

**PHYSICS MAJOR, B.S. DEGREE**  
*SPECIALIZATION: COMPUTATIONAL PHYSICS (PY33)*  
 Total Units: 121-125

**Lower Division (52-56 units)**

**UNITS YET TO COMPLETE**

Physics 4A-B-C-D-E <i>or</i> 2A-B-C-D.....	20 or 16 _____
Physics 2CL and 2DL .....	4 _____
Chemistry 6A .....	4 _____
Math 18 <sup>1</sup> and 20A-B-C-D-E .....	24 _____
A programming course <sup>2</sup> .....	4 _____

**Upper Division (69 units)**

1. Physics 100A-B, 105A-B, 110A, 120, 130A-B, 140A .....	37 _____
2. Two courses from Physics 122, 141, 142 .....	8 _____
3. Restricted electives: Six restricted electives from the following groups: <b>Physics</b> 100C, 110B, 122, 124, 130C, 140B, 141, 142, 173, other upper division physics courses; <b>Mathematics</b> 170A-B-C, 179, 183; <b>CSE</b> 12, 30, 80; substitute elective courses <sup>3</sup> .....	24 _____
Elective courses taken: _____	

**MAJOR REGULATIONS**

<b>LIMIT OF USE</b> .....	A course that is listed in several areas cannot count towards more than one area and can satisfy only ONE of the major requirements.
<b>DOUBLE MAJORS</b> .....	A student with a double major must fulfill the separate requirements of each major, and the equivalent of at least ten upper-division courses (forty units) must be unique to each major. Courses taken in fulfillment of lower-division requirements may overlap to any degree.
<b>GRADE REQUIREMENTS</b> .....	A grade point average of 2.0 or higher in the upper-division major is required for graduation. Students must receive a grade of C– or better in all courses to be applied to the major. In exceptional cases, students with a grade point average of 2.5 or higher in the upper-division major may petition to have one grade of D accepted; approval is not guaranteed.
<b>P/NP GRADING OPTION</b> .....	Not allowed for any courses applied to the major (exceptions are courses completed via AP/IB and a single 4-unit Physics 199).
<b>PREREQUISITES</b> .....	Check the <u>General Catalog</u> for the prerequisites to all listed courses.
<b>RESIDENCE REQUIREMENTS</b> .....	At least nine upper-division courses in the major while in residence at UC San Diego.
<b>SUBSTITUTIONS</b> .....	Permissible only by approved petition.

<sup>1</sup> The Linear Algebra course previously numbered Math 20F is acceptable.  
<sup>2</sup> Programming course options: CENG 15; CSE 5A, 7, 8A, 11, 12, 86; MAE 8; NANO 15  
<sup>3</sup> Upper-division science, mathematics, engineering courses may be applied via approved petition.