

Studying Physics at Stony Brook

The Department of Physics & Astronomy at Stony Brook University is one of the top Physics departments in the country, and our own facilities are complemented by the unique resources available at nearby Brookhaven National Laboratory and elsewhere.

At the introductory level, the study of these disciplines serves to demystify our technological world both by explaining the basic ideas behind many technologies, and by introducing the scientific process (quantified critical thinking). Further study leading to a Minor or a Bachelor of Science Degree teaches one classical and quantum physics and how to test theories against reality in the laboratory; this training in independent thinking is valuable for further studies in science, and also in other walks of life.

We have several introductory course sequences for various students:

- Students interested in the athletic training program should take the PHY 113/115 and PHY 114/116 sequence.
- Students planning on majoring in biology or biochemistry, or aiming towards medical or dental school or other health professions, can take the PHY 121/123 and PHY 122/124 sequence. These courses have MAT 125 (Calculus A) or higher and CHE 132 (General Chemistry II) as prerequisites, and are often not taken until the sophomore year. At the same time, students in this area can instead take one of the sequences listed below which preserve more options for dual majors in physics, chemistry, or engineering.
- Students planning on majoring in physics, chemistry, or engineering should take one of the three following sequences:
 - The PHY 125/126/127 sequence is calculus-based physics spread over three semesters, which many students find preferable. A math placement level of 4 or higher is a prerequisite, and MAT 125 is a pre- or co-requisite for PHY 125 while MAT 126 is a pre- or co-requisite for PHY 126 and PHY 127. Note that the latter two courses can be taken in either order, 125/126/127 or 125/127/126.
 - The PHY 131/133 and 132/134 sequence covers the same material over two semesters. The math prerequisites for PHY 131 are the same as for MAT 131, and you must take MAT 131 or MAT 126 with PHY 131 and MAT 132 or MAT 127 with PHY 132, or the equivalent AMS or MAT honors courses or have taken them.
 - The PHY 141/142 honors sequence is for students with stronger math background: level 6 on the math placement exam, or a B+ minimum in MAT 125 or a B minimum in MAT 131 or higher.

A complete listing of course options beyond the first year, and quite a bit of additional information for physics and/or astronomy majors, is available at <http://www.physics.sunysb.edu>.

Students with questions on AP credit transfer (beyond the info shown on p. 24 of the 2007 – 2009 Undergraduate Bulletin), or transfer of credits from other institutions, should also consult the above web page, or contact the undergraduate program director at pallen@notes.cc.sunysb.edu. Students with problems on registering for physics courses via the SOLAR system should contact the undergraduate program coordinator at Elaine.Larsen@stonybrook.edu.