Suggested four-year plan for the B.A. in Physics (Model 1)

**First Year - First Semester**

- **ENG 101 - College Composition** Credits: 3
- **MAT 126 - Calculus I** Credits: 4
- **PHY 100 - Introduction to Physics and Astronomy** Credits: 1
- **PHY 121 - Physics for Engineers and Physical Scientists I** Credits: 4
- or
- **PHY 111 - General Physics I** Credits: 4
- Human Value/Social Context and Ethics Elective I Credits: 3

**First Year - Second Semester**

- **MAT 127 - Calculus II** Credits: 4
- **PHY 122 - Physics for Engineers and Physical Scientists II** Credits: 4
- or
- **PHY 112 - General Physics II** Credits: 4
- Human Values/Social Context and Ethics Elective II Credits: 3
- Elective Credits: 3

**Second Year - First Semester**

- **CHY 121 - General Chemistry I** Credits: 3
- **CHY 123 - General Chemistry Laboratory I** Credits: 1
- **MAT 228 - Calculus III** Credits: 4
- **PHY 200 - Career Preparation in Physics and Engineering Physics I** Credits: 1
- **PHY 261 - Physical Measurements Laboratory I** Credits: 2
- **PHY 236 - Introductory Quantum Physics** Credits: 3

**Second Year - Second Semester**

- **MAT 259 - Differential Equations** Credits: 3
- **PHY 223 - Special Relativity** Credits: 1
- **PHY 231 - Mathematical Methods in Physics** Credits: 3
- **PHY 241 - Computational Physics** Credits: 3
- **PHY 262 - Electronics** Credits: 2
- Human Value/Social Context and Ethics Elective or Elective Credits: 3

**Third Year - First Semester**

- **PHY 364 - Modern Experimental Physics** Credits: 2
- **PHY 451 - Mechanics** Credits: 3
- **PHY 454 - Electricity and Magnetism I** Credits: 3
- Human Value/Social Context and Ethics Elective(s) and/or Elective(s) and/or Physics Elective(s) Credits: 6

**Third Year - Second Semester**
● **PHY 365 - Mechanics Laboratory** Credits: 2
● Human Value/Social Context and Ethics Elective(s) and/or Elective(s) and/or Physics Elective(s) Credits: 12

**Fourth Year - First Semester**

● **PHY 400 - Career Preparation in Physics and Engineering Physics II** Credits: 1
● **PHY 481 - Project Laboratory in Physics I** Credits: 3
● Human Value/Social Context and Ethics Elective(s) and/or Elective(s) and/or Physics Elective(s) Credits: 12

**Fourth Year - Second Semester**

● Human Value/Social Context and Ethics Elective(s) and/or Elective(s) and/or Physics Elective(s) Credits: 15

**Suggested four-year plan for the B.A. in Physics (Model 2)**

Designed for students who desire a degree in Physics but who wish greater breadth in background in other areas of science, such as biological, geological, chemical or environmental sciences. The program outlined below enables a student to begin a major in Physics during the sophomore year.

**First Year - First Semester**

● **ENG 101 - College Composition** Credits: 3
● **PHY 100 - Introduction to Physics and Astronomy** Credits: 1
● Human Value/Social Context and Ethics Elective I Credits: 3
● Electives Credits: 9

**First Year - Second Semester**

● Human Value/Social Context and Ethics Elective II Credits: 3
● Electives Credits: 12

**Second Year - First Semester**

● **CHY 121 - General Chemistry I** Credits: 3
● **CHY 123 - General Chemistry Laboratory I** Credits: 1
● **MAT 126 - Calculus I** Credits: 4
● **PHY 121 - Physics for Engineers and Physical Scientists I** Credits: 4
  ● or
● **PHY 111 - General Physics I** Credits: 4
  ● **PHY 200 - Career Preparation in Physics and Engineering Physics I** Credits: 1
● Human Value/Social Context and Ethics Elective III Credits: 3

**Second Year - Second Semester**

● **MAT 127 - Calculus II** Credits: 4
● **PHY 122 - Physics for Engineers and Physical Scientists II** Credits: 4
  ● or
● **PHY 112 - General Physics II** Credits: 4
Human Value/Social Context and Ethics Elective and/or Elective Credits: 6

Third Year - First Semester

- **MAT 228 - Calculus III** Credits: 4  
- **PHY 261 - Physical Measurements Laboratory I** Credits: 2  
- **PHY 236 - Introductory Quantum Physics** Credits: 3  
- **PHY 472 - Geometrical and Fourier Optics** Credits: 3  
- Human Value/Social Context and Ethics Elective V Credits: 3

Third Year - Second Semester

- **MAT 259 - Differential Equations** Credits: 3  
- **PHY 223 - Special Relativity** Credits: 1  
- **PHY 231 - Mathematical Methods in Physics** Credits: 3  
- **PHY 241 - Computational Physics** Credits: 3  
- **PHY 262 - Electronics** Credits: 2  
- Human Value/Social Context and Ethics Elective or Elective Credits: 3

Fourth Year - First Semester

- **PHY 364 - Modern Experimental Physics** Credits: 2  
- **PHY 400 - Career Preparation in Physics and Engineering Physics II** Credits: 1  
- **PHY 451 - Mechanics** Credits: 3  
- **PHY 454 - Electricity and Magnetism I** Credits: 3  
- **PHY 481 - Project Laboratory in Physics I** Credits: 3  
- Human Value/Social Context and Ethics Elective or Elective or Physics Elective Credits: 3

Fourth Year - Second Semester

- **PHY 365 - Mechanics Laboratory** Credits: 2  
- Human Value/Social Context and Ethics Elective(s) and/or Elective(s) and/or Physics Elective(s) Credits: 13