# Eastern Oregon University Course Syllabus

Number of Course: PHYS 201

Name of Course: General Physics w/Algebra

**Catalog Description**: An introductory college physics sequence for those whose majors are not in the physical sciences or engineering, which includes the principles of mechanics, waves, sound, thermodynamics, electricity, magnetism, optics, relativity, and quantum theory.

Credit Hours: 4

# **Required Texts or Suggested Materials:**

Are available at: <a href="http://eou.bncollege.com/">http://eou.bncollege.com/</a>

Prerequisites: MATH 111, 112, or equivalent. Co-requisite: PHYS 201L

## **Learning Outcomes:**

The student should cement their ability to do the following:

Outcome L1: To develop a qualitative understanding of mechanics as embodied by Newton's Laws of Motion.

Outcome L2: To mathematically manipulate and apply Newton's Laws quantitatively to common problems in mechanics.

Outcome L3: To relate their quantitative and qualitative understanding of mechanics to other disciplines (such as biology and chemistry).

Outcome L4: To develop an ability to make appropriate use of scientific skills, tools, and resources, especially to create physical models, design and perform physics-related experiments, analyze data, and determine the validity of the proposed model which may involve simulation.

#### **Course Requirements:**

Prior notification is required for excused absences. Extreme circumstances are required in order to be excused from a scheduled examination, and furthermore, arrangements must be worked out with the instructor (not the chair, secretary, etc.) prior to the examination time. While there is no penalty for absences, extra credit will be given to students who miss class 3 or fewer times.

#### Student Athlete Policies:

Student Athletes are required to give their instructor a list of game times/class times when will miss due to athletic travel. Student Athletes should be made aware that there is a Faculty Athletic Representative who should be consulted any time that have concerns, but especially when there is a conflict between the instructions given by a faculty member and a coach. The Faculty Athletic Representative contact information is available at:

http://www.eousports.com/staff.aspx?tab=staffdirectory

#### **Grading Policies:**

Performance on regular lecture examinations, laboratory assignments and examinations,

homework and problem assignments, and a comprehensive final exam are used to determine the grade for the course, as follows:

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Lab	20%
Homework	20%
Midterms (3)	30%
<u>Final Exam</u>	30%
Total	100%

Grading Scale (+/- grades will be used)

90% A 75% B 65% C 55% D

#### Means of Assessment:

Students will be assessed using the following methods:

Outcomes L1, L2, L3, G1, G2, G3: Examinations, Quizzes, and Homework are used to determine students' fundamental understanding of physical law.

Outcomes L2, L3, G2: Formal laboratory experiments are performed by the students. Accompanying laboratory reports are required.

Outcome L4: Construction of laboratory experiments and analysis of laboratory data involve extensive use of scientific skills, tools, and resources used by physicists, including computer simulation.

#### **Brief Outline of Course:**

- 1. Dimensional Analysis
- 2. Elementary Motion
- 3. Newton's Laws
- 4. Projectile Motion
- 5. Work and Energy

#### **General Education Category and Outcomes**:

Students receive GENERAL EDUCATION CORE (GEC) — Natural, Mathematical, and Information Science Category credit for successful completion of this course with a grade of C- or better. Each Eastern Oregon University GEC course is multi-faceted and accomplishes many of the GEC outcomes. However, the following are those GEC outcomes are primarily emphasized in this course. The student should cement their ability to do the following:

Outcome G1: (Content Knowledge) Learn and use the vocabulary, content, and conceptual knowledge in a variety of disciplines.

Outcome G2: (Inquiry) Employ approaches to inquiry from a variety of disciplines.

Outcome G3: (Critical Thinking) Think clearly, critically, and effectively, taking into consideration purpose, audience, and occasion.

Outcome G4: (Problem Solving & Discounties, Mathematical, or computer information systems for problem solving.

## Writing Center Statements:

#### For on-campus courses

The Writing Center provides a place — physical or virtual — where every EOU writer can find an interested, responsive reader. Writing tutorials are free of charge for EOU's undergraduate and graduate students who are writing for any course at any level, or who are writing resumes, job letters, graduate applications, and more. Go to <a href="mailto:eou.mywconline.com">eou.mywconline.com</a> to schedule an appointment in the Writing Center (Loso Hall 234).

#### For online or on-site courses

The Writing Center provides a place — physical or virtual — where every EOU writer can find an interested, responsive reader. Writing tutorials are free of charge for EOU students writing for any undergraduate course. Go to **EOU's eTutoring page** to submit a paper to a writing tutor.

# For graduate courses

The Writing Center provides a place — physical or virtual — where every EOU writer can find an interested, responsive reader. Writing tutorials are free of charge for EOU students writing for any graduate course. Go to **EOU's eTutoring page** to submit a paper to a writing tutor. Click on **Graduate Students How To** for information about tagging your submission.

#### **Classroom Decorum:**

# **Academic Misconduct Policy:**

Eastern Oregon University places a high value upon the integrity of its student scholars. Any student found responsible for an act of academic misconduct (including but not limited to cheating, unauthorized collaboration, fabrication, facilitation, plagiarism or tampering) may be subject to having his or her grade reduced in the course in question, being placed on probation or suspended from the University, or a combination of these. (Please see the Student Handbook online at <a href="http://www.eou.edu/sse/student-handbook/">http://www.eou.edu/sse/student-handbook/</a>).

## Accommodations/Students with Disabilities policy:

Any student who feels he or she may need an accommodation for any type of disability, must contact the Disability Services Office in Loso Hall, Room 234. Phone: 541-962-3081.

# Disclaimer:

This standard syllabus provides only general information on the course. For those enrolled in the course a detailed syllabus will be provided by the Instructor at the beginning of the term. Please keep in mind that not all courses are offered every year. Consult Webster for scheduling information.

**Date**: 2018