

PHY141: Classical Physics A (3 credits)

PHY141 - First part of a demanding two-semester sequence for students with the strongest background, interests, and abilities in science and mathematics. The topics covered in PHY 141 are similar to those in PHY 131 but are treated in more depth in a small-class setting. Three lecture hours and one recitation hour per week. Advanced Placement Physics or a very strong course in high school Physics is recommended. Students may transfer to PHY 131 at any time during the first half of the semester without penalty.

Prerequisite: Level 6 on Math Placement, or B or higher in MAT 131 or 141 or AMS 151, or B+ or higher in MAT 125, or instructor permission (priority given to students in Honors or WISE programs)

Pre or Corequisite: MAT 131 or 141 or 126 or AMS 151; PHY 133

- Objectives** At the end of PHY141, the students will
- have a deep understanding the main ideas and physics laws in Mechanics, Fluids and Thermodynamics as evidenced by their answers to conceptual questions often related to real-world situations;
 - solve complex Mechanics, Fluids and Thermodynamics problems by:
 - understanding the physical situations in the problems;
 - recognizing and applying the relevant physical laws;
 - using calculus-based mathematical and computational techniques; and
 - evaluating the limitations of their solutions.

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Textbook Physics for Scientists & Engineers, 5th edition
Douglas C. Giancoli, Pearson Prentice Hall
PHY141 will cover chapters 1 to 14, and 17 to 20
The book can be purchased together with the Student Access Code for logging on to Mastering Physics, where students will complete homework assignments.

Lectures M, W, F: 8:25 am – 9:20 am Mendez Physics P113
Last day of class: December 8
No classes on September 1 (Labor Day);
October 13, 14 (Fall Break);
November 26-28 (Thanksgiving Break).

Recitations	Friday: 9:30 am - 10:25 am Start the week of August 25	Mendez	Physics P113
Office Hours	Monday, Tuesday, and Wednesday (9:30 am to 10:30 am)		Physics B142
Equipment & Software	Internet-connected computer/laptop for homework Pearson's Mastering Physics license for weekly homework		
Brightspace	Used for course announcements, distribution of lecture material, and weekly homework assignments		
Homework	Weekly problem assignments from Pearson's Mastering Physics (via Brightspace)		
Evaluations	Weekly quizzes during recitation hours. Two mid-term exams during lecture time (on or around 9/26 and 10/31) Final exam on 12/17, from 8 am to 10:45 am		
Grades	Course Numerical Grade 10% Homework; 15% Quizzes 40% Midterm Exams (20% each); 35% Final Exam 5% Dynamic Study Modules (extra credit) Course Letter Grade $100 \geq A \geq 90$ $89 \geq A^- \geq 85$ $84 \geq B^+ \geq 80$ $79 \geq B \geq 75$ $74 \geq B^- \geq 70$ $69 \geq C^+ \geq 65$ $64 \geq C \geq 55$ $54 \geq C^- \geq 50$ $49 \geq D \geq 45$ $44 \geq F \geq 0$ NOTE: Exams and assignments will NOT be graded on a curve. The final letter grade will be determined by individual performance only (as per the table above), not by a class curve.		
Study Tips	(Adapted from Giancoli, <i>How to Study</i>) Before class, read textbook sections to be covered in class; get familiar with vocabulary and notation. Do extra-credit Dynamic Study Module. Attend all classes, both lectures and recitations. Participate in class discussions and exercises. After class, read textbook material covered in class, paying attention to main concepts, details and worked-out examples. Do homework problems corresponding to material covered that day in class.		
Phone Policy	Use of cell phones during class is not allowed, except in an emergency. Phones should be off or in silence and not visible on desks.		

Academic Integrity

Each student is accountable for all submitted work. Representing another person's work as your own is wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic integrity website at http://www.stonybrook.edu/commcms/academic_integrity/index.html .

Americans with Disabilities Act

If you have a physical, psychiatric/emotional, medical or learning disability that may impact on your ability to carry out assigned course work, you should contact the staff in the Disability Support Services office [DSS], ECC (Educational Communications Center) Building, Room 128, (631)632- 6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

<https://web.stonybrook.edu/newfaculty/StudentResources/Pages/DisabilitySupportServices.aspx>

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the website

<http://www.sunysb.edu/ehs/fire/disabilities.shtml> .

Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

Religious Observances

The academic calendar has no religious holidays. See the List of Religious and Other Holidays and other relevant links at

https://www.stonybrook.edu/commcms/registrar/calendars/religious_holidays#2024

Students will be expected to notify the lecture and/or recitation-instructor by email, in advance, of their intention to be absent for any religious observance during the Fall 2024 semester. They can discuss with their instructor before then how they will be able to secure the work covered.