

## 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 106 (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)
  - ENGMAE 120 (4 units)
  - ENGMAE 130A (4 units)
  - ENGMAE 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.