University of North Georgia
College of Science and Mathematics
Department of Physics
PHYS 2211 - Principles of Physics I - Fall 2018

"The noblest pleasure is the joy of understanding." -Leonardo da Vinci

General Information
Instructor: Dr. Nathan Harrison
Office: Strickland 209
Email: Standard UNG email address
Office Hours: See the pdf file of my schedule.

Required Materials
Textbook: Physics for Scientists and Engineers 9th Edition w/ Webassign by Serway and Jewett
Scientific or graphing calculator, ruler, protractor, paper
GitHub account
SageMath (Cloud account or your own installation)
Java JDK 1.8 or greater

Course Description
This is a calculus based introduction to mechanics and is the first course in a two-semester Physics sequence that is a requirement for Physics and pre-Engineering majors. The prerequisite for this course is MATH 1450 with concurrent enrollment in MATH 2460 and PHYS 2211L (lab). The lecture is three credits while the lab is one credit. (see the lab syllabus for more details)

Course Content
We will be covering Part 1 ("Mechanics") of the textbook which consists of 14 chapters. We will cover approximately one chapter and one corresponding lab per week (see the lab syllabus for more details). A detailed schedule can be found at the end of this syllabus.

Expected Course Outcomes
The objective of the course is to have the student learn and be proficient in the application of the basic laws of mechanics. After having taken this course, the student should be able to:

1. interpret physical situations as stated in word problems
2. be able to identify the physical laws appropriate to the physical situation at hand
3. be able to use mathematics/physical law as a tool for predicting behavior of mechanical systems
4. be able to use computers/sensors as tools for experimental investigation of physical law
5. be able to represent physical systems in multiple representations, e.g. mathematically, pictorially, graphically, etc.
6. be able to use various technologies as tools for scientific endeavor

Means of Assessment and Grading Scheme

There will be several exams during the semester as well as several short quizzes. Exams will be announced at least one week in advance, quizzes may occasionally be unannounced. You will be provided with a "clicker" for answering in-class polls and practice problems; clicker questions will count as part of your participation grade. Homework assignments will be given on a fairly regular basis via WebAssign. The final exam is comprehensive and mandatory.

Average of quizzes and exams: 50%
WebAssign HW: 25%
Participation: 25%

Supplemental Syllabus

Please see https://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php for the following information:

1. Academic Exchange
2. Academic Integrity Policy
3. Academic Success Plan Program
4. Class Evaluations
5. Course Grades and Withdrawal Process
6. Disruptive Behavior Policy
7. Inclement Weather
8. Smoking Policy
9. Students with Disabilities

Additional Information

1. You will have to self-register with WebAssign in order to access the online homework. A "class key" is need to do this, it will be emailed to you during the first week of classes.
2. This syllabus may be adjusted if deemed necessary by the instructor.

Schedule (approximate)

* See the university schedule for important dates such as drop deadlines, etc.

Week	Date	Topics/Reading
1	8/20	ch. 1
2	8/27	ch. 2
3	9/3	ch. 3
4	9/10	ch. 4
5	9/17	Review, Exam 1
6	9/24	ch. 5
7	10/1	ch. 6
8	10/8	ch. 7-8
9	10/15	ch. 7-8
10	10/22	Review, Exam 2
11	10/29	ch. 9
12	11/5	ch. 10
13	11/12	ch. 11
Fall Break	11/19	
14	11/26	ch. 12-13
15	12/3	Review, Exam 3
Finals	12/10	Lecture & lab final, both cumulative