

PRINCE GEORGE'S COMMUNITY COLLEGE

GENERAL PHYSICS I

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| PHY 103 | Instructor: | Dr. D. Simpson |
| Section 4375 | Office: | 310-K Chesapeake Hall |
| Fall 2006 | Office Hours: | Tue & Thu 5:30-6:00 pm |
| Tue & Thu 6:00-7:50 pm CH-110 | Telephone: | (301) 322-0990 ext. 4768 |
| | Email: | PGCCPHY@att.net |

Course Web site: <http://PGCCPHY.home.att.net/103/>

Textbook Web site: <http://www.pse6.com>

Textbooks:

Physics for Scientists and Engineers, Volume 1, 6th ed., R.A. Serway and J.W. Jewett. Brooks/Cole, 2004.

Student Solutions Manual and Study Guide to Accompany Physics for Scientists and Engineers, Volume 1, 6th ed., R.A. Serway and J.W. Jewett. Brooks/Cole, 2004. (Optional.)

Recommended Reference:

The Feynman Lectures on Physics (3 vol.), R.P. Feynman, R.B. Leighton, and M.L. Sands. Addison-Wesley, 1963.

Course Description:

This course is a calculus-based study of classical mechanics, including laws of motion, force, energy and momentum, and gravitation.

Prerequisite: Calculus I (MAT 241)

Co-requisite: Calculus II (MAT 242)

Tentative Schedule

| Week | Dates | Topics | Chapters |
|------|----------------------|---------------------------------|----------|
| 1 | Tu 8/29 Th 8/31 | Math Review; Measurement | App B; 1 |
| 2 | Tu 9/5 Th 9/7 | Kinematics (1D) | 2 |
| 3 | Tu 9/12 Th 9/14 | Vectors | 3 |
| 4 | Tu 9/19 Th 9/21 | Kinematics (2D) | 4 |
| 5 | Tu 9/26 Th 9/28 | Newton's Laws | 5 |
| 6 | Tu 10/3 Th 10/5 | Circular Motion | 6 |
| 7 | Tu 10/10 Th 10/12 | Work & Kinetic Energy | 7 |
| 8 | Tu 10/17 Th 10/19 | Potential Energy | 8 |
| 9 | Tu 10/24 Th 10/26 | - No Class - Linear Momentum | 9 |
| 10 | Tu 10/31 Th 11/2 | Linear Momentum | 9 |

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|----|----------------------|---------------------------------------|----|
| 11 | Tu 11/7 Th 11/9 | Rotational Motion | 10 |
| 12 | Tu 11/14 Th 11/16 | Angular Momentum | 11 |
| 13 | Tu 11/21 Th 11/23 | Gravitation - Thanksgiving Break - | 12 |
| 14 | Tu 11/28 Th 11/30 | Orbits | 12 |
| 15 | Tu 12/5 Th 12/7 | Fluid Mechanics | 14 |
| 16 | Tu 12/12 Th 12/14 | No class (exam week) Final Exam | |

Homework:

Weekly problem assignments will be given every Tuesday and will be due the following Tuesday at the beginning of class. No late homework will be accepted. The lowest homework score will be dropped in computing your homework grade.

Exams:

Three exams will be given during the semester and will be scheduled at least one week in advance. If you must be absent from an exam, consult with your instructor BEFORE the exam is given. There will be no need to memorize formulae for an exam; all the important formulae will appear on a formula page passed out with the exam.

Final Exam:

In addition to these three exams, there will be a comprehensive final exam on December 14 from 6:00 to 8:30 pm.

Grading:

Your final grade will be based on your scores on homework, lab work, the three exams, and the final exam, as follows:

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|--------------------|-----|
| Homework | 15% |
| 3 exams @ 20% each | 60% |
| Final exam | 25% |

Grading will be determined by a class average. The following scores will be sufficient to earn the following grades:

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|---|-----|
| A | 90% |
| B | 80% |
| C | 70% |
| D | 60% |

Classroom Policies:

Academic honesty and integrity will be expected of you at all times -- for this course or any other. I will deal with infractions quite severely.

Photocopied assignments will not be accepted.

Disability Support Services:

Students requesting academic accommodations are required to contact the Disability Support Services Office (M-1042) or call (301) 322-0839 (voice) or (301) 322-0122 (TTY) to establish eligibility for services and accommodations. Students with documented disabilities should discuss the matter privately with their instructor at the beginning of the semester and provide a copy of their Student/Faculty Accommodation Form.

Code of Conduct:

The Prince George's Community College Code of Conduct defines the rights and responsibilities of students and establishes a system of procedures for dealing with students charged with violations of the code and other rules and regulations of the college. A student enrolling in the college assumes an obligation to conduct himself/herself in a manner compatible with the college's function as an educational institution. Refer to the 2004-2005 Student Handbook, beginning on page 39, for a complete explanation of the code of conduct, including the Code of Academic Integrity and the procedure for dealing with disruptive student behavior.

Code of Academic Integrity:

The college is an institution of higher learning that holds academic integrity as its highest principle. In the pursuit of knowledge, the college community expects that all students, faculty, and staff will share responsibility for adhering to the values of honesty and unquestionable integrity. To support a community committed to academic achievement and scholarship, the Code of Academic Integrity advances the principle of honest representation in the work that is produced by students seeking to engage fully in the learning process. The complete text of the Code of Academic Integrity is in the 2004-2005 Student Handbook (pages 41-43) and posted on the college's website.