

Physics-I

Professor: Dr. Christopher Wozny

Office:Norton J-316

Office Hours: Tuesday and Thursday, 1:00 - 2:00 PM Monday and Wednesday,
10:00 - 11:00 AM

Course Description

Principles of Physics I and Laboratory is a 4 semester credit hour calculus-based introductory course which will include material from mechanics and waves. This course has a laboratory component that requires the purchase or acquisition of a limited amount of materials and equipment to complete the activities. Students enrolling in eCore lab science courses are advised to consult their transferring institution concerning the transferability of course credits.

Goals

- ☐ Understand and apply the laws and concepts associated with physics by solving word problems.
- ☐ Perform simple laboratories and reach appropriate conclusions
- ☐ Represent data graphically by hand and computer.

Course Materials

- OpenStax University Physics, Vol. 1

Course Breakdown

- Unit 1: Measurement and Vectors
 - Lesson 1: Measurement
 - Lesson 2: Vectors
- Unit 2: Kinematics
 - Lesson 3: One Dimensional Motion
 - Lesson 4: Two Dimensional Motion
- Unit 3: Dynamics
 - Lesson 5: Newton's Laws of Motion
 - Lesson 6: Applications of Newton's Laws
- Unit 4: Vibrations and Waves
 - Lesson 7: Vibrational Motion
 - Lesson 8: Wave Motion
- Unit 5: Conservation Laws
 - Lesson 9: Work and Energy

- Lesson 10: Impulse and Momentum
- Unit 6: Rotation Motion
 - Lesson 11: Rotational Motion
 - Lesson 12: Static Equilibrium

Grading Components

Component	Weight	Due Dates
Homework	20%	Sunday Night
Labs	20%	Saturday Night
Quizzes	20%	Saturday Night
Midterm	15%	Tuesday Night
Final	10%	October 9th
Discussion	9%	Wednesdays
Challenge Questions	5%	Sunday Night
Attendance	1%	8/20