Physics

Baker Center for Sciences and Mathematics Bldg. (180), Room 204  
Phone: 805.756.2448; Fax: 805.756.2435  
http://physics.calpoly.edu/  
physics@calpoly.edu

Department Chair: Robert Echols

Academic Programs

<table>
<thead>
<tr>
<th>Program name</th>
<th>Program type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>BA, BS, Minor</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Minor</td>
</tr>
<tr>
<td>Geology</td>
<td>Minor</td>
</tr>
</tbody>
</table>

The department provides a solid grounding in fundamental physics through theoretical courses in Classical and Modern Physics, Quantum Mechanics, Electromagnetism, and Thermal Physics. These are supported by a comprehensive laboratory program in electronics and quantum physics. Required subjects are complemented by a wide range of elective courses including optics, particle and solid state physics, nonlinear dynamics, astronomy, and geophysics. Facilities include specialized laboratories in electrical measurements, optics, solid state physics, and nuclear and atomic physics. Majors are prepared to attend graduate school, work in technical fields, or pursue a teaching credential. Student activities include a chapter of the national Society of Physics Students and a chapter of the national physics honor society, Sigma Pi Sigma.

Undergraduate Programs

BA Physics

The BA in Physics provides the student with a solid foundation in physics. It is a more flexible major serving students with double majors, nontechnical minors, and students who intend to pursue teaching in multiple subjects. Students considering a career in teaching should consult with the department advisor early.

The curriculum has fewer required upper division courses than the BS, which allows the student to choose from an extensive list of electives in consultation with an academic advisor. In addition, the BA provides an attractive option for students in related disciplines who wish to pursue a double major.

BS Physics

The BS in Physics is the appropriate choice for those students planning a career involving physics in industry or government laboratories, as well as those seeking a strong foundation in physics for graduate study.

Astronomy Minor

The Astronomy Minor provides students an opportunity to learn about and analyze astronomical phenomena and processes. A minor in astronomy provides a background for graduate-level studies in astronomy or work in related fields. Interested students should see an Astronomy Minor advisor.

Geology Minor

The Geology Minor is offered in conjunction with the Natural Resources Management and Environmental Sciences Department. It provides a background useful for careers in environmental consulting or geotechnical fields. Interested students should consult with a Geology Minor advisor. This minor is not open to students in the Earth Sciences’ Geology concentration. For more information about that concentration, please see the Earth Sciences program in the Natural Resources Management and Environmental Sciences Department (http://catalog.calpoly.edu/collegesandprograms/collegeofagriculturefoodenvironmentalsciences/naturalresourcesmanagementenvironmentalsciences).

Prerequisites for the Geology minor are SS 121, CHEM 111 or CHEM 128, and PHYS 132.

Physics Minor

The Physics Minor provides students with the opportunity to build on their introductory physics courses with a coordinated set of electives based on interests and career objectives selected in consultation with a physics advisor.

Students may earn a minor in Physics by completing a course of study consisting of 24 units in physics and astronomy, of which 12 units must be upper division, and no more than 4 units may be from astronomy courses.

Prerequisites for the Physics Minor are SS 121, CHEM 111 or CHEM 128, and PHYS 132.

Prerequisites for the Physics Minor are SS 121, CHEM 111 or CHEM 128, and PHYS 132.