

# PHY131/133 Studio Section 90 Course Syllabus

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## Course Description

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The course is the first part of a two-part sequence intended for majors in the physical sciences and engineering who have a strong background in mathematics. It focuses on the mechanics of point particles and simple oscillators, and emphasizes motion in one and two dimensions and the concepts of force, momentum, energy, kinetic theory, and thermodynamics. Calculus is used concurrently with its development in MAT 131

Students taking this section of the course must also be enrolled in PHY133-R90 and PHY133-L90, the laboratory component of the course. This class meets three times a week on Mondays, Wednesdays, and Fridays, in Physics, P-118 from 10:00AM-11:53AM. The laboratory component will take place on Fridays, but there will be classes every Friday, even if there is not a lab scheduled on that Friday.

## Textbook and materials

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The textbook for this course is: Douglas C. Giancoli, Physics for Scientist & Engineers, 4th edition. We will also be using the Mastering Physics Homework System associated with this book. There are various ways you can purchase the material, however there are some important points to bear in mind. Some of you may chose to switch to the larger enrolment class in the Spring semester, and that class uses a different textbook from this class and all the other calculus based intro physics classes offered at Stony Brook. In order to minimize the cost to should you decide to switch I have arranged a special 6 month access code that includes access to the textbook as e-book and Mastering Physics. Instructions on how to get access to these via Blackboard can be found [here](#).

You will also need a laboratory notebook.

A calculator will be essential for all exams. It can be any kind of scientific calculator, but not a phone, tablet or laptop computer. It cannot have any kind of networking or messaging capabilities. During class you may bring any device you wish, but you should make sure you gain familiarity with the calculator you will be using in exams.

## Format of class

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This course follows a participatory studio format. Students are expected to attend all classes for which they do not have a reasonable excuse and participate in group activities during the classes. Students will be expected to prepare for every class by reading the relevant chapter in the textbook before coming to class.

The Friday class will be mostly dedicated to the labs, however there will be also be opportunities to ask for explanations on the weeks homework. It is necessary to prepare in advance for the labs. Every student should come to lab having read the lab manual and written up the procedure in their lab notebook. This will be checked off by the Teaching Assistants and form part of your score for the lab. At the end of the lab period, the Teaching Assistants will check your work before you leave, and their assessment of your work will form the other part of your score for the lab. You will be asked to write up 3 formal lab reports during the semester. Your scores on these, together with your scores on the weekly labs, will determine your grade for PHY133-L90.

## Grading structure

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The grades for PHY131 will be determined based on the following:

- Mastering Physics Problems: 25%

- First Midterm Exam: 20%
- Second Midterm Exam: 20%
- Final Exam: 35%

The grades for PHY133 will be determined based on a combination of scores for completing each of the 10 labs and the 3 formal lab reports.

The grades for PHY131 and PHY133 will be determined independently of each other.

## Exams

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There will be two midterm exams, held **in class** on **Friday 7 October** and **Friday 4 November**.

The final exam will be on **Thursday 15 December** from 2:15-5:00PM, which is the allocated common exam time for all introductory physics courses.

## Class Schedule

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Classes will be held on Mondays, Wednesdays, and Fridays from 10:00–11:53 in P118.

## Disability Support Services (DSS)

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If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, 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.

## Academic Integrity

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Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary/> [<http://www.stonybrook.edu/uaa/academicjudiciary/>]

## Critical Incident Management

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