

Print Date: 3/27/19
Course Objectives/Course Outline
Spokane Community College

Course Title: Engineering Physics I
Prefix and Course Number: PHYS 201

Course Learning Outcomes:

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

- Explain physics principles and state pertinent facts to a selection of the following topics:
 - Mechanics
 - Thermodynamics
 - Waves
 - Optics
 - Fluids
 - Electricity
 - Magnetism
 - Relativity
 - Quantum
 - High energy
- Solve problems using physics principles and facts
- Recognize how physics applies to related areas
- Perform laboratory experiments, record observations, gather and analyze data, and present the results in written form

Course Outline:

The course is organized in the following units and roughly follows the adopted textbook. A minimum of 8 laboratory activities will be carried out in addition to course work.

- Measurement, units and dimensional analysis
- Motion along a straight line
- Vectors
- Motion in two and three dimensions
- Force and Motion- I
- Force and Motion – II
- Kinetic energy and work
- Potential energy and conservation of energy
- Center of mass and linear momentum
- Rotational motion
- Rolling, torque, and angular momentum
- Equilibrium and elasticity
- Gravitation
- Fluids