment, and the execution of manufacturing operations. Practice includes manufacturing with carvers, 3D printers, and finishing of devices produced using these means of computer aided manufacturing. (SFCC)

OR-PR 223 - Digital Workflow Lab II (1 cr)
Develop practical skills and put into use the knowledge they gained during the lecture portion. Utilize various computer-aided manufacturing interfaces to produce various wearable patient devices. Gain experience performing safety checks, calibrating, loading raw materials, uploading files and executing fabrication operations. Students will practice finalizing devices for delivery. (SFCC)

OR-PR 225 - Documentation, Coding, and Billing (2 cr)
Explore topics covering documentation of patient encounters for inclusion in medical records, as well as common procedures for billing and reimbursement of orthotic and prosthetic services. Discuss the practice management side of the O&P field including clinical documentation, billing and reimbursement strategies, regulatory considerations along with maintenance of different forms of electronic databases and medical records. Apply the responsibilities of lab management and patient care duties. (SFCC)

PARALEGAL

LA 105 - Washington and Idaho Court Rules (3 cr)
Students learn to research Washington, Idaho, and federal court rules. Students interpret and apply rules as they relate to law office procedures are emphasized. Students also learn to distinguish procedural from substantive rules. (SCC)

LA 107 - Introduction to Legal Careers (3 cr)
Students are introduced to the legal industry, the role of a paralegal within law offices, basic skills of a paralegal, and how to prepare for a job as a paralegal. (SCC)

LA 108 - Legal Citations (3 cr)
Students are introduced to legal citation format for primary and secondary sources. Students will become proficient in the use of The Bluebook and Style Sheet. (SCC)

LA 110 - Legal Research and Writing (3 cr)
Students are introduced to legal research using electronic databases, as well as via books. Students will integrate research skills into drafting a variety of legal documents. Prerequisite: LA 108 - Legal Citations (SCC)

LA 118 - Instrument Drafting (3 cr)
This intensive course is for students who are at the end of their paralegal education. Students will regularly draft instruments and pleadings commonly used in every law office. (SCC)

LA 120 - Law Office Computing (3 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: One college-level computer class (CIS or BT) with a grade of 2.0 or higher. (SCC)

LA 125 - Law Office Procedures and Technology (3 cr)
Survey of common of technology/software that are used in law offices. Students will consider ethical implications of the use of technology in the law office. (SCC)

LA 130 - Legal Ethics (3 cr)
This course introduces and examines model ethics rules and the Washington State rules of professional conduct. These rules give insight into the best practices by which paralegals operate within a law office. (SCC)

LA 201 - Introduction to Probate (3 cr)
This course introduces and explains the concepts of probate law. Students will reflect on common post-death legal issues. In addition, students will draft and modify probate documentation in accordance with existing law. (SCC)

LA 205 - Contracts (3 cr)
This course introduces and explains the fundamentals of contract law. The course will additionally apply contract law principles to advertising, warranties, and consumer protection laws. (SCC)

LA 207 - Family Law (3 cr)
In this course, students will examine and identify concepts related to the laws of marriage and the dissolution of marriage. Emphasis will be placed on local forms and rules governing family law practice. This course will additionally explore topics related to child custody and support, adoption, and paternity. (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 217 - Business Organizations (3 cr)
Students learn about different business entities and the process to form such entities. (SCC)

LA 218 - Employment Law (3 cr)
Students will learn the laws relating to employment law. Students will study how federal and state administrative agencies play a significant role in the processing of employment claims, ranging from discrimination to unemployment. (SCC)

LA 219 - Criminal Law and Procedure (3 cr)
This course provides an overview of the criminal justice system emphasizing the constitutional framework of criminal procedure. (SCC)

LA 220 - Torts (3 cr)
In this course, students will examine and identify common topics related to civil court actions. Additional emphasis will be placed on law office practices within civil litigation law offices and paralegal participation in civil litigation. (SCC)

LA 221 - Property and Real Estate Transactions I (3 cr)
In this course, students will examine and identify common concepts in real property law. Additional emphasis will be given to real estate transactions, title company practice, and restrictions placed on real property that govern fundamental decision making within the law office. (SCC)

LA 223 - Interview and Investigation Techniques (3 cr)
Survey of commonly used and professionally appropriate interviewing and investigative techniques emphasizing ethical standards, critical reasoning, and organizational skills. (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)

LA 230 - Insurance Law (3 cr)
This course covers basic insurance terminology and an overview of insurance laws that are frequently encountered in different types of causes of actions. (SCC)

LA 239 - Special Issues Seminar (3 cr)
Paralegal Legal Specialty Elective (Special Issues). Students survey various new and emerging issues not covered by our traditional curriculum. The substance of this course varies. (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. (SCC)

LA 241 - Evidence (3 cr)
This course will examine the rules governing evidence and a paralegal's role in the preparation of evidence for trial. Topics include relevancy; authentication; the 'Best Evidence' doctrine; character and habit evidence; competency of witnesses; examination and impeachment of witnesses; opinion and expert testimony; privilege; the hearsay rule and its exceptions. (SCC)

LA 245 - Supervised Legal Work Experience (1-5 cr)
This course provides an in-depth clinical experience required for all students enrolled in the paralegal. Students are supervised in the clinic by attorneys and the legal program coordinator. (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 (5 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 126 - Sterile Compounding and Aseptic Technique (3 cr)
Students focus on training of sterile parenteral preparation within a hospital, long-term care facilities and home healthcare. Training follows the requirements of USP Chapter 797 Standards. (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)

PHARM 145 - Pharmacology (3 cr)
Previously known as HED 145. 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)

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. (SCC, SFCC)

PHIL 110 - Intro to 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. (SFCC, SCC)

PHIL& 115 - Critical Thinking (5 cr)
An informal, non-symbolic introduction to logic and critical thinking emphasizing real-life examples, natural language applications, and the informal logical fallacies. (SFCC, SCC)

PHIL& 120 - Symbolic Logic (5 cr)
Introduction to modern symbolic logic emphasizing sentence logic with translation and proofs and quantificational logic with translation and proofs. Prerequisite: A 2.0 or better in Math 88, 90, 97, 98, 99, or placement score in a 100 level or above MATH course. (SCC, SFCC)

PHIL 202 - NURS 202/Ethics and Policy in Healthcare I (3 cr)
This course introduces ethical principles that shape the practice of healthcare professionals and are used to develop healthcare policies. This course is a concept based course introducing ethics, legal issues and health policy to nursing practice. Prerequisite: Acceptance into the nursing program. (SCC)

PHIL 204 - Political Philosophy (5 cr)
Formerly POLS 204. This is an introduction to the political philosophy, which is the branch of philosophy that investigates concepts such as government, state of nature, authority and legitimacy. (SCC)

PHIL 207 - NURS 207/Ethics and Policy in Healthcare II (2 cr)
This course builds from the content introduced in NURS 202. Students apply the ethical principles that are used to develop and implement healthcare policies in a variety of healthcare settings. Prerequisite: Acceptance into the nursing program. (SCC)

PHIL 209 - Eastern Philosophy (5 cr)
An introduction to the philosophical perspective and values of eastern cultures and traditions. (SCC, SFCC)

PHIL 215 - Environmental Ethics (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. (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. (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 110 or permission of instructor. (SFCC)

PHIL 330 - Professional Ethics (5 cr)
This course will examine ethical principles and considerations involved in making moral business decisions. Basic ethical viewpoints will be explored as a means to analyze specific characteristics of business life through particular cases and examples. Prerequisite: Applied BAS degree students only. (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 110 - Introduction to Film Editing (5 cr)
This course will introduce professional practices for post-production in film and video production. Students will explore the skills necessary to work as digital imaging techs, assistant film editors, film editors, sound designers, and colorists. (SFCC)

PHOTO 111 - Studio Photography I (5 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 126 or concurrent enrollment; or permission of instructor. (SFCC)

PHOTO 112 - Photographic Design (5 cr)
Students in this course discover the relationship between visual design and storytelling. This course explores the elements and principles of design, sequencing, juxtaposition, and visual communication strategies. In addition to this, students survey the application of photography in a wide variety of contexts and careers. Students learn to assess their work and formulate criteria for critiquing images. Prerequisite: PHOTO 126 or permission of instructor. (SFCC)

PHOTO 114 - Digital Cinematography I (5 cr)
Students explore cinematography and film set etiquette and safety protocols while learning to operate video cameras, audio recording equipment, and cinema lighting equipment. (SFCC)

PHOTO 120 - Photographic Arts (5 cr)
Students develop artistic interpretations of analog and digital images by applying alternative printing techniques. Topics include photo montages, mordançage, alternative color processes such as cyanotype and chromoskedasic, image transfers, and applying photographic images to non-traditional substrates. Students learn to sequence and present images in handmade books. Prerequisite: PHOTO 126 or concurrent enrollment; or permission of instructor. (SFCC)

PHOTO 121 - Location Photography I (5 cr)
This course further applies the principles of studio photography 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 126 or concurrent enrollment; or permission of instructor. (SFCC)

PHOTO 126 - Digital Photography (5 cr)
Students explore the techniques and applications of acquiring, editing, and outputting digital photographic images. Emphasis is placed on camera operation and professional digital workflow. (SFCC)

PHOTO 130 - Digital Cinematography II (5 cr)
Students explore cinematic storytelling through the planning and execution of shot sequences, sound design, and lighting techniques for commercial video productions. (SFCC)

PHOTO 200 - Photography Media (4-5 cr)
This course focuses on photography as a communication tool. Students explore visual storytelling techniques and produce multimedia presentations that combine still-images, video clips, audio, text and graphics for web and print media. Prerequisite: PHOTO 126 or permission of instructor or concurrent enrollment in PHOTO 126. (SFCC)

PHOTO 225 - Portfolio Development II (5 cr)
Students develop a comprehensive portfolio in preparation for entering their career field of choice. Projects include designing a physical portfolio, creating a digital portfolio, building a portfolio website, and creating a video reel. At the end of the class a panel of industry professionals will review student portfolios. (SFCC)

PHOTO 227 - Business of Photography (5 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. (SFCC)

PHOTO 228 - Film Development and Producing (5 cr)
Students learn how film and television productions get developed, produced, promoted, and distributed. (SFCC)

PHOTO 231 - Studio Photography II (5 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 or permission of instructor. (SFCC)

PHOTO 232 - Portraiture (5 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 126 or permission of instructor. (SFCC)

PHOTO 233 - Location Photography II (5 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, industrial, and fashion segments of commercial photography. Subjects vary from architectural design, corporate communication and working with fashion models on location. Prerequisite: PHOTO 121 or permission of instructor. (SFCC)

PHOTO 234 - Digital Photography II (5 cr)
Students in this course apply skills acquired in PHOTO 126 to create imaginative photographic illustrations and prepare them for publication utilizing color management techniques. An emphasis is placed on color management. Prerequisite: PHOTO 126. (SFCC)

PHOTO 235 - Nature and Landscape Photography (3 cr)
This course introduces students to nature and landscape photography. Students discover the elements and principles of design while participating in field trips in a variety of environments including wilderness, rural, and urban. In addition to this, students survey the business of stock photography. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

PHOTO 236 - Photography Workshop (1-5 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 - Documentary Storytelling (5 cr)
Students examine a variety of creative approaches to documentary 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. Prerequisite: Photo 130 Digital Cinematography II. (SFCC)

PHOTO 247 - Narrative Storytelling (5 cr)
Students plan and create a short narrative film. Emphasis is placed upon the application of preproduction planning, production management, safety protocols, and directing a cast and crew. Prerequisites: PHOTO 110 and PHOTO 130. (SFCC)

PHOTO 266 - Cooperative Education Seminar (1-2 cr)
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 105 - Beginning Badminton (1 cr)
Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SFCC)

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)

PE 116 - Beginning Basketball (1 cr)
Fundamentals of ball handling, shooting, passing, and techniques of offensive and defensive play. Competitive play situations provided. (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 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)

PE 126 - Beginning Golf (1 cr)
Practice and development of fundamental skills, rules and etiquette of golf. (SFCC)

PE 130 - Pickleball (1 cr)
Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC)

PE 138 - Fundamentals of Resistance Training (2 cr)
Fundamentals of Resistance Training offers instruction and practice in proper techniques of the development of muscular strength, endurance, and flexibility. Emphasis is placed on reducing fat, increasing strength and performance. Also, special attention is given to exercise program design, safety procedures, and goal setting. (SFCC, 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 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. (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)

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)

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)

PE 150 - Beginning Archery (2 cr)
The course is designed to develop basic archery skills and appreciation of target archery. Students learn the proper use of equipment, fundamental skills, terminology, and scoring. (SCC)

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)

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)

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)

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)

PE 160 - Techniques of Volleyball (3 cr)
This course is a study of the rules, team organization, techniques and strategies of volleyball. (SFCC)

PE 164 - 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 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. (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 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)
This course is designed to provide the student with an opportunity to do physical activity and learn from health and fitness related assignments. The student will gain knowledge and skills that allow a person to live a longer, safer, healthier and richer life. The objective is to find and participate in activities that they can enjoy while providing personal growth and development. The cross-training class focuses on the following: Development of a comprehensive, personalized fitness program as well as working out on their own outside of campus such as in their house or another gym. In addition, individuals can include for their workouts other fitness activities they enjoy such as running, rowing, cycling, stair climbing, cross-country skiing, free weight training, in-line skating, walking, and many more. A weekly training record and log will be kept to evaluate the individual's progress toward their goals. (SCC, SFCC)

PE 188 - Basic Fitness I (2 cr)
To promote total body wellness, students will learn to incorporate exercise and nutrition as part of a healthy lifestyle. Group exercise activity is combined with lecture/labs to give students an understanding of physical fitness theory and technique. Students in the on-ground version of this course will participate in instructor lead group exercise activities such as Yoga, aerobic training, muscle conditioning, ZUMBA, Pilates, and Kickboxing. In the online version, student may participate in gym workouts, group fitness classes, team athletics, dance, water sports, cycling etc. Topics of lecture/labs may include goal setting, fitness assessment, components of fitness, principles of fitness, major muscles of the human body, target heart rate calculation, and nutritional assessment. Gain knowledge that can be used for a lifetime, while having fun participating in exercise activities to help you reach your fitness goal. (SCC, SFCC)

PE 190 - Introduction to Rock Climbing (1 cr)
Intro to Rock Climbing offers instruction and practice in basic rock climbing, belaying, and safety. The course will cover the skills necessary to climb and belay using a top-rope system in both an indoor facility and an outdoor setting. Emphasis is placed on safety practices, basic climbing knots, and belay technique. Other topics covered include climbing movement, equipment, and terminology. (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. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 100. (SCC, SFCC)

PE 201 - Advanced Volleyball (1 cr)
Advanced skills, rules, etiquette and strategy; development of skills through drills and competitive play. Prerequisite: PE 101. (SCC, SFCC)

PE 205 - Advanced Badminton (1 cr)
Advanced skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. Prerequisite: PE 105. (SFCC)

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. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 106. (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. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 107. (SCC, SFCC)

PE 211 - Exercise, Nutrition, and Weight Management (2 cr)
Exercise, Nutrition, and Weight Management is designed to educate students on the basics of exercise and nutrition for the purpose of weight management. Special emphasis is placed on the eating behavior and lifestyle choices in maintaining optimal body weight and improving overall health. (SCC)

PE 216 - Advanced Basketball (1 cr)
Advanced skills of ball handling, shooting, passing, and techniques of offensive and defensive play. Competitive play situations provided. Prerequisite: PE 116. (SFCC)

PE 217 - Kickboxing (1 cr)
Advanced skills, techniques and safety procedures of kickboxing. Sport specific activities to improve individual balance, strength, endurance and cardiovascular conditioning are emphasized. Prerequisite: PE 117. (SCC, SFCC)

PE 222 - Advanced Skiing (1 cr)
Continued instruction and development of competency in the skills and techniques of skiing. Classes are held at Mt. Spokane. Prerequisite: PE 122. (SCC)

PE 226 - Advanced Golf (1 cr)
Advanced skills, rules and etiquette of golf. Prerequisite: PE 126. (SFCC)

PE 230 - Advanced Pickleball (1 cr)
Advanced skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. Prerequisite: PE 130. (SCC)

PE 239 - Advanced 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 free bar weights and machine circuit training programs. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 139. (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. In the 200 level students will take more of a leadership role. Prerequisite: PE 141. (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. In the 200 level students will take more of a leadership role. Prerequisite: PE 143. (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. In the 200 level students will take more of a leadership role. Prerequisite: PE 144. (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. In the 200 level students will take more of a leadership role. Prerequisite: PE 145. (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. In the 200 level students will take more of a leadership role. Prerequisite: PE 146. (SCC)

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. In the 200 level students will take more of a leadership role. Prerequisite: PE 147. (SCC)

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. In the 200 level students will take more of a leadership role. Prerequisite: PE 149. (SCC)

PE 250 - Advanced Archery (2 cr)
The course is designed to continue developing archery skills and appreciation of target archery. Students learn the proper use of equipment, fundamental skills, terminology, and scoring. Prerequisite: PE 150 (SCC)

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. In the 200 level students will take more of a leadership role. Prerequisite: PE 151. (SCC)

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. In the 200 level students will take more of a leadership role. Prerequisite: PE 154. (SFCC)

PE 256 - Techniques of Soccer (3 cr)
This course is a study of advanced rules, team organization, techniques and strategy of soccer. Prerequisite: PE 156. (SCC, SFCC)

PE 257 - Track Techniques (3 cr)
This course is a study of advanced rules, techniques, and strategy of track and field events. Prerequisite: PE 157. (SCC)

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. Continuation of advanced drills, footwork, agility and conditioning for competitive play are emphasized. Prerequisite: PE 158. (SCC)

PE 259 - Techniques of Golf (3 cr)
This course is a study of advanced rules, techniques, fundamentals and skills of golf. It is designed for students interested in individual and team competition. Prerequisite: PE 159. (SCC)

PE 260 - Techniques of Volleyball (3 cr)
This course is a study of advanced rules, team organization, techniques and strategies of volleyball. Prerequisite: PE 160. (SFCC)

PE 264 - Techniques of Basketball (3 cr)
This course presents an intense study of advanced 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. Prerequisite: PE 164. (SCC, SFCC)

PE 265 - Techniques of Baseball (3 cr)
This course is designed to develop advanced 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. Prerequisite: PE 165. (SFCC)

PE 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

PE 267 - Cooperative Education Work Experience (1-3 cr)
For course description, see Cooperative Education. (SFCC)

PE 269 - Techniques of Softball (3 cr)
This course is designed for students interested in competitive fast pitch softball. Continuation of advanced drills, skills, techniques and conditioning for competitive play are emphasized. Prerequisite: PE 169. (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)

PE 275 - Diversity in Sports (5 cr)
This course will explore the progression of diversity in American sports and its impact on our modern culture. Accessibility and opportunities for those overcoming diversity issues such as ethnicity, religion, gender, and disabilities will be examined in the context of professional and amateur sports. The impact of this progression and its influence on our society both politically and morally will be studied. (SFCC, SCC)

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. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 177. (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. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 186. (SCC)

PE 287 - Advanced Cross Training (2 cr)
This course is designed to provide the student with an opportunity to do physical activity and learn from health and fitness related assignments. The student will gain knowledge and skills that allow a person to live a longer, safer, healthier and richer life. The objective is to find and participate in activities that they can enjoy while providing personal growth and development. The cross-training class focuses on the following: Development of a comprehensive, personalized fitness program as well as working out on their own outside of campus such as in their house or another gym. In addition, individuals can include for their workouts other fitness activities they enjoy such as running, rowing, cycling, stair climbing, cross-country skiing, free weight training, in-line skating, walking, and many more. A weekly training record and log will be kept to evaluate the individual's progress toward their goals. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 187. (SCC, SFCC)

PE 288 - Basic Fitness II (2 cr)
To promote total body wellness, students will learn to incorporate exercise and nutrition as part of a healthy lifestyle. Group exercise activity is combined with lecture/labs to give students an understanding of physical fitness theory and technique. Students in the on-ground version of this course will participate in instructor lead group exercise activities such as Yoga, aerobic training, muscle conditioning, ZUMBA, Pilates, and Kickboxing. In the online version, student may participate in gym workouts, group fitness classes, team athletics, dance, water sports, cycling etc. Topics of lecture/labs may include goal setting, fitness assessment, components of fitness, principles of fitness, major muscles of the human body, target heart rate calculation, and nutritional assessment. Gain knowledge that can be used for a lifetime, while having fun participating in exercise activities to help you reach your fitness goal. In the 200 level students will be introduced to advanced techniques. Prerequisite: PE 188. (SCC, SFCC)

PE 290 - Intermediate Rock Climbing (1 cr)
Intermediate Rock Climbing offers instruction and practice with more advanced rock climbing movement, technical skills, and safety. The course will cover the skills necessary for lead belaying and lead Climbing. Additionally, more advanced skills will be developed including; pick-offs, escaping belay, rappelling, cleaning an anchor, passing a knot, creating a z-drag, improvised rope systems, etc. Emphasis is placed on safety practices, advanced rope systems, use of various equipment, and sport climbing techniques. Other topics covered in the course include an introduction to vertical rescue, gear maintenance, and technical terminology. Prerequisite: PE 190 or permission of instructor. (SFCC)

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 (3 cr)
Instruction in human anatomy with an emphasis on the musculoskeletal system. Musculoskeletal structures are explained in their relationship to function. Basic principles of kinesiology (the study of the body in motion) will be presented. The principles of joint range of motion and manual muscle testing will be taught. Respiration and its neuromuscular process will be provided. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 104, 105, 173. (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 107 - Physical Therapy Documentation (1 cr)
Instructional focus on physical therapy documentation that follows guidelines and specific documentation formats required by state practice acts, practice settings and other regulatory agencies. Billing and payment information will also be discussed. Prerequisite: 2.0 or better in prior PTA courses. (SFCC)

PTA 108 - Regional Anatomy (3 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, renal/urinary, genital/reproductive, immunologic and endocrine systems. Prerequisites: BIOL& 241 and acceptance into the PTA Program. (SFCC)

PTA 110 - PTA Procedures I: Basic PT Procedures Seminar (3 cr)
Basic introduction to patient care skills including body mechanics, preparation for different patient diagnoses and treatment environments. Basic concepts and components of aseptic and infection control techniques, wound care, edema management, compression bandaging and taping will be explored. Methodology of data collection including vital signs and anthropometric measurements is presented. An introduction to modalities including superficial heat, cold, and hydrotherapy as it pertains to patient care will be taught. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 101, 102, 106, 170. (SFCC)

PTA 111 - PTA Procedures II: PT Modalities Seminar (3 cr)
Theory and principles of deep heat modalities, electrotherapy, postural drainage, basic massage, and introduction to fundamentals of traction and other physical agents used in physical therapy. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 112, 151, 171, 172. (SFCC)

PTA 112 - PTA Procedures III: Functional Restoration Seminar (3 cr)
Instructional focus on functional restoration techniques for neurologic, orthopedic and other patients requiring physical therapy; including bed mobility, patient transfers, use of assistive devices, orthotics, and prosthetics, wheelchair positioning, and postural analysis. Issues pertaining to the principles of normal and abnormal gait, Americans with Disability Act pertaining to environmental accessibility and community service opportunities will be explored. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 111, 151, 171, 172. (SFCC)

PTA 151 - Clinical Experience I (1 cr)
Supervised clinical observation and experience based in a variety of physical therapy clinic settings affiliated with the college are provided. All Clinical Performance Instrument criteria for safety, clinical behaviors, accountability, cultural competence and communication will be performed satisfactorily. Demonstrate knowledge of rationale for interventions and data collection methods identified in the plan of care from previous coursework through discussions with the clinical instructor. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in all PTA courses. (SFCC)

PTA 170 - PTA Procedures I: Basic PT Procedures Lab (4 cr)
Experiential learning of basic patient care skills and pertinent data collection methodology pertaining to vital signs, bandaging, aseptic techniques, wound care and edema management, and athletic taping. Preparation of patient and treatment environment in a laboratory setting. Application and pertinent data collection methodology pertaining to superficial heat, cold, and hydrotherapy will also be covered. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 101, 102, 106, 110. (SFCC)

PTA 171 - PTA Procedures II: PT Modalities Lab (4 cr)
Laboratory course focusing on the application and pertinent data collection methodology pertaining to deep heat modalities, electrotherapy, light therapy, and basic massage techniques. Laboratory sessions include the fundamentals of traction and other physical agents used in physical therapy with an emphasis on communication, utilization and safety in all applications. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 111, 112, 151, 172. (SFCC)

PTA 172 - PTA Procedures III: Functional Restoration Lab (4 cr)
Instruction in physical restoration techniques and pertinent data collection methodology pertaining to bed mobility, patient transfers, postural analysis, principles of normal and abnormal ambulation, balance, use of assistive devices, and selected functional rehabilitation activities. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 111, 112, 151, 171. (SFCC)

PTA 173 - Applied Anatomy Lab (3 cr)
Laboratory course focusing on human anatomy with an emphasis on the musculoskeletal system and functional movement. External palpation and identification of structures is explained and their relationship to function. Application of basic principles of kinesiology (the study of the body in motion) will be presented. Data collection and assessment pertaining to joint range of motion, manual muscle testing, and respiration will be taught. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 103, 104, 105. (SFCC)

PTA 180 - Regional Anatomy Lab (2 cr)
Laboratory course focusing on human body structure and function from a regional viewpoint with emphasis on identification of aspects of skeletal, muscular, nervous, respiratory and cardiovascular systems and introduction of digestive, renal/urinary, genital/reproductive, immunologic and endocrine systems using anatomic models and/or cadavers. Prerequisites: BIOL& 241 and acceptance into the PTA Program. (SFCC)

PTA 201 - Issues in Physical Therapy and Health Care (2 cr)
Survey of medical, ethical, legal, and psychosocial issues relating to the role of the PTA in various physical therapy facilities and in the delivery of health care. Emphasis on ethics, reimbursement and documentation, patient motivation/communication, assertiveness, adjustment to disability, resume and interview skills, and preparation for continuing education and professional development. Prerequisite: Grade of 2.0 or better in PTA courses. (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. (SFCC)

PTA 203 - Physical Therapy Preparatory Lab (1 cr)
Instructional focus is on general pharmacological concepts for the physical therapist assistant, preparation for the physical therapist assistant (PTA) licensing exam, special tests and evidence based standardized tools for assessment of the patient in physical therapy. Grading option: Pass/Fail. Prerequisite: Acceptance into the PTA program and grade of 2.0 or better in all PTA courses or permission of instructor. (SFCC)

PTA 210 - PTA Procedures IV: Therapeutic Exercise Seminar (3 cr)
Instructional focus on physical therapy concepts for therapeutic exercise techniques as they relate to treatment of the spine, extremities, cardiovascular, pulmonary, and vestibular systems. Discussion of stages of healing, post-operative indications and contraindications will be explored. Common exercise programs, protocols, equipment and exercise strategies will also be examined. Patient motivational issues and the PTA role as a member of the healthcare team will also be incorporated. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 212, 251, 254, 270, 272. (SFCC)

PTA 211 - PTA Procedures V: Rehab Applications Seminar (3 cr)
Instructional focus is on the use of common data collection methods and treatments for 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 and discussion of pertinent data collection methods 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 previous PTA courses and concurrent enrollment in PTA 201, 252, 255, 271. (SFCC)

PTA 212 - PTA Procedures VI: Pediatric Rehab Seminar (1 cr)
Instruction is provided in normal and abnormal human development, pediatric treatment philosophies and principles, pediatric assessment tools, gross motor skill development, behavior management and communication skills, and common pediatric disorders. Prerequisite: Grade of 2.0 in all PTA courses and concurrent enrollment in PTA 202, 210, 251, 254, 270, 272. (SFCC)

PTA 251 - Clinical Experience II (1 cr)
This course is a continuation of clinical experiences based in a variety of physical therapy clinic settings affiliated with the college. All Clinical Performance Instrument criteria will be performed at a "beginner to intermediate" performance or higher depending on the level of the student's didactic and laboratory competencies. Application of different interventions and data collection methods identified in the plan of care from previous coursework will be achieved through facilitation by the clinical instructor. Grading option: Pass/fail. 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)
This is the third clinical experience course based in a variety of physical therapy clinic settings affiliated with the college. All Clinical Performance Instrument criteria will be performed at "Advanced beginner to Advanced Intermediate" performance or higher depending on the level of the student's didactic and laboratory competencies. Application of interventions and data collection methods identified in the plan of care from previous coursework will be achieved through facilitation by the clinical instructor. Grading option: Pass/fail. 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 ensure 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. The Clinical Instructor is informed of the current skill level of the student. All Clinical Performance Instrument criteria will be performed at "Entry level" performance. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in all PTA courses. (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. Discussion regarding health records, International Classification of Functioning and supervisory roles will be reviewed. Prerequisite: Grade of 2.0 or better in previous PTA courses. (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)

PTA 270 - PTA Procedures IV: Therapeutic Exercise Lab (4 cr)
Laboratory course focus on development of therapeutic exercise programs for prevention and treatment of dysfunction of the spine, extremities, cardiovascular system, vestibular system, and somatosensory system. Implementation of treatment protocols and exercise techniques for specific diagnoses and conditions including orthopedic and neurological. Assessment techniques for posture, strength, flexibility, cardiovascular fitness will be employed. Documentation of treatment, response to treatment, assessment and planning. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 251, 254, 272. (SFCC)

PTA 271 - PTA Procedures V: Rehab Applications Lab (4 cr)
Laboratory course focusing on common data collection methodology and the application of physical therapy treatment for specific neurologic disabilities including, spinal cord injuries, stroke, head injuries, MS and other neurologic diseases. Emphasis is on the development of treatment programs and pertinent data collection methodology pertaining to orthopedic patients including upper and lower extremity dysfunctions, injuries to the spine and lower extremity amputations. Develop specific home programs, instruct in family training and select appropriate assistive devices and equipment for neurologic, geriatric and orthopedic patients. Apply physical therapy skills for the comprehensive treatment of the geriatric patient. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 211, 252, 255. (SFCC)

PTA 272 - PTA Procedures VI: Pediatric Rehab Lab (2 cr)
Laboratory sessions focus on pediatric physical therapy with an emphasis on facilitation of the developmental sequence, common treatment approaches including handling, positioning, range of motion, strength and mobility. Data collection methodology pertaining to pediatrics is also included. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 251, 254, 270. (SFCC)

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. Topics include One and Multi-Dimensional Kinematics and Dynamics, Momentum, Energy, and Rotational Motion. This course also requires a weekly laboratory. Prerequisite: 2.0 or better in MATH& 141 or higher. (SCC, SFCC)

PHYS 102 - General Physics (5 cr)
This course is for science and other majors not requiring calculus-level physics. Topics include Basic Fluid Mechanics, Oscillations and Waves, Static Electricity, Circuits, and Magnetism. This course also requires a weekly laboratory. Prerequisite: 2.0 or better in PHYS 101. (SCC, SFCC)

PHYS 103 - General Physics (5 cr)
This course is for science and other majors not requiring calculus-level physics. Topics include Thermodynamics, Geometrical and Wave Optics, Special Relativity, and Modern Physics. This course also requires a weekly laboratory. Prerequisite: 2.0 or better in PHYS 101. (SCC, 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 99 or equivalent; PHYS 100 or high school physics. Enrollment is limited to invasive or noninvasive cardiovascular technology students. (SCC)

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: Concurrent enrollment in MATH& 151 or higher. (SFCC, SCC)

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: A grade of 2.0 or higher in PHYS 201 and concurrent enrollment in MATH& 152 or higher. (SFCC, SCC)

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: A grade of 2.0 or higher in PHYS 201 and concurrent enrollment in MATH& 152 or higher. (SFCC, SCC)

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. (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. (SCC, SFCC)

POLS& 202 - United States Government (5 cr)
The basic course develops an understanding of US politics and political institutions, the philosophies and concepts of US constitutionalism, and the structure and operation of the US form of government. Emphasis is placed on the theories and practice of democracy, pluralism and elitism. (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. (SCC, SFCC)

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. (SCC)

PRACTICAL NURSING

PN 101 - Fundamentals in Nursing (3 cr)
This course introduces students to the fundamentals of nursing. Concepts including the nursing process, care, assessment, and communication. This course takes a deep dive into the nursing process step one, assessment. This includes assessment of all body systems for a variety of patients across the lifespan. This course will begin to explore the major concepts of clinical decision making, collaboration and professionalism. Prerequisites: Acceptance into the Practical Nursing Program (SCC)

PN 102 - Application of Fundamentals in Nursing (5 cr)
This course applies the knowledge from PN 101 to lab and clinical practice. Student will apply the concepts of the nursing process, caring, assessment, and communication. This course includes application assessment of all body systems and laboratory and diagnostic testing. Grading option: Pass/fail. Prerequisites: Acceptance into the Practical Nursing Program. Concurrent Enrollment: PN 101. (SCC)

PN 110 - Care of the Family and Mental Health Patient (6 cr)
This course explores concepts related to the maternal newborn, pediatrics, and mental health. This course will be divided into three units; Maternal/Newborn, Pediatrics, and Mental Health. Each unit focuses on concepts to a specific patient population. Prerequisites: Previous quarter of the Practical Nursing Program. Concurrent Enrollment: PN 111. (SCC)

PN 111 - Application of Care of the Family and Mental Health Patient (4 cr)
This course explores concepts related to the maternal newborn, pediatrics, and mental health. This course will be divided into three units: Maternal/Newborn, Pediatrics, and Mental Health. Each unit focuses on concepts to a specific patient population. The focus of this course is to apply the concepts of assessment, medication administration, safety, and therapeutic relationships with patients in maternity/newborn, pediatric and mental health settings. Grading option: Pass/Fail. Prerequisites: Previous quarter of the Practical Nursing Program. Concurrent Enrollment: PN 110. (SCC)

PN 120 - Care of the Medical/Surgical Patient (4 cr)
This course builds from knowledge gained in previous quarters of the Practical Nursing Program. Students will continue to develop knowledge in concepts of major concepts of clinical decision making, collaboration and professionalism. This course will introduce new concepts related to the medical/surgical patient across the lifespan including but not limited to oxygenation, perfusion, elimination, and metabolism. Prerequisites: Previous quarters of the Practical Nursing Program. Concurrent Enrollment: PN 121. (SCC)

PN 121 - Application of Care of the Medical/Surgical Patient (5 cr)
This course applies knowledge from PN 120 and previous courses in the Practical Nursing Program to lab and clinical practice. Students will apply the concepts of oxygenation, perfusion, elimination, metabolism and more. This course will bring students into the lab, clinical and simulation environments. (SCC)

PN 130 - Practical Nursing Capstone (5 cr)
This course is the culmination of all previous nursing quarters to create an end of program experience. Students will apply concepts of professionalism, management of care, clinical decision making, collaboration, and caring. This course also helps students apply technical skills and apply principles of delegation, prioritization, and time management. Prerequisites: Previous quarters of the Practical Nursing Program. Concurrent Enrollment: PN 131. (SCC)

PN 131 - Transition to Practice (4 cr)
This course helps to prepare the student for transition into practice. Students will explore leadership principals, strategies to prepare for the national licensure exam, group dynamics and legal issues. Students will also create a resume and role-play interviews. Prerequisites: Previous quarters of the Practical Nursing Program. Concurrent Enrollment in PN 130 required. (SCC)

PRECISION METAL FABRICATION

PMF 101 - Introduction to Precision Metal Fabrication (5 cr)
This course provides an overview of the topics relating to precision metal fabrication, its major tools, and skill sets. Students will learn what is involved in the production of precision sheet metal components for industries in accordance with written instructions, blueprints, and computer-aided design (CAD) drawings. (SCC)

PMF 102 - Precision Metal Fabrication Technology I (5 cr)
Apprentices will learn to set up, manage, and safely operate a CNC Turret Press in order effectively punch sheet metal. (SCC)

PMF 103 - Precision Metal Fabrication Technology II (5 cr)
Students will learn how to operate the Press Brake effectively. Students will learn about press brake safety, and how to effectively run a press brake with a focus on safety. This will include setting up the press brake, “dialing in” the press brake, and managing the tonnage of the press brake so as not to damage the tooling. (SCC)

PMF 104 - Materials, Processes, References (5 cr)
Students will examine the materials and processes used in precision metal fabrication through various sources and hands-on activities, including basic metallurgy and welding processes. This course teaches the analysis of essential metals such as steel alloy, stainless steels, aluminum, and sheet metal. (SCC)

PMF 201 - Shop Math for Precision Metal Fabricators (5 cr)
Application of mathematics to metal fabrication environment. Perform standard shop computations and conversions between measurement systems. Relevant mathematical concepts are taken from Algebra, Geometry, and Trigonometry to help students understand formulas and common technical application problems. Basic math skills will be reviewed including decimals, fractions and conversions between them. This course also includes the solving of algebraic equations and application of formulas seen in industry. Students will learn properties of angles and common geometric shapes and relevant trigonometric functions, and they will be introduced to statistics. (SCC)

PMF 202 - Engineering Drawings (5 cr)
In this course, apprentices will learn to read and interpret engineering drawings for fabrication, assembly, welding, and other manufacturing processes. (SCC)

PMF 203 - Inspection (5 cr)
Apprentices will learn to utilize inspection tools and techniques to verify the quality of metal fabrication processes and products. Through lecture, discussion, and hands-on activities, the apprentices will gain experience evaluating sheet metal product dimensions, surface texture, coatings, material hardness, welds, threads and fasteners, assemblies, and manufacturing processes for quality. The apprentices will learn about calibration, layout, and measuring using a wide variety of precision tools and gages, such as micrometers, protractors, squares, calipers, and height gauges. This course also explores nondestructive testing technology, including dye penetrant testing, profilometers, and coordinate measuring machines. In addition, the apprentices will perform and document inspections using industry practices, such as first article inspection and statistical process control. (SCC)

PMF 204 - Computer Aided Design and Manufacturing (5 cr)
This course will provide apprentices with hands-on training in computer-aided design and manufacturing techniques and technologies. (SCC)

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. (SCC, SFCC)

PSYC 106 - NURS 106/Psychosocial Issues in Healthcare I (2 cr)
This course examines the determinants of health and illness to include social, psychosocial, environmental, spiritual and cultural dimensions across the lifespan and within the context of health care. Prerequisite: Acceptance into the nursing program. (SCC)

PSYC 113 - NURS 113/Psychosocial Issues in Healthcare II (3 cr)
This course applies the determinants of health and illness to include social, psychosocial, environmental, spiritual and cultural dimensions across the lifespan and within the context of healthcare. Prerequisite: Acceptance into the nursing program. (SCC)

PSYC& 180 - Human Sexuality (5 cr)
Explores the physiological, sociocultural and psychological aspects of sexuality. Covers the major theoretical constructs and empirical data regarding sexuality. May cover research techniques, sexual anatomy and physiology, reproduction, gender roles and development, sexual response, sexual behavior, orientation, relationships, love, sexual communication, sexual dysfunctions, sexually transmitted infections and treatment, sexual abuse and assault. (SFCC, SCC)

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. Cross-listed with SOC 204. Credit will not be granted for both. Prerequisite: PSYC& 100 or SOC& 101. (SCC, SFCC)

PSYC& 220 - Psychological Disorders (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 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 or permission of instructor. (SCC)

PSYC 333 - Motivation (5 cr)
Motivational Psychology is conceptualized as the application of valid and reliable Psychological principles related to Leadership and Motivation in the workplace. The purpose of this class is to maximize both employee well-being and organizational effectiveness by focusing on social, individual, and situational factors related to Leadership and Motivation in the workplace. General topics include: theories about motivation, workplace behaviors (ex: group dynamics), personality (attitudes and emotions relevant to work), decision making processes, persuasion (the differences between power and influence), managing stress effectively, and promoting fairness and diversity within organizations. Because of the research-based approach of Motivational Psychology, this class will include information about how research is designed, conducted, and interpreted. Prerequisite: Applied BAS degree students only. (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 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 - 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 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 - 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 artifacts. 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 - 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)

RAD 146 - Clinical Education IV (7 cr)
This course continues with the development of clinical skills introduced in RAD 136. Prerequisite: RAD 136. (SCC)

RAD 156 - Clinical Education X (1-7 cr)
Students learn radiographic clinical cat scan procedures. Prerequisite: The student must be enrolled in Yakima Valley Community College's online CT didactic courses. Students must be a licensed technologist within the state of Washington and the ARRT. (SCC)

RAD 157 - Clinical Education XI (1-7 cr)
Students learn radiographic clinical cat scan procedures. Prerequisite: The student must be enrolled in Yakima Valley Community College's online CT didactic courses. Students must be a licensed technologist within the state of Washington and the ARRT. (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 (2 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 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 the students' knowledge of positioning grows. Prerequisite: RAD 134. (SCC)

RAD 215 - Radiation Biology and Protection (1 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 VI (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 the 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 (2 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 includes 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)

RAD 239 - Advanced Image Evaluation (1 cr)
This course will review cross-sectional anatomy for various imaging modalities, such as CT, MRI, Nuclear Medicine, Sonography, PET scan, and Interventional and Cardiac Procedures. The students will access such factors as what projection/view is shown, anatomical anomalies, contrast, brightness, artifacts, and central ray correctly centered in the final images. The students will interact through classroom discussions and discussion board communications through the LMS. (SCC)

RESPIRATORY CARE

RT 209 - The Language of Respiratory Care (1 cr)
This is an introductory course in medical language pertaining to the respiratory care profession. The creation and understanding of medical words will be explored using word roots, suffixes, and prefixes. Systems covered will include the cardiovascular system, respiratory system, urinary system, nervous system, and the endocrine system. Additional content will include pregnancy and childbirth, diagnostic procedures, and an introduction to respiratory care pharmacology (SCC)

RT 213 - Electrocardiography (3 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 respiratory care program or permission of instructor. (SCC)

RT 214 - Electrocardiography Lab (1 cr)
Introduction to the field of cardiovascular technology, basic cardiac anatomy, physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences will support these concepts and provide simulated clinical situations and effective performance on the modality. Prerequisite: Enrollment in respiratory care program or permission of instructor. (SCC)

RT 241 - Fundamentals of Respiratory Care I (3 cr)
This is the first in a series of three-quarter courses introducing respiratory care fundamentals. Students learn the respiratory care profession, fundamentals of infection control, patient safety and record keeping, patient assessment, blood borne pathogens/HIV, patient-focused medical record review, American Heart Association HCP Card. Prerequisite: Admission to program. (SCC)

RT 242 - Fundamentals of Respiratory Care I Technical Skills Lab (2 cr)
This is the first in a series of three-quarter courses introducing respiratory care technical skills preparing the student for entry into the clinical setting. Admission to program. (SCC)

RT 244 - Cardiopulmonary Anatomy and Physiology (3 cr)
This is an introductory course on cardiopulmonary anatomy and physiology. This course includes the structure and function of the cardiopulmonary system and is fundamental to the application of the art and science of respiratory care. Prerequisite: Admission to program. (SCC)

RT 248 - 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 to program. (SCC)

RT 251 - Fundamentals of Respiratory Care II (3 cr)
This is the second in a series of three-quarter courses introducing respiratory care fundamentals. Students learn respiratory disease states, interpretation of clinical laboratory data, basic nutritional assessment, thoracic imaging, respiratory mechanic measurement, noninvasive monitoring, apnea monitoring and continuous oximetry/capnography, medical gas supply systems, medical gas therapy including oxygen and mixed-gas therapy, selection of a medical gas delivery system for acute and home care, humidity and aerosol therapy, selection of an aerosol delivery device for acute and home care, introduction to clinical simulation (COPD simulation-patient assessment). Prerequisite: Successful completion of previous term. (SCC)

RT 252 - Fundamentals of Respiratory Care II Technical Skills Lab (2 cr)
This is the second in a series of three-quarter courses introducing respiratory care fundamentals technical skills. Laboratory/clinical skills will include interpretation of clinical laboratory data, thoratic imaging, use of medical gas cylinders, reducing valves and regulators, use of medical gas piping systems, use of flow regulating devices, use of active and passive humidification devices, use of aerosol delivery devices, use of aerosol delivery devices for medication delivery, how to assess a patient for use of pMDI and DPI delivery devices, how to instruct a patient on using pMDI and DPI delivery devices. Prerequisite: Successful completion of previous term. (SCC)

RT 254 - Fundamentals of Spirometry (2 cr)
This course is the first in a sequence of three courses in pulmonary diagnostics. Students will learn the indications for spirometry, how to differentiate between forced and non-forced maneuvers, the clinical significance of spirometry and how to interpret a forced vital capacity. Prerequisite: Successful completion of previous quarter. (SCC)

RT 255 - Fundamentals of Spirometry Technical Skills Lab (1 cr)
This course is the first in a sequence of three courses developing the technical skills required for entry into the pulmonary diagnostic clinical sites. The student will learn how to assemble and calibrate a spirometer, how to perform and measure a non-forced vital capacity, how to perform and measure a forced vital capacity, how to perform and measure maximum voluntary ventilation, how to perform and measure flow-volume loops. Prerequisite: Successful completion of previous term. (SCC)

RT 256 - Interpretation of Arterial Blood Gases (2 cr)
This course describes the interpretation of arterial blood gases including respiratory and metabolic acidosis and alkalosis. Advanced interpretation techniques are emphasized. Prerequisite: Successful completion of previous term. (SCC)

RT 261 - Fundamentals of Respiratory Care III (4 cr)
This course is the third in a sequence of courses on the fundamentals of respiratory care. Students will learn how to demonstrate how to manage an airway, how to apply hyperinflation and secretion mobilization protocols, airway maintenance (positioning, simple airways, NT suctioning), emergency airway management, artificial airway management, hyperinflation therapy techniques, Intermittent Positive Pressure Ventilation, Bi-Level Positive Airway Pressure, Intrapulmonary Percussive Ventilation (IPV), secretion mobilization techniques (PAP, PEP, Flutter, Acapella, Aerobika, HFCWO, CPT, PD), drawing arterial blood gases, and an introduction to clinical simulation (NIPPV simulation–patient assessment). Prerequisite: Successful completion of previous term. (SCC)

RT 262 - Fundamentals of Respiratory Care III Technical Skills Lab (2 cr)
This course is the third in a sequence of courses on the fundamentals of respiratory care. Students will learn how to manage an airway, apply hyperinflation and secretion mobilization protocols, perform airway maintenance (positioning, simple airways, NT suctioning), perform emergency airway management, perform hyperinflation therapy techniques, perform Intermittent Positive Pressure Ventilation, perform Bi-Level Positive Airway Pressure, perform Intrapulmonary Percussive Ventilation (IPV), perform secretion mobilization techniques (PAP, PEP, Flutter, Acapella, Aerobika, HFCWO, CPT, PD), and draw arterial blood gases. Prerequisite: Successful completion of previous term. (SCC)

RT 263 - Respiratory Care Pharmacology (4 cr)
This is the first in a two-part series on respiratory care pharmacology. In this course students will learn the principles of drug action, administration of aerosolized agents, calculation of drug dosages, central and peripheral nervous systems, adrenergic bronchodilators, anticholinergic bronchodilators, methylxanthines, mucous controlling drugs, and aerosolized anti-infective agents. Prerequisite: Successful completion of the previous term. (SCC)

RT 264 - Computer Applications in Respiratory Care (1 cr)
This course is intended to provide the student with basic computer skills relevant to the profession of respiratory therapy. Content includes basic word-processing skills, basic PowerPoint skills, resume and cover letter writing, professional email composition, basic research strategies utilizing medical literature databases, an introduction to clinical informatics, and an introduction to clinical simulations. Prerequisite: Successful completion of previous term. (SCC)

RT 265 - RT Clinical I (1 cr)
This is the first in a series of clinical courses. The student will orientate to the facility and equipment, use electronic charting and deliver general patient care including assessment and prescribed medications. Written assignments will be completed including SOAP documentation, a Patient Care Plan and maintenance of clinical documentation. Prerequisite: Successful completion of previous term. (SCC)

RT 301 - Critical Care I (4 cr)
This introduces all aspects of the adult critically ill patient in need of life support systems. Topics will include ventilator taxonomy, non-invasive and invasive mechanical ventilation, ventilator monitoring, patient assessment, and liberation from mechanical ventilation. Prerequisite: Successful completion of previous term. (SCC)

RT 302 - Critical Care II (3 cr)
This course is a continuation of RT 301 Critical Care I introducing advanced concepts in all aspects of the adult and pediatric critically ill patient in need of life support systems. Topics will include therapies and approaches that deal with lung protective strategies in conjunction with non-invasive and invasive mechanical ventilation, advanced ventilator monitoring and patient assessment. Prerequisite: Successful completion of the previous term. (SCC)

RT 303 - Home Care and Rehabilitation (2 cr)
This course will introduce the application of respiratory care principles in the sub-acute care environment. Topics will include the economic impact of acute care, identification of patient populations who would benefit from sub-acute care, modification of oxygen therapy, artificial airway management, non-invasive modes of ventilation and invasive ventilation to meet the needs of sub-acute care. Course emphasis will include development of pulmonary rehabilitation, tobacco cessation and sub-acute care plans. Prerequisite: Successful completion of previous term. (SCC)

RT 304 - Pathophysiology (5 cr)
This course describes the pathophysiology of pulmonary diseases and their diagnosis and treatment. Disease states include obstructive, restrictive, circulatory, infectious, pleural diseases and skin/allergy testing. Prerequisite: Successful completion of previous term. (SCC)

RT 305 - Pulmonary Volumes Diffusion and Instrumentation (2 cr)
This course describes the indirect techniques used to measure lung volumes, diffusion and distribution of gases in the lungs. Techniques include nitrogen washout, helium dilution, body plethysmography, Fowler's distribution test, and single breath diffusion. Prerequisite: Successful completion of previous term. (SCC)

RT 308 - Basic Life Support Instructor (2 cr)
This course develops the instructional and technical skills required by the American Heart Association to become a Basic Life Support Instructor and to become a member of the campus CPR Club. Prerequisite: Successful completion of previous term. (SCC)

RT 309 - Advanced Pharmacology (3 cr)
This course will introduce advanced pharmacology specific to respiratory care in the care of critically ill patients. Focus will be on skeletal muscle relaxants, medications affecting the central nervous system, diuretic agents, and cardiovascular agents. Instruction is performed through a combination of didactic lessons and group review of patient case studies. Prerequisite: Successful completion of previous term. (SCC)

RT 311 - Critical Care I Technical Skills Lab (2 cr)
This course introduces the technical skills required to care for an adult critically ill patient in need of life support systems. Topics will include ventilator selection, airway management, and the application of non-invasive and invasive mechanical ventilation. Prerequisite: Successful completion of previous term. (SCC)

RT 312 - Critical Care II Technical Skills Lab (2 cr)
This course introduces the application of advanced techniques used in the management of the adult critically ill patient in need of life support systems. Students will demonstrate the applications of APRV, NAVA, PRVC, VC, VG, VS, lung protective strategies (ECMO, iNO, Liquid Ventilation, HFV), monitoring and parameter changes, principles of bedside pulmonary ultrasound, intra-aortic balloon pump and other forms of left and right ventricular assist devices. Prerequisite: Successful completion of previous term. (SCC)

RT 313 - Home Care and Rehabilitation Technical Skills Lab (1 cr)
This course will introduce the application of respiratory care equipment and principles in the sub-acute care environment. Topics will include selection and modification of oxygen therapy, airway management, non-invasive and invasive ventilators. Prerequisite: Successful completion of previous term. (SCC)

RT 315 - PVDI Technical Skills Lab (1 cr)
This course applies the indirect techniques used to measure lung volumes, diffusion and distribution of gases in the lungs. Techniques include nitrogen washout, helium dilution, body plethysmography, Fowler's distribution test, and single breath diffusion. Prerequisite: Successful completion of previous term. (SCC)

RT 321 - RT Clinical II (2 cr)
This is the second in a series of clinical courses perfecting skills in a non-critical acute care environment. Students will orientate to the facility, use electronic charting and deliver patient care including assessment, and delivery of prescribed medications, and participate in resuscitation or rapid response situations. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 322 - RT Clinical III (2 cr)
This is the third in a series of clinical courses perfecting skills in a non-critical acute care environment. Students will orientate to the facility, use electronic charting and deliver patient care including assessment, delivery of prescribed medications, participate in resuscitation or rapid response situations, apply non-invasive ventilation, and draw arterial blood gases. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 325 - PFT Clinical I (1 cr)
This course is the first clinical course in a series of two emphasizing the performance of pulmonary function testing in the acute care facility and the private practice physician's office setting. In a supervised setting a student will perform spirometry, spirometry with a bronchodilator, flow/volume loop, nitrogen washout or helium dilution, diffusion (DLCO), body plethysmography, and an arterial blood gas draw. Prerequisite: Successful completion of previous term. (SCC)

RT 331 - Critical Care Clinical I (5 cr)
This is the first in a series of clinical courses perfecting skills in critical care and non-critical acute care environments. Students will orientate to the facility, use electronic charting and deliver patient care including assessment, delivery of prescribed medications, participate in resuscitation or rapid response situations, apply non-invasive ventilation, apply invasive mechanical ventilation, draw arterial blood gases, and perform airway management. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 401 - Pediatrics/Neonatal RT (3 cr)
This course introduces the unique aspects of dealing with the newborn, from delivery room intervention, patient assessment, oxygenation and ventilation needs, airway management, medication delivery, disease states and conditions, non-invasive and invasive ventilation and monitoring along with resuscitation techniques and practices. Prerequisite: Successful completion of previous term. (SCC)

RT 402 - Advanced Cardiovascular Life Support (2 cr)
This course is intended to provide the student with an advanced understanding of cardiovascular life support strategies. Topics will include ECG interpretation, cardiovascular pharmacology, airway management, electrical therapy, identification of cardiovascular compromise, and treatment strategies in emergency cardiovascular care. Students will receive an American Heart Association (AHA) ACLS card upon completion of the course. Prerequisite: Successful completion of previous term. (SCC)

RT 403 - Advanced Pulmonary Diagnostics (3 cr)
This course emphasizes advanced pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics. Prerequisite: Successful completion of previous term. (SCC)

RT 404 - Research in Respiratory Care (2 cr)
This course will introduce basic research methodologies relevant to respiratory care research. Research ethics will be incorporated into all discussions, and students will be required to complete the National Institutes of Health online course "Protecting Human Subjects". Prerequisite: Successful completion of previous term. (SCC)

RT 406 - Management in Respiratory Care (2 cr)
This course is an interactive introduction to management responsibilities in a respiratory care department. Focus will be on leadership qualities, roles, and responsibilities. Instruction is performed through a combination of didactic lessons, group discussion, and group project work. Attendance at the Respiratory Care Society of Washington's State Conference is highly encouraged. Prerequisite: Successful completion of previous term. (SCC)

RT 407 - 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 upon the NBRC Therapist Multiple Choice (TMC) and Clinical Simulation (CS) Exams. Prerequisite: Successful completion of previous term. (SCC)

RT 409 - Research in Respiratory Capstone (2 cr)
In this course students are asked to apply concepts learned in RT 417 as well as other RT classes as they utilize the steps in developing a research study. Students will be asked to develop a hypothesis and conduct a literature review to summarize and synthesize the current body of evidence supporting or refuting their hypothesis. Students will then create a poster presentation to be presented at a local Respiratory Care Society of Washington meeting. Prerequisite: Successful completion of previous term. (SCC)

RT 410 - Fundamentals of Education Course Design (2 cr)
This course will introduce the student to the foundations of education. Topics will include the characteristics of the adult learner, audience assessment, performing a needs assessment, writing behavioral objectives, development of course syllabi, and measurement and evaluation. Prerequisite: Successful completion of previous term. (SCC)

RT 411 - Pediatrics/Neonatal Technical Skills Lab (2 cr)
This lab introduces the aspects of dealing with the newborns oxygenation and ventilation needs, airway management and lung protective strategies while also receiving American Heart Association (AHA) training and certification in Neonatal Resuscitation Program (NRP). Prerequisite: Successful completion of previous term. (SCC)

RT 412 - Advanced Cardiovascular Life Support Lab (1 cr)
This course is intended to provide hands on training of advanced cardiovascular life support techniques. Focus will be on application of skills relating to ECG interpretation, airway management, electrical therapy, cardiovascular pharmacology, CPR, and team member roles and responsibilities. Prerequisite: Successful completion of previous term. (SCC)

RT 413 - Advanced Pulmonary Diagnostics Technical Skills Lab (1 cr)
In this course the student will demonstrate pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics. Prerequisite: Successful completion of previous term. (SCC)

RT 415 - Disease Management (4 cr)
This course will introduce the student to contemporary disease management. Topics will include prevalent conditions among high risk patients, Global Initiative for Chronic Obstructive Lung Disease (GOLD) standard, National Asthma Education and Prevention Program (NAEPP), CardioSmart guidelines for congestive heart failure (CHF), and the management of obstructive sleep apnea (OSA). Prerequisite: Successful completion of previous term. (SCC)

RT 416 - Disaster Management (2 cr)
This course will introduce disaster management practices related to respiratory care. The focus will be on mass casualty events, pandemic events, chemical and biological agents, hospital triage systems, infection control processes, and care for patients with serious communicable diseases. Instruction will be delivered through a combination of didactic lecture and case study review. Prerequisite: Successful completion of previous term. (SCC)

RT 417 - Patient Management and Problem Solving Technical Skills Lab (1 cr)
This course introduces the application of respiratory care practices and procedures leading to patient problem solving including computer applications based upon the NBRC Therapist Multiple Choice (TMC) and Clinical Simulation (CS) exams with active student participation. Prerequisite: Successful completion of previous term. (SCC)

RT 421 - Critical Care Clinical II (5 cr)
This is the second in a series of Critical Care clinical courses perfecting skills in a critical acute care environment. Students will orientate to the facility, use electronic charting and deliver patient care including patient assessment, delivery of prescribed medications, participate in resuscitation, apply invasive ventilation, and draw arterial blood gases from arterial lines. A surgical rotation is offered to provide additional time in airway management, patient monitoring and medications, while observing thoracic and abdominal surgery. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to continue to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 423 - Advanced Pulmonary Diagnostics Clinical (1 cr)
In this course the student will demonstrate pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics in the acute care setting. Prerequisite: Successful completion of previous term. (SCC)

RT 424 - Pediatric/Neonatal Clinical (4 cr)
This course involves the Neonatal Critical Care, Pediatric Critical Care and Intermediate/General Pediatric patients. Students will orientate to the facility, use electronic charting and deliver patient care including patient assessment, delivery of prescribed medications, oxygen therapy and secretion removal, participate in resuscitation, apply invasive and non-invasive ventilation and monitoring, observe and assist with high risk newborn deliveries, and analyze cord, capillary, radial and arterial line blood gases. Written assignments include patient care plans, physician interactions and maintenance of clinical documentation. Students are expected to continue to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 433 - Advanced Clinical (5 cr)
This is the last clinical course. Students are expected to demonstrate proficiency in all clinical skills in a critical acute care, sub-acute/long term care, and home care settings on all patients in all areas both inside and out of the Critical Care Environments with or without invasive and non-invasive ventilator patients and attend one Pulmonary Rehab session. Students will gain instructor experience by mentoring lower level students (Jr), under the direction of a preceptor. A two day class project occurs during the last week where students set up and run the Respiratory Care Department with elected class supervisors under direct preceptor observation. Students will orientate or re-orientate to the facilities, use electronic charting or paper documents, and assist or directly deliver all respiratory patient care and patient transport on receiving end from local ambulance or helicopter. Written assignments include patient care plans, physician documentation, and maintenance of clinical documentation. Students are expected to continue to develop and display critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

ROBOTICS MECHATRONICS TECHNOLOGY

ROBO 111 - 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: Students must be accepted to Robotics Mechatronics Technology and concurrently enrolled in ROBO 112 and 113 (SCC)

ROBO 112 - 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: Students must be accepted to Robotics Mechatronics Technology and concurrently enrolled in ROBO 111 and 113. (SCC)

ROBO 113 - Computer Applications for Robotics (4 cr)
This class will cover computer construction, specification, file organization, internet resources, MS Word, MS PowerPoint, MS Excel, Famic Automation Studio, AutoCAD, and introduction to AutoDesk Inventor. Students must be accepted to Robotics Mechatronics Technology. (SCC)

ROBO 121 - 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: Students must be accepted to Robotics Mechatronics Technology and concurrently enrolled in ROBO 122, 123, and 124. (SCC)

ROBO 122 - 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: Must be accepted to Robotics Mechatronics Technology and concurrently enrolled in ROBO 121, 123, and 124. (SCC)

ROBO 123 - Print 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: Students must be accepted to Robotics Mechatronics Technology and concurrently enrolled in ROBO 121, 122, and 124. (SCC)

ROBO 124 - 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: Students must be accepted to Robotics Mechatronics Technology and concurrently enrolled in ROBO 121, 122, and 123. (SCC)

ROBO 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: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 121, 122, 123, 124, and be concurrently enrolled in ROBO 132, 133, and 134. (SCC)

ROBO 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. Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 122 & 111, and concurrently enrolled in ROBO 131, 133, and 134. (SCC)

ROBO 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: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 122 & 111, and be concurrently enrolled in ROBO 131, 132, and 134. (SCC)

ROBO 134 - Industrial Technology Drawing (2-2 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: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 122 & 111, and be concurrently enrolled in ROBO 131, 132, and 133. (SCC)

ROBO 241 - Hydraulic Circuits (4 cr)
Students learn the principles of circuits, components and fluid line sizing. Estimating costs for materials is introduced. Prerequisites: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 131, and be concurrently enrolled in ROBO 242, 243, 244, and 245. (SCC)

ROBO 242 - 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: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 131, and be concurrently enrolled in ROBO 241, 243, 244, & 245. (SCC)

ROBO 243 - 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: Students must be accepted to Robotics Mechatronics Technology and successfully completed ROBO 131. (SCC)

ROBO 244 - 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: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 131, and be concurrently enrolled in ROBO 241, 242, 243, and 245. (SCC)

ROBO 245 - Electronic Valve Technology (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: Students must be accepted to Robotics Mechatronics Technology and successfully completed ROBO 111 or permission of instructor. (SCC)

ROBO 251 - Advanced Pneumatics Theory (3 cr)
Students learn energy and air consumption; pneumatic automation components; pneumatic system design and vacuum system and applications. Prerequisites: Students must be accepted to Robotics Mechatronics Technology students and concurrently enrolled in ROBO 252, 253, 254, 255 & 256. (SCC)

ROBO 252 - Advanced Pneumatics Lab (2 cr)
Students learn energy and air consumption; pneumatic automation components; pneumatic system design and vacuum system and applications. Prerequisites: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 131 and be concurrently enrolled in ROBO 251, 253, 254, 255, 256. (SCC)

ROBO 253 - 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: Students must be accepted to Robotics Mechatronics Technology and be concurrently enrolled in ROBO 251, 252, 254, 255, and 256. (SCC)

ROBO 254 - 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. Prerequisites: Students must be accepted to Robotics Mechatronics Technology and be concurrently enrolled in ROBO 251, 252, 253, 255, and 256. (SCC)

ROBO 255 - Velocity and Load Calculations (1 cr)
This course content relates to load velocities and kinetic energy; moment load calculations and force requirements. Prerequisite: Students must be accepted to Robotics Mechatronics Technology and be concurrently enrolled in ROBO 251, 252, 253, 254, and 256. (SCC)

ROBO 256 - Advanced Machine Controls (5 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. Students must be accepted to Robotics Mechatronics Technology and successfully completed ROBO 131. (SCC)

ROBO 261 - 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: Students must be accepted to Robotics Mechatronics Technology and successfully completed the first year of the program, or instructor permission. (SCC)

ROBO 262 - Industrial Applications and Sales (5 cr)
This course introduces controlled selling techniques required for successful fluid power sales. Computerized inventory control methods are included. Prerequisites: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 241, and be concurrently enrolled in ROBO 263 & 264. (SCC)

ROBO 263 - Hydraulic Circuit Design (3 cr)
This course offers practical shop experience in the construction of a hydraulic circuit design from an automated machine specification. Prerequisites: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 241, and be concurrently enrolled in ROBO 262 & 263. (SCC)

ROBO 264 - Hydraulic Manifold Design (5 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. Prerequisites: Students must be accepted to Robotics Mechatronics Technology, successfully completed ROBO 241, and be concurrently enrolled in ROBO 262 and 263. (SCC)

ROBO 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: Students must be accepted to Robotics Mechatronics Technology and receive permission of instructor/coordinator. (SCC)

ROBO 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. Prerequisite: Students must be accepted to Robotics Mechatronics Technology or Electrical Maintenance and Automation. (SCC)

ROBO 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. Prerequisite: Students must be accepted to Robotics Mechatronics Technology or Electrical Maintenance and Automation. (SCC)

ROBO 273 - Hydraulic Theory (2-5 cr)
This course introduces basic hydraulic theory. Students learn to identify and apply components in a hydraulic system. Prerequisite: Students must be accepted to Robotics Mechatronics Technology or Electrical Maintenance and Automation. (SCC)

ROBO 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. Prerequisites: Students must be accepted to Robotics Mechatronics Technology or Electrical Maintenance and Automation. (SCC)

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. Course delivery is provided by the Salish School of Spokane; credit is awarded through an Academic Credit for Prior Learning (ACPL) crosswalk agreement with SFCC. (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. Course delivery is provided by the Salish School of Spokane; credit is awarded through an Academic Credit for Prior Learning (ACPL) crosswalk agreement with SFCC. Prerequisite: SAL 101. (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. Course delivery is provided by the Salish School of Spokane; credit is awarded through an Academic Credit for Prior Learning (ACPL) crosswalk agreement with SFCC. Prerequisite: SAL 101 and 102. (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. (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. (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. Cross-listed with PSYC 204. Credit will not be granted for both. 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. (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. (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. (SFCC, 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 273 - Introduction to Social Work (5 cr)
This course explores the history of social work and social welfare in the United States. Students will gain an understanding of values and ethics related to social work practice social work interventions related to issues of social justice, oppression and discrimination. This course is designed to familiarize the student to social work's historical roots as well as to expose him/her to the knowledge, values and skills required for social work practice in diverse settings with different client groups. (SFCC)

SPANISH

SPAN& 121 - Spanish I (5 cr)
This course is an introduction to the Spanish language, and to Hispanic traditions and cultures using the most modern methods of language learning with emphasis on grammar and vocabulary needed to communicate at the beginner level. SPAN& 121 is recommended for language learners who have never taken Spanish before. It is also recommended for learners who have taken less than 1 year of Spanish or if more than a year has passed since the coursework was completed. (SCC, SFCC)

SPAN& 122 - Spanish II (5 cr)
This course is a continued introduction to the Spanish language, and to Hispanic traditions and cultures using the most modern methods of language learning with emphasis on grammar and vocabulary needed to communicate at the beginner intermediate level. SPAN& 122 is recommended for those who have successfully completed 1 year of High School Spanish, or 1 quarter of college Spanish. Prerequisite: A grade of 1.5 or higher in SPAN& 121 or permission of instructor. (SCC, SFCC)

SPAN& 123 - Spanish III (5 cr)
This course is a continued introduction to the Spanish language, and to Hispanic traditions and cultures using the most modern methods of language learning with emphasis on grammar and vocabulary needed to communicate at the beginner advanced level. SPAN& 123 is recommended for those who have successfully completed 2 years of High School Spanish, or 2 quarters of college Spanish. Prerequisite: A grade of 1.5 or higher in SPAN& 122 or permission of instructor. (SCC, SFCC)

SPAN& 221 - Spanish IV (5 cr)
This course features an intensive review of the Spanish language, plus emphasis on Hispanic cultures and the idiomatic usage of the language, both oral and written. SPAN& 221 is recommended for those who have successfully completed 3 years of High School Spanish, or 1 year of college Spanish, or speak Spanish regularly in the home. Prerequisite: A grade of 1.5 or higher in SPAN& 123 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. SPAN& 222 is recommended for those who have successfully completed 3+ years of High School Spanish, or 4 quarters of college Spanish. Prerequisite: A grade of 1.5 or higher in 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. SPAN& 223 is recommended for those who have successfully completed 3+ years of High School Spanish, or 5 quarters of college Spanish. Prerequisite: A grade of 1.5 or higher in SPAN& 222 or permission of instructor. (SCC, SFCC)

SPAN 241 - Spanish Conversation and Culture (2 cr)
A course in which students will have the opportunity to increase their vocabulary, to improve their speaking ability, and to gain more confidence in using previously studied grammatical concepts. Conducted in Spanish. Prerequisite: SPAN 121 or concurrent enrollment in SPAN 121 or 122 or 123 or permission of instructor. (SFCC, SCC)

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 prerequisite. Prerequisite: Two years of college-level Spanish (SPAN& 223) or equivalent. (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: HED 125, SURG 100, 120. (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 HED 125, SURG 100. (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 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)

UTILITY CONSTRUCTION

UTIL 101 - Utility Construction I (11 cr)
This course introduces students to the utility construction basics. Safety training and fundamentals of electricity are emphasized. The safe Operation of a variety of equipment is covered. (SCC)

UTIL 102 - Utility Construction II (11 cr)
This course continues with the concepts introduced in UTIL 101. Demonstrating appropriate safety techniques is emphasized. Applying electrical principles and theories, interpretation of job prints and standards and radio communications is stressed. (SCC)

UTIL 103 - Gas or Line Construction (21 cr)
This course continues with advanced concepts in utility construction either gas or line construction. Advanced concepts in electricity and interpretation of job prints and standards are emphasized. Certifications and CDL License, Class A earned. (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 105 - Introductory Echocardiographic Technical Skills (1 cr)
Introduction to the basic principles, anatomical identification, measurement, and application of echocardiography. The anatomy, image assessment, and hemodynamics of cardiac ultrasound are emphasized. (SCC)

VASC 112 - Vascular Fundamentals (3 cr)
This course is an introduction to basic vascular anatomy of the upper and lower extremities, abdomen, visceral organs, and cerebral vasculature with emphasis on the physiology and pathophysiology of these systems. Must be concurrently enrolled in VASC 115. (SCC)

VASC 115 - Vascular Fundamentals Technical Skills (2 cr)
This course is an introduction to the concepts essential for the performance and interpretation of vascular exams of the upper and lower extremities, abdomen, visceral organs, and cerebral vasculature. Basic imaging techniques and hemodynamic analysis is included in this laboratory course. (SCC)

VASC 118 - Cardiovascular Physiology I (2 cr)
This course is an introductory study of normal cardiovascular physiology principles. Emphasis is placed on cardiac anatomy and structure, electrical system, the heart as a pump, cardiac output, and basic hemodynamics. (SCC)

VASC 121 - Technical Skills/Vasc Procedures I (2 cr)
This course is a continuation of the concepts essential for the performance and interpretation of vascular exams of the upper and lower extremities, abdomen, visceral organs, and cerebral vasculature. Basic imaging techniques and hemodynamic analysis, as well as instrumentation commonly used in the vascular laboratory, are included in this laboratory course. (SCC)

VASC 122 - Vascular Procedures I (3 cr)
This course discusses the basic vascular procedures used to assess the upper and lower extremities, abdominal vasculature, visceral organs, and cerebral vasculature with emphasis on the ultrasonic examinations of these systems. Admission to the program and concurrent enrollment in VASC 121. (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 127 - Technical Skills/Pharmacology (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 VASC 117. Prerequisite: Permission of instructor. (SCC)

VASC 130 - Echo Fundamentals Lab (2 cr)
This course is a continuation to the concepts essential for the performance and interpretation of echocardiographic exams. Emphasis is placed on anatomy, image assessment, hemodynamics, and clinical applications of cardiac ultrasound in this laboratory course. Concurrent enrollment in VASC 133. (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 a continuation of VASC 122. Students are exposed to more detailed vascular procedures used to assess the upper and lower extremities, abdominal vasculature, visceral organs, and intra- and extracranial cerebral vasculature. Emphasis is placed on the ultrasonic and hemodynamic examinations of these systems. Concurrent enrollment in VASC 134. (SCC)

VASC 133 - ECHO Fundamentals (4 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)

VASC 134 - Vascular Technical Skills I (4 cr)
The student will develop intermediate 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 on the development of essential skills in the performance of all vascular technology imaging techniques. Concurrent enrollment in VASC 132. (SCC)

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 136 - Comparative Imaging Analysis (3 cr)
The student will be exposed to normal anatomy and pathology cases that combine diagnostic medical sonography, computed tomography, magnetic resonance imaging and angiography. The student will gain an understanding of how diagnoses are made and patients are managed on the basis of findings from multiple imaging modalities. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 132, 134. (SCC)

VASC 138 - Cardiovascular Physiology II (3 cr)
This course is a continuation of the study of normal cardiovascular physiology principles. Emphasis is placed on advanced hemodynamics, peripheral circulation control, the microcirculation and lymphatics, coronary blood flow, special circulations, and pathophysiology of cardiovascular disease states. (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 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 213 - Electrocardiography (3 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 vascular technology program or permission of instructor. (SCC)

VASC 214 - Electrocardiography Lab (1 cr)
Introduction to the field of cardiovascular technology, basic cardiac anatomy, physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences will support these concepts and provide simulated clinical situations and effective performance on the modality. Prerequisite: Admission to program. (SCC)

VASC 251 - Vascular Technical Skills (5 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 (4 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 examination is presented. (SCC)

VASC 253 - Vascular Clinical I (10 cr)
Students obtain hands-on experience in hospital and/or clinic environments. The development of clinical techniques in the utilization of current vascular technology instrumentation in the evaluation of acquired vascular disease is emphasized. Students apply the principles of medical and legal ethics and professionalism to the patient, physician, and other members of the allied health team. Clinical case reports are required. (SCC)

VASC 254 - Vascular Clinical Preparation (4 cr)
Students review all course materials in the first year with application on the clinical setting. Students develop skills at identification of both normal and abnormal images. The course is aligned with technical skills laboratory experience to allow students to develop clinical skills prior to assignment in a clinical setting. (SCC)

VASC 255 - Research Methods and Biostatistics (3 cr)
This course will discuss the basic principles of epidemiology and descriptive biostatistics as they apply to echocardiography and vascular technology. Topics include basic statistics, disease occurrence and recurrence, patterns and trends in a population, and interpretation of results. Prerequisite: Admission to program and concurrent enrollment in VASC 251, 252, 253, 254. (SCC)

VASC 256 - Cardiovascular Pathophysiology (1 cr)
This course describes the pathophysiology of cardiovascular diseases, their diagnosis and treatment. Presented as a series of physician lectures. Prerequisite: Enrollment in vascular technology program or permission of instructor. (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 263 - Vascular Seminar and Registry Preparation I (1 cr)
This course will provide a review of all program course content as related to registry preparation for the Sonographic Principles and Instrumentation and Vascular Technology registry examinations. Students will participate in registry preparation testing and activities, including clinical case studies, clinical experience summaries, and clinical portfolios. (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 273 - Vascular Seminar and Registry Preparation II (1 cr)
This course will provide continued review of all program course content as related to registry preparation for the Sonographic Principles and Instrumentation and Vascular Technology registry examinations. Students will participate in registry preparation testing and activities, including clinical case studies, clinical experience summaries, and clinical portfolios. (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)

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 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, 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 132 - Hydrologic Field Projects (1-3 cr)
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 133 - Hydrologic Field Projects (1-3 cr)
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 135 - Intro to Water and Wastewater (3 cr)
Introduction to water and wastewater concepts, applications, and associated mathematical calculations. (SCC)

WATER 205 - Differential Leveling (3-5 cr)
This course introduces principles of differential levelling emphasizing common applications in Environmental Sciences field investigations, such as cross sectional and longitudinal profiles. Prerequisite: NATRS 122. (SCC)

WATER 208 - Water Data and Records Analysis (3 cr)
A survey of the fundamentals of understanding and using hydrologic data including computational techniques, data analysis/interpretation, and graphical representations. Spreadsheet applications in stream gaging, water distribution, and wastewater are emphasized. (SCC)

WATER 209 - Water Quality (5 cr)
Introduction to common water quality parameters encountered in all disciplines of environmental science, hydrology, and water and wastewater operation. Students will understand natural and human influences on water quality parameters, hydrology, stormwater, and related state and federal regulations. Water quality field sampling techniques and laboratory procedures are practiced including a heavy emphasis on proper use, care, maintenance, and troubleshooting of standard field and laboratory equipment. (SCC)

WATER 210 - Hydrologic Measurement (3 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 Law & Policy (5 cr)
Students will gain a basic understanding of the laws and regulations governing surface water, public water supply, wastewater treatment, stormwater, and the remediation of environmental contamination. (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 231 - Hydrologic Field Projects (1-3 cr)
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 232 - Hydrologic Field Projects (1-3 cr)
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 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 55 hours of cooperative education hours worked during a quarter. (SCC)

WELDING AND FABRICATION

WELD 104 - Welding and Fabrication Basics (5 cr)
Students learn the basic concepts of welding and fabrication. (SCC)

WELD 113 - Welding Math (1-3 cr)
This course introduces theory and practical application utilizing formulas to solve problems encountered in the fabrication industry. This course may be repeated up to three times for a total of three credits. Prerequisite: Concurrent enrollment in WELD 114, 115, 116, 117 or permission of instructor. (SCC)

WELD 114 - Introduction to Blueprint Reading (2 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 (3 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 (3 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 121 - Intermediate Welding Math (1 cr)
This intermediate course continues with theory and practical application utilizing formulas to solve problems encountered in the fabrication industry. Concurrent enrollment in WELD 114, 115, 116, 117 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 (3 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 (1-7 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. 1-7 credits prior learning credits may be applied totaling no more than seven credits. Prerequisite: Concurrent enrollment in WELD 123, 124, 126 or permission of instructor. (SCC)

WELD 126 - Intermediate Fabrication (3 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 127 - Fabrication Machine Operation (2 cr)
Students learn the safe and proper way to set up and use various fabrication machines commonly found in a production setting. The machines used may include: Iron worker shear and punch, horizontal band saw, chop saw, drill press, grinders, tubing bender, ring roller. (SCC)

WELD 131 - Advanced Welding Math (1 cr)
This advanced course continues with 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 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 (3 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 (7 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 (3 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 143 - Specialized Blueprint (2 cr)
Students will work from progressively more complex blueprints and build parts from them. (SCC)

WELD 144 - Specialized Theory (3 cr)
In depth study of the theory of specialty processes such as pulsed spray GMAW and aluminum GMAW. Prerequisite: Completion of 2nd and or 3rd quarter of Welding and Fabrication program. (SCC)

WELD 145 - Specialized Fabrication (3 cr)
Students will fabricate from blueprints finished beams and small columns. Prerequisite: Completion of 2nd and/or 3rd quarter of Welding and Fabrication program. (SCC)

WELD 146 - Specialized Welding (1-7 cr)
Students will weld on structural shapes and parts as they would in a shop environment. Prerequisite: Completion of 2nd and/or 3rd quarter of Welding and Fabrication program. (SCC)

WELD 151 - HEQ Welding I (3 cr)
In this course, students will learn proper safety and fundamentals of oxy-fuel cutting and shielded metal arc welding as it relates to the heavy equipment repair field. (SCC)

WELD 152 - HEQ Welding II (3 cr)
In this course, students will learn proper safety and fundamentals of gas metal arc welding, flux cored arc welding, and air carbon arc cutting as it relates to the heavy equipment repair field. (SCC)

WELD 153 - HPAT Welding (3 cr)
In this course, students will learn proper safety and fundamentals of oxy-fuel cutting and shielded metal arc welding as it relates to the hydraulic and pneumatic field. (SCC)

WELD 154 - CNC Welding (1 cr)
In this course, students will learn safety and fundamentals of shielded metal arc welding, gas metal arc welding, and gas tungsten arc welding as it relates to the machining field. (SCC)

WELD 155 - Auto Welding (1 cr)
In this course, students will learn proper safety and fundamentals of oxy-fuel cutting, gas metal arc welding, and gas tungsten arc welding as it relates to Automotive repair field. (SCC)