Requirements for the minor in
ASTRONOMY AND PLANETARY SCIENCE, 2009-2010

All courses to be applied to the minor must be completed on a letter-grade basis, with the exception of up to 5 units from the following: Physics 145L, 198, 199.

### PREPARATION

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 3A-B-C</td>
<td>12</td>
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<tr>
<td>Mathematics 5A-B-C</td>
<td>12</td>
</tr>
<tr>
<td>Physics 1-2-3-4-5 (or Physics 20-21-22-23-24-25) and Physics 3L-4L-5L or 25L, or 13AH-BH-CH</td>
<td>20-26</td>
</tr>
</tbody>
</table>

Recommended: Chemistry 1A-B-C, Geology 2. These courses are prerequisite to several of the upper-division elective choices below.

### UPPER-DIVISION

18 UD units are required, distributed as follows:

- Physics 132 ................................................................. 4   
- Physics 133 ................................................................. 4   
- Ten units chosen from Physics 131, 134, 141, 145L, 198*,199*; Geology 123, 124G, 159A-B, 198*, 199* ................................................................. 10   

* Project must be approved by the faculty advisor. In addition, no more than 5 units from Physics 198, 199 and Geology 198, 199 will be accepted toward the minor.

Students must consult the General Catalog for prerequisites to required courses.

The following conditions must also be met for official recognition of the minor:

- The sponsoring department reports completion of the minor prior to the posting of the degree.
- At least 18 upper-division quarter units are completed for the minor. (Waivers cannot reduce the requirement below this number.)
- At least 12 of the upper-division units for the minor are completed while in residence at UCSB.
- The UC grade-point average in ALL applicable upper-division courses, including those in excess of minimum requirements, is 2.0 or higher.
- No more than 5 upper-division units overlap between this minor and the upper-division portion of the major(s) or other minor(s). If overlap is greater with the major(s), completion of the minor will not be formally recognized; if overlap with other minor(s) is greater, only the first minor reported will be recognized.

No reference will be made to the minor on any progress checks or degree clearance forms.