Instructor    Dr. Sorinel Adrian Oprisan
Office       JC Long building, room 228
Phone      (843) 953-0780
Email       oprisans@cofc.edu

Corequisite     General Physics 111 Lab
Class time & place   MWF, 9:30 A.M.-10:20 A.M., Harbor Walk West 110
Necessary materials   Physics textbook with WebAssign access code, calculator
Office hours   Mondays 2:30 P.M. -3:30 P.M.; Wednesdays and Fridays 12:30 P.M. – 1:30 P.M. or by appointment

General Physics 111 is the first part of a one-year calculus-based course in physics for science major students. The subject matter offers a broad introduction “to principles of physics primarily for scientists and engineers. Subjects covered are mechanics (vectors, linear and rotational motion, equilibrium and gravitational fields); heat (mechanical and thermal properties of solids, liquids and gases); and wave motion” (according to the Catalog’s description).

General Education Learning Outcomes:
1. Students apply physical/natural principles to analyze and solve problems.
2. Students explain how science impacts society.

Other Learning Outcomes:
• Strengthen insights into the fundamental concepts of physics through direct experimental investigations.
• Enhance observational and analytical skills.
• Develop an appreciation for qualitative and quantitative reasoning.
• Develop team work skills.
• Make measurements with common instruments.
• Make objective observations of physical phenomena.
• Draw conclusions based on observations and data.
• Analyze quantitative information using sketches, graphs, tables and statistics.
• Conduct quantitative and qualitative discussions of observational errors.
• Produce an acceptable lab report.
• Design and conduct an experimental project in order to investigate a proposition, evaluate a phenomenon, or make a prediction.

Pre- and co-requisites
• “MATH 120 or equivalent or the permission of the instructor” (according to the CofC Catalog).

Fresh, strong, and working knowledge of algebra, simple trigonometry, and calculus. You will be expected to take a review quiz during the first week of the semester.
Textbook and WebAssign access code

- The textbook for this class is the "Principles of Physics: A Calculus-Based" (5th edition) by Raymond A. Serway and John W. Jewett. The textbook bundle that also contains the access codes for WebAssign can be purchased directly from the publisher at [http://www.cengagebrain.com/course/1-1YLDL65](http://www.cengagebrain.com/course/1-1YLDL65) (be aware of shipping delay), or from the College of Charleston's bookstore.

- A WebAssign access code for the online homework system. If you buy a used textbook, then it is your responsibility to buy the access code for the online homework system separately from WebAssign ([http://www.webassign.net](http://www.webassign.net)).

You should have a basic stand-alone hand-held scientific calculator able to compute only elementary operations, simple trigonometric operations, and exponential / logarithmic functions.

The following is a tentative schedule and the topics and/or dates could change during the semester to accommodate unforeseen events.

Week 1. Introduction and Vectors (ch1).
Week 2. Motion in One Dimension (ch2).
Week 3. Motion in Two Dimensions (ch 3).
Week 4. The Laws of Motion (ch 4).
Week 5. More Applications of Newton's Laws (ch 5).
  - Test #1 (chapters 1-4)
Week 8. Momentum and Collisions (ch 8).
Week 9. Rotational Motion (ch 10).
  - Test #2 (chapters 5-9)
Week 11. Oscillatory Motion (ch 12).
Week 12. Mechanical Waves (ch 13).
Week 13. Superposition and Standing Waves (ch 14).
  - Test #3 (chapters 11-14)

The final grade is composed of:

- Final exam 35%
- Three 50-minute tests 40%
- Hard copy or online (WebAssign) homework 10%
- In-class quizzes 10%
- Class participation, Math survey, Pre- and post-test,
discussion board participation  5%

Grading scale

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<th>B+</th>
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Final exam

The final exam is comprehensive and scheduled on Monday, December 14, 2015 from 8 A.M. – 11 A.M. in Harbor Walk West, room 110. (http://www.cofc.edu/~register/courseCalendars.htm). There will be no make-ups for the tests or the final exam.

In-class tests

There will be three, 50-minute, in-class tests during the semester. The exam questions and problems will be similar to the assigned problems and text readings as well as class presentations. Pay attention to the examples solved in class and the solved examples from your textbook. Working problems as well as reviewing conceptual problem questions, discussion notes and studying the text is a good way to prepare for an exam. Approximately half the problems will be conceptual questions and the other half will be quantitative problems. There will be no make-ups for the tests or the final exam! No textbooks, notes, or any other kind of help is allowed during tests and final exam, except for the formula sheet that will be provided.

Hard copy or online homework assignments

All homework assignments are based on the end-of-chapter problems in your textbook.

If you do not want to use the online homework system, you may return a hard copy of the mandatory homework assignment. Please make sure that your hard copy (1) contains solutions to all assigned problems for that chapter (a legible scanned pdf file sent via email to oprisans@cofc.edu suffices), (2) provides at least the level of details shown on the solutions I posted for different assignments/quizzes/tests, (3) reaches me either before or no later than the next morning after the deadline passed. For example, if the deadline for the online homework was Wednesday at 11:59 pm, please return the hard copy no later than the following morning (Thursday) by noon. If I do not receive a hard copy by the deadline, your grade is whatever the online homework system shows for that assignment. If you returned a hard copy for grading, then the hard copy grade overrides online homework system grade for the entire assignment, i.e. you cannot have
some problems solved and graded online and the rest submitted and graded on a hard copy.

In case you want to use the online homework system WebAssign (http://www.webassign.net/), you need: 1) Username: your cofc username, 2) Institution: cofc, 3) Password: your cofc username (Please change your password after the first login!). You will be allowed multiple attempts to answer, and your grade will be based on the last submission. Solutions will be available on the WebAssign webpage after the due date. During the first two weeks of class, you can access WebAssign for free. However, after the grace period, you cannot access your account anymore. In order to continue using WebAssign, you will need an access code. If there are any problems with the registration for the online homework system, it is imperative that you let me know about the issue during the first week of the semester.

   Keep a notebook of your work. This would be useful in preparing for an exam as well as used for study sessions.

   To make homework meaningful, before attempting it read the assigned sections of the textbook, and review the preceding week’s lecture notes. Always work assigned problems as if you were taking a test without looking back in the textbook, in the lecture notes, or solution outlines. Write as much detail as if you were taking a test. If you get stuck, stop the problem and read the relevant sections of the text and lecture notes. If you have difficulty with the assigned problems, do other similar problems in the textbook until the solutions flow smoothly. If this does not help, get help from the instructor.

In-class quizzes

There will be a problem-solving quiz every Friday during the last 10-15 minutes of the lecture, similar to the mandatory online homework problems or to examples solved in class. No make-up quizzes will be given. The lowest quiz grade will be automatically dropped at the end of the semester.

Discussion board postings

The WebAssing (http://www.webassign.net/) environment provides the opportunity for rapid feedback and help with homework assignments. The discussion board allows everyone in the course to interact by posting or responding to messages related to homework assignments. You can post on the discussion board either by composing a new message (creates a new thread), or by replying to an existing message. By actively participating in the discussion board, you could get help from your colleagues and instructor.

Collaboration

I strongly encourage collaboration in and out of class. I recommend that you form small study groups (3-6 students) and work together on your homework assignments, lab assignments and computational projects. Before working together or consulting others
on any assignment, it pays to give yourself the opportunity to work on it alone. Activities for which collaboration is not permitted are: reading quizzes, in-class tests, and the final exam.

Class conduct
• There shall be no eating, drinking, or sleeping in the classroom.
• Cell phones, beepers, headsets, iPods and any other electronic devices that may disrupt the class must be turned off and put away prior to class unless you have a job requiring them to be on for safety (firefighter, EMT, etc.)
• Computer use is limited to taking notes or participating in classroom activities.
• Refrain from talking out loud and/or inappropriately to the extent that it is disruptive to the learning process.
• Arrive on time to class to avoid disrupting the learning process.
• Do not leave trash behind (e.g., cups, containers, wrappers, etc.)
• Recording (video and/or audio) my lectures is allowed only with my written consent.


Center for Student Learning (CSL) offers academic support services for assistance in study strategies, speaking & writing skills, and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. The services are available to you at no additional cost. For more information regarding these services please visit the CSL website at http://csl.cofc.edu or call (843)953-5635.

Rights of students with disabilities (http://policy.cofc.edu/documents/12.5.2.9.pdf)
“The College of Charleston and the Graduate School actively and affirmatively seek to accommodate any currently enrolled student with a certified disability according to the regulations established by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Services for students with disabilities (physical, psychological, learning disabilities, ADD/ADHD) are provided through the Center for Disability Services located in the Lightsey Center, first floor, Rm. 104. The web address is http://disabilityservices.cofc.edu/. Telephone number (843) 953-1431 (voice) and Fax: (843) 953-7731. SC Relay System 771 or 1-800-735-2905. Based on these laws, the College of Charleston assures that all programs and services at the College of Charleston are accessible and reasonable academic accommodations that do not affect essential components of the course will be provided to all qualified students.”

Accommodations for SNAP students (http://disabilityservices.cofc.edu/documents/student-guide.pdf)
“Accommodations will be determined on a case-by-case basis and are listed in the student's Professor Notification Letter (PNL). It is the responsibility of the student to give the letter to their professors the first week of the semester. Students are not required to disclose their SNAP status to professors if they choose not to use accommodations in
that professor's class.” (http://disabilityservices.cofc.edu/accommodations/index.php)
“Students are asked to sign up for their tests at The Center For Disability Services one
week in advance. Professors are not required to accommodate students with extended
time if they do not receive advance notice.”
(http://disabilityservices.cofc.edu/accommodations/testing.php) See also

Honor Code and Academic Integrity (from
http://academicaffairs.cofc.edu/documents/honor-code-language.pdf)
“Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code
that, when identified, are investigated. Each incident will be examined to determine the
degree of deception involved. Incidents where the instructor determines the student’s
actions are related more to a misunderstanding will be handled by the instructor. A
written intervention designed to help prevent the student from repeating the error will be
given to the student. The intervention, submitted by form and signed both by the
instructor and the student, will be forwarded to the Dean of Students and placed in the
student’s file. Cases of suspected academic dishonesty will be reported directly by the
instructor and/or others having knowledge of the incident to the Dean of Students. A
student found responsible by the Honor Board for academic dishonesty will receive a XF
in the course, indicating failure of the course due to academic dishonesty. This grade
will appear on the student’s transcript for two years after which the student may petition
for the X to be expunged. The student may also be placed on disciplinary probation,
suspended (temporary removal) or expelled (permanent removal) from the College by the
Honor Board. Students should be aware that unauthorized collaboration -- working
together without permission -- is a form of cheating. Unless the instructor specifies that
students can work together on an assignment, quiz and/or test, no collaboration during
the completion of the assignment is permitted. Other forms of cheating include
possessing or using an unauthorized study aid (which could include accessing
information via a cell phone or computer), copying from others’ exams, fabricating data,
and giving unauthorized assistance. Research conducted and/or papers written for other
classes cannot be used in whole or in part for any assignment in this class without
obtaining prior permission from the instructor. See also Section 9 (page 10) of the
Student Handbook (http://studentaffairs.cofc.edu/honor-
system/studenthandbook/documents-pdfs/handbook.pdf) and at
http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php