College Physics I

Force and Motion, Conservation Laws, Properties of Matter, Oscillations and Waves

Course Objectives

To help students develop (i) a good understanding of fundamental physical principles and (ii) skills to solve real-world physical problems associated with the topics. Lectures will include basic principles illustrated with examples. Students are expected to attend every lecture, and spend time reading the textbook and solving problems from the textbook to develop an excellent understanding of the physical principles and how they are applied to real-world problems.

Location and Time

Aderhold Learning Center 212 (TR, 11:00 AM - 12:15 PM)

Instructor

Dr. Mukesh Dhamala Office: 1 Park Place, Room #433 Phone: (404) 413-6043 Email: <u>mdhamala@gsu.edu</u> Web: <u>http://www.physics.gsu.edu/dhamala/dhamala.html</u> Office hours: Tuesday and Thursday: 12:30 – 1:30PM <u>Textbook</u> College Physics by Knight, Jones and Field (3rd Edition, 2015) (Chapters:1-10,14,11,12, 13, 15)



Laboratory - NSC 226

Please follow the information from this website: <u>http://www.physics.gsu.edu/butler/labs/index.html</u> Labs start in the first week of the semester. A pencil and Panther ID needed on the first day.

<u>Grading</u>

Final Grade = 75% (Lecture) + 25% (Laboratory) 75% (Lecture) = 10% (homework)+ 5% (class quiz) + 30% (2 Tests) + 30% (Final Exam) Letter Grades: A= 4.0, A-, B+, B= 3.0, B-, C+, C=2.0, C-, D=1.0, F =0.0 (x+/- =x +/-0.33)

Reading Quizzes and Homework

Reading quizzes and homework assignments will be posted online and graded by using MasteringPhysicssystem. You will need to register in <u>MasteringPhysics</u> (<u>http://www.masteringphysics.com/</u>) if you have not done so. To do this, you need to know your ACCESS CODE which is included with your textbook, or can be obtained from online from the publisher. To enroll in this course, here is the ID you will need: **MPDHAMALA1111SPRING17**

Class Quizzes

There will be a short in-class quiz anytime during a lecture. You will be graded for participation and correctness.

Test I & II (in-class) February 9 and March 9

<u>Final Exam</u> April 27, 10:45 AM

Course evaluation

Constructive assessment of this course from students plays an indispensable role in shaping education at Georgia State. Upon completing the course, students are requested to fill out the online course evaluation.

Disability Services

Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which an accommodation is sought.

Honor code

It is the responsibility of the students to abide by the GSU academic honesty policy.

Tentative Schedule of Topics

Week	Chapter	Contents
1	1,2	Representing Motion, Motion in 1D
2	2, 3	Motion in 1 D, Vectors and Motion in 2D
3	4, 5	Forces, Newton's laws and Applications
4	5, 6	Circular motion, orbits, Gravity
<mark>5 (Feb 9)</mark>	Review and TEST I	Chapters 1- 5 Covered
6	6, 7	Circular motion, orbits, Gravity Rotational Motion
7	8	Equilibrium and Elasticity
8	9	Momentum
9	10	Energy and Work
9 (March 9)	Review and TEST II	Chapters 6-9 covered
10, 11	10, 14	Engergy and work, Oscillations
12	14, 11	Oscillations, Using energy
13	11, 12, 13, 15	Selected Topics/sections
14	Review	Selected Chapters
<mark>April 27</mark>	10:45 AM	Final Exam (All chapters covered)

Here is the link to GSU academic calendar for the entire academic year:

http://registrar.gsu.edu/files/2015/10/2016-2017-At-A-Glance-Semester-Calendars.pdf January 16 (MLK), Feb 28 (Midpoint), Spring Break (March 13 – 19), April 24 (class ends), May 4 (Grades in)

Approximate % Scale for Letter Grades

97 > 91 > 87	A+ > A > A-
87 > 81 > 77	B+ > B > B-
77 > 71 > 67	C+ > C > C-
60 - 67	D
< 60	F