## B.S. in PHYSICS
### Suggested 4-Year Academic Flowchart

### 2017-19 Catalog

#### Freshman

**Fall**
- General Physics IA
  - PHYS 141 (4)*
  - MATH 141 (4)*
- Calculus I
  - MATH 141 (4)*
- Gen Chem for Physical Science & Engineering I
  - CHEM 124 (3)*
- Expository Writing
  - ENGL 133/134 (4)** [A1]
- Oral Communication
  - COMS 101/102 (4)** [A2]

**Spring**
- General Physics III
  - PHYS 142 (4)*
  - PHYS 142 (4)*
- Calculus II
  - MATH 142 (4)*
- Gen Chem for Physical Science & Engineering II
  - CHEM 125 (4)*
- Reasoning, Argumentation, & Writing
  - COMS 120; COMS/ENGL 145; ENGL 148; PHIL 126 (4)**
  - (Completion of GE A1 with a C- or better)

**Total:** 16 units

### Sophomore

**Fall**
- Modern Physics II
  - PHYS 211 (4)
- Linear Analysis I
  - MATH 241 (4)
- Experimental Physics
  - PHYS 206 (4)
- GE (4)
- **GE (4)**

**Spring**
- Modern Physics II
  - PHYS 212 (4)
- Linear Analysis II
  - MATH 244 (4)
- Physics on the Computer
  - PHYS 202 (4)
- GE (4)
- **GE (4)**

**Total:** 16 units

### Junior

**Fall**
- Classical Mechanics I
  - PHYS 302 (4)
- Vibration and Waves
  - PHYS 222 (3)
- Quantum Physics Laboratory I
  - PHYS 340 (2)
- Technical Elective
  - Technical Elective
  - (4)*
  - (4)*

**Winter**
- Quantum Physics Laboratory II
  - PHYS 341 (2)
- Technical Elective
  - Technical Elective
  - (4)*
  - (4)*

**Spring**
- Quantum Physics Laboratory III
  - PHYS 342 (2)
- Technical Elective
  - Technical Elective
  - (4)*
  - (4)*

**Total:** 16 units

### Senior

**Fall**
- Electromagnetic Fields & Waves I
  - PHYS 408 (4)
- Technical Elective
  - Technical Elective
  - (4)*
  - (4)*

**Winter**
- Electromagnetic Fields & Waves II
  - PHYS 409 (4)
- Technical Elective
  - Technical Elective
  - (4)*
  - (4)*

**Spring**
- Electromagnetic Fields & Waves III
  - PHYS 410 (4)
- Technical Elective
  - Technical Elective
  - (4)*
  - (4)*

**Total:** 16 units

**Total:** 180 units

### Notes:

- MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET
- * Refer to current catalog for prerequisites.
- ** One course from each of the following GE areas must be completed: A1, A2, A3, B1, B2, C1, C2, C3, C4, C5 elective, D1, D2, D3, D4, D5 and F.
- † Course can be taken previously or concurrently.
- ‡ Completion of GE A1 with a C- or better
- †† Supplemental Workshops (SCM 150) recommended in your first year. These courses will count for elective credit.
- ‡‡ 8 total units of elective credit required for the major. Electives can be taken at anytime. MATH 151 & SCM 150 workshops recommended.
- †§ Complete 21 units of Advanced Physics Electives. Select 9 units of PHYS 300 or 400 level electives. Select an additional 12 units of 300-400 courses from the following prefixes: PHYS/ASTR/GEOL/MATH/STAT/CSC with at least 2 courses from PHYS 323, 342, 357, 417, 422, 423, 452; ASTR 444 and at least 1 course from PHYS 424 or MATH 418. Total combined elective credit in PHYS 400, PHYS 404, ASTR 404, ASTR 404, GEOL 400, and GEO 404 limited to 8 units, with a maximum of 2 units per quarter.

### Legend:

- Course Title
- Course # (Units)
- Major (112)
- General Ed. (60)
- [GE Area]
- Free Electives (8)