COURSE DESCRIPTION: Physics 101 is about motion. The study of motion is called mechanics and a knowledge of mechanics is basic to all other areas of physics. Almost all motion that occurs in everyday life is described by three simple laws (Newton's laws of motion) and two fundamental conservation principles (the conservation of energy and the conservation of momentum).

COURSE PHILOSOPHY: First and foremost, by the end of the term you should have a grasp of the rational, scientific principles which govern the mechanics of the universe. But the second goal is to instill in you systematic problem solving skills for approaching physics problems, which will also serve you well in other areas of life. In other words, to succeed in this course will require more than simply memorizing how to do a certain type of homework problem and then regurgitating it for the exam.


SUPPLIES: The following supplies are also required for this course:

- A small metric ruler
- Protractor
- Graph paper

After completion of this course, a student should be able to:

1. Describe or define the physical quantities associated with the topics listed in the course description,
2. Identify the units of all physical quantities associated with the topics listed in the course description,
3. Distinguish between the vector and scalar quantities studied during the semester,
4. Work problems based on the relational properties of the principles and laws studied during the semester,
5. Use the physical concepts studied in class to analyze and answer qualitative questions about related physical situations,
6. Work problems similar to the problems worked in class and presented in the text,
7. Present the results of laboratory observation and measurements in a precise and logical written form
<table>
<thead>
<tr>
<th>Week Beginning</th>
<th>Topic</th>
<th>Reading</th>
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</thead>
<tbody>
<tr>
<td>1/22</td>
<td>Units, Conversions, etc.</td>
<td>Chap. 1</td>
</tr>
<tr>
<td>1/29</td>
<td>Kinematics</td>
<td>2</td>
</tr>
<tr>
<td>2/5</td>
<td>Vectors and Projectile Motion</td>
<td>3</td>
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<tr>
<td>2/12</td>
<td>Vectors and Projectile Motion</td>
<td>3</td>
</tr>
<tr>
<td>2/19</td>
<td>Newton’s Laws of Motion</td>
<td>4</td>
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<tr>
<td>2/26</td>
<td>Newton’s Laws of Motion</td>
<td>4</td>
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<tr>
<td>3/5</td>
<td>Newton’s Laws of Motion</td>
<td>4</td>
</tr>
<tr>
<td>3/12</td>
<td>Circular Motion and Gravitation</td>
<td>5</td>
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<tr>
<td>3/19</td>
<td>Work and Energy</td>
<td>6</td>
</tr>
<tr>
<td>3/26</td>
<td>Work and Energy</td>
<td>6</td>
</tr>
<tr>
<td>4/2</td>
<td>Momentum &amp; Collisions</td>
<td>7</td>
</tr>
<tr>
<td>4/9</td>
<td>SPRING BREAK</td>
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<tr>
<td>4/16</td>
<td>Momentum &amp; Collisions</td>
<td>7</td>
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<tr>
<td>4/23</td>
<td>Rotational Dynamics &amp; Equilibrium</td>
<td>8-9</td>
</tr>
<tr>
<td>4/30</td>
<td>Rotational Dynamics &amp; Equilibrium</td>
<td>8-9</td>
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<tr>
<td>5/7</td>
<td>CATCH-UP</td>
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</tbody>
</table>

LAST DAY OF CLASSES: Wednesday, May 9

FINAL EXAM DATE: Wednesday, May 16

Homework: To best learn and understand the concepts of physics, you must work problems. A major part of each exam requires you to solve problems. Each week you will be assigned several problems as homework. You are responsible for knowing how to work each of these. These and similar problems will be discussed each week in the recitation session. **YOU WILL NOT SUCCEED IN THIS COURSE WITHOUT DOING THE HOMEWORK.**

Quizzes: To help both you and your instructor monitor your progress, you will work a short quiz most weeks. Please note that the total quiz grade (see below) is equivalent to one semester exam. **Make-up quizzes are not given;** if you know you have to miss a quiz in advance (e.g. for a doctor's appointment) it is best to let the instructor know in advance. Quizzes will be open-book, open notes, collaborative efforts.

Laboratory: Your lab average will be equivalent to one test grade in figuring your PHY 101 average. Specific lab policies will be covered during the first lab session. Please see the lab schedule handout for a tentative list of the lab activities we’ll be doing.

Practice exams: In the past, I have found that having practice exams prior to the "real exam," as sort of a "dry run" for the real thing, has proved beneficial for many students. We will try this, time-permitting. However, here is an IMPORTANT DISCLAIMER: THE PRACTICE EXAMS ARE NOT INTENDED TO BE IDENTICAL TO, OR PERFECTLY ANALOGOUS TO, THE "REAL" EXAM. THEY ARE INTENDED, TO GIVE YOU SOME EXTRA PRACTICE PRIOR TO THE EXAM, AND THAT IS ALL!

Exams: **THERE ARE NO MAKE-UP EXAMS.** Please plan to take all exams when they are scheduled. If you cannot be present for an exam, consult with your instructor before the exam is given. There will be three semester exams. You will not have to memorize formulae for an exam; a formula sheet containing all the important formulae will be given to you for each exam.
Final Exam: The final exam will be part comprehensive (with questions from the work of the entire semester). The rest of the final exam will have questions on the final work of the course (i.e. a fourth exam).

Grades: Your final grade is based on a weighted percentage of the points earned in four areas. The areas and their associated percentages are as follows:

- Quizzes: 15%
- Lab work: 15%
- 3 Exams: 45%
- Final: 25%

Final Exams: Please take a moment to consult the attached Final Exam schedule to determine the time of the final exam for your section of PSC 101. The final will be 90 minutes long, in-class (in this room).

Final Grades: The standard scale of 90-100% = A, 80-90% = B, etc., will be used in determining letter grades. However, the instructor reserves the right to apply a small curve to the final grades at the end of the term before doing so.

Attendance: While there is no attendance policy per se in PSC 101, attendance will be taken into account (along with other factors like class participation, expression of interest, punctuality, and office hours attendance) in borderline cases.

Privacy: The College’s interpretation of the Federal Education Right to Privacy Act (FERPA) forbids me from discussing your grade with you over the telephone or via email. All discussion of your grade must be in person.

Blackboard: Blackboard is a web-based program that serves as the college’s online classroom. To login to your Blackboard course, please follow these steps:

- Go to the Prince George's Community College Blackboard web site which is located at http://pgcconline.blackboard.com. NOTE: There is no “www” in the Blackboard address.
- ALL STUDENTS must use their myPGCC username and password to login to Blackboard. The Blackboard account login information has changed for students. You will not be able to login using your “old” Blackboard username and password.
- If you do not have a myPGCC account, you will need to create one: Go to http://my.pgcc.edu to create a myPGCC account. You will use your myPGCC username and password to login to Blackboard.
- If you already have a myPGCC account, reset your password, if necessary: The first time you access Blackboard using your myPGCC account, you must change your myPGCC password to access Blackboard. When you change your myPGCC password, the Blackboard system is updated with the myPGCC account information. Go to http://my.pgcc.edu to reset your myPGCC password. Blackboard will be updated 1-2 minutes after you reset your password.
- Once you have your myPGCC account information, type it in the Blackboard login box at the http://pgcconline.blackboard.com. (Write down your account information so you can refer to it if you forget.) If your login is successful, you will see the Blackboard “Welcome” screen. In the box labeled “My Courses”, you will see the course or a list of courses in which you are enrolled. Click on the course name to enter your Blackboard course.
- **Immediately change your Blackboard email address.** When information is downloaded into Blackboard from the college's database, your email address does not automatically download. The email address first posted in Blackboard is a generic address given to everyone. To ensure that your instructor can contact you by email, it is VERY important to change your email address as soon as you log in to Blackboard for the first time. Here are the steps for changing your Blackboard email address:
1. From YOUR Blackboard Welcome page (you will see WELCOME, ___! in bold letters at the top of this page), click on Personal Information in the Tools Box on the left side.

2. Click on Edit Personal Information.

3. Change your email address to your preferred email address (the one you check the most often).

4. Click the Submit button in the lower right corner to save the changes you have made.

**DISABILITY SUPPORT SERVICES**

Students requesting academic accommodations are required to contact the Disability Support Services Office (M-1042) or call (301) 322-0838 (voice) or (301) 322-0122 (TTY) to establish eligibility for services and accommodations. Students with documented disabilities should discuss the matter privately with their instructors 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 2005-2006 Student Handbook, beginning on page 41, 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 2005-2006 Student Handbook (pages 42-45) and posted on the college's website.

**IMPORTANT DATES:**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Last day to apply for spring graduation</td>
<td>Thursday, February 15</td>
</tr>
<tr>
<td>Presidents’ Day – College closed – No classes</td>
<td>Monday, February 19</td>
</tr>
<tr>
<td>Last day to change from “credit” to “audit” status in a full semester course or vice versa.</td>
<td>Friday, February 23</td>
</tr>
<tr>
<td>Last day to withdraw from first-half semester classes</td>
<td>Monday, March 5</td>
</tr>
<tr>
<td>Spring Break – College closed – No classes</td>
<td>Saturday-Friday, April 7-13</td>
</tr>
<tr>
<td>Last day to withdraw from full semester classes</td>
<td>Friday, April 20</td>
</tr>
<tr>
<td>Final exam period last week of spring 2007 classes</td>
<td>Thursday-Wednesday, May 10-16</td>
</tr>
<tr>
<td>Commencement</td>
<td>Thursday, May 24</td>
</tr>
</tbody>
</table>

**DELAYED COLLEGE OPENINGS**

When the College announces a delayed opening, all classes with at least 45 minutes of class time remaining at the time of the opening will be held. For example, in the event of a 10 a.m. opening, a 9:30-10:45 a.m. class will be held. This procedure applies to all credit classes.

**COLLEGE RESOURCES AND SERVICES**

**Campus Bookstore**
Largo Student Center, Room 116
[www.pgcc.edu/pgweb/pgdocs/bookstore.html](http://www.pgcc.edu/pgweb/pgdocs/bookstore.html)

**Library**
Accokeek Hall
[www.pgcc.edu/library](http://www.pgcc.edu/library)

General information: 301-322-0105
Circulation services: 301-322-0475
Reference services: 301-322-0476
The Library provides a range of library and media services. Refer to the web site for hours and more information about the services.

Student Development Services 301-322-0886
www.pgcc.edu/pgweb/pgdocs/student_services/index-sds.htm
Student Development Services has various programs that provide students with mentoring, advising, and individual counseling. Call or check the website for more information.

► Turn off all cell phones, pagers, and other electronic noisemakers before entering the classroom!