



NORTHWEST FLORIDA STATE COLLEGE

Course Syllabus

Course Name: General Physics with Calculus

Course Number: PHY2048C

Section: 10551

Credit Hours: 4

Instructor Name: Dr. Christopher Sweeney

Instructor Office Location: 350/209 Niceville Campus

Instructor Email: sweeneycnwfsc.edu

Course Curriculum

This calculus-based course serves as the first in a two-part series, covering topics like kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. Designed for science and engineering majors, the course integrates critical thinking, analytical skills, and real-world applications.

Goals

Include broad learning goals such as "Students will develop an appreciation of the different genres of classical art."

Objectives

Student Learning Outcomes:

- *Students will solve analytical problems describing different types of motion, including translational, rotational, and simple harmonic motion.*
- *Students will apply Newton's laws, and conservation laws to solve analytical problems of mechanics.*
- *Students will identify and analyze relevant information presented in various formats such as graphs, tables, diagrams, and/or mathematical formulations.*
- *Students will solve real world problems using critical thinking skills and knowledge developed from this course.*

Student Expectations of the Course

Include what experiences students might expect to have as part of the course. Examples: The instructor will be available outside of class to answer questions. Participation is required.

How Student Performance Will be Measured

How the instructor plans to measure student performance (essays, in-class assignments, multiple choice exams, etc.)