

B.S. APPLIED PHYSICS DEGREE REQUIREMENTS

A. Core Requirements:

Students must complete all courses

- Math 2A **OR** Math 5A
- Math 2B Math 2D
- Math 2E Math 3A
- Math 3D
- Physics 7C-7D-7E-7LC-7LD **OR**
Physics 3A-3B-3C-3LB-3LC

*Physics 7 series is **strongly** recommended for majors.

- Physics 50
- Physics 53 (or approved alternate programming course)
- Physics 60 **OR** Chem 1C/H2C/M3C **OR**
ENGRMAE 91
- Physics 61A **OR** Physics 51A
- Physics 111A Physics 112A
- Physics 113A Physics 115A

B. Lower-Division Lab Requirement:

- Students must complete 6 units of labs using any combination of the following courses*

- Physics 52A (2 units)
 - Physics 52B (2 units)
 - Physics 52C (2 units)
 - Chem 1LC (2 units)
 - Chem 1LD (2 units)
 - Chem H/M2LA (3 units)
 - Chem H/M2LB (3 units)
 - Chem 51LB (2 units)
 - Chem 51LC (2 units)
 - Chem H/M52LA (3 units)
 - Chem H/M52LB (3 units)
 - ENGR 7A (2 units)
 - ENGR 7B (2 units)
 - EECS 70LA (1 unit)
 - EECS 70LB (1 unit)
- } _____ /6 units completed

C. Upper-Division Lab Requirement:

- Students must complete 8 units of upper-division lab courses, 4 units must be in Physics selecting from the following courses*

- Physics 106W (4 units)
 - Physics 120 (4 units)
 - Physics 121W (4 units)
 - Physics 139 (4 units)
 - Physics 193 (4 units)
 - Physics 196C (4 units)
 - EECS 170LA (1 unit)
 - ENGRMAE 150L (1 unit)
 - Other approved upper-division labs outside of Physics Department
- } _____ /8 units completed

D. Writing Communication Requirement:

- Students must complete one writing communication course selected from the following*

- Physics 194
- Phy Sci 139W
- Educ 143BW
- One approved upper-division writing course with departmental approval

E. Elective Requirement:

The major requires 32 additional units of coherently related elective courses chosen from PHYS 100-150 and/or 200-299 with approval from the Department Undergraduate Advisor. Up to 8 units may be lower-division electives in Physics such as Physics 20, 61B, or H90.

Optional Concentration in Engineering Physics

For students in the Engineering Physics Concentration, at least 24 of the 32 elective units must come from courses in the Henry Samueli School of Engineering. Pre-approved courses include:

- EECS 70A (4 units)
 - EECS 70B-70LB (4/1 units)
 - EECS 170A-LA (4/1 units)
 - EECS 170B-LB (4/1 units)
 - EECS 170C-LC (4/1 units)
 - EECS 174 (4 units)
 - EECS 188 (4 units)
 - ENGRMAE 120 (4 units)
 - ENGRMAE 130A (4 units)
 - ENGRMAE 147 (4 units)
- } # _____ Engineering units completed

The remaining 8 units may be lower-division or upper-division Physics courses, upper-division Math courses, or Engineering courses; plan requires pre-approval by the Department Undergraduate Advisor.

Optional Concentration in Biomedical Physics

For students in the Biomedical Physics Concentration, the coherently related elective requirement is completed by the following courses:

- Bio Sci 97 Bio Sci 98 Bio Sci 99
- Chem 1A-1B-1C-1LC-1LD **OR**
Chem H2A-H2B-H2C-H2LA-H2LB **OR**
Chem 1A-1B-M3C-M2LA-M2LB
- Chem 51A-51B **OR** Chem H/M52A-H/M52B

*Requirements in sections A/B/C/D/E may not double-count. Courses can only be applied toward one section.

Effective Fall 2019