

Course Objectives/Course Outline
Spokane Community College

Course Title: Electrical and Mechanical Systems
Prefix and Course Number: ARCHT 134

Course Learning Outcomes:

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

- Demonstrate understanding of the basic concepts of building heating, ventilating, and air conditioning systems, heat transfer, water supply, drainage, and power and lighting systems for buildings
- Solve simple electrical and mechanical design problems
- Interpret electrical and mechanical drawings used in building design

Course Outline: Electrical and Mechanical Systems- ARCHT 134

- I. Water Supply Systems
 - A. Sources
 - B. Distribution
 - C. Water supply Design
 - D. Hot Water Design and Equipment
- II. Plumbing Drainage
 - A. Fundamentals and Equipment
 - B. Pipes and Fittings
 - C. Plumbing Fixtures
 - D. Public and Private Sewage Disposal Systems
- III. Storm Drainage Systems
 - A. Types of Systems
 - B. Roof Drainage
 - C. Foundation Drains
- IV. Heating and Air-Conditioning Systems
 - A. Types of Systems
 - B. Fuels
 - C. Properties and Transmission of Heat
 - D. Heating Systems
 - E. Air Conditioning Systems
- V. Electrical Systems
 - A. Fundamentals and Equipment
 - B. Design of Wiring Systems
- VI. Lighting Systems
 - A. Terminology
 - B. Electric Lamps
 - C. Lighting Systems
 - D. Principles of Design