Print Date: 7/29/2014

Course Objectives/Course Outline
Spokane Community College

Course Title: **PRINCIPLES OF AVIONICS**
Prefix and Course Number: **ELECT 245**

Course Learning Outcomes:
By the end of this course, a student should be able to:

- Know and use all the personnel and equipment safety standards and procedures.
- Know and understand the applicable federal aviation regulations for avionics
- Know which government agencies are involved in avionics technical careers
- Know and understand the applicable FCC regulations and requirements for avionics
- Use avionics terminology correctly.
- Understand the principles of avionics systems
- Understand the principles of weight and balance in avionics
- Understand the principles of flight

COURSE OUTLINE:

I. Introduction
   A. Class Organization
   B. Grading
   C. Department Policies
   D. Attendance
   E. Safety
II. Personal Safety
   A. Electrical Shock
   B. Eye Protection
III. Equipment Protection
   A. Static Electricity
   B. Liquids
   C. Cables
IV. Survey of Avionics
   A. Early Development of Aviation Electronics
   B. Federal Aviation Regulations
   C. Government Agencies
   D. Job Opportunities
   E. Principles of Flight
V. Avionics Systems
   A. Communications Systems
   B. Low Frequency Navigation Systems
   C. VHF Navigation Systems
   D. Rho-Theta Navigation Systems
   E. Landings Systems
   F. Surveillance Systems

- G. Flight Control
- H. Pitot Static Systems
- I. Electrical
- J. Compass Systems
- K. Altimeter Systems

VI. FAA Regulations
- A. Part 43
- B. Part 91

VII. FCC Requirements

VIII. Weight and Balance