MAJOR COURSES

- PHYS 141 General Physics IA 4
- PHYS 132 General Physics II (B3 & B4)* 4
- PHYS 133 General Physics III 4
- PHYS 202 Physics on the Computer 4
- PHYS 206 Instrumentation in Experimental Phys. 3
- PHYS 211 Modern Physics I 4
- PHYS 212 Modern Physics II 4
- PHYS 256 Electrical Measurements Laboratory 1
- PHYS 301 Thermal Physics I 3
- PHYS 323 Optics 5
- PHYS 302 Classical Mechanics I 4
- PHYS 322 Classical Mechanics II 5
- PHYS 340 Quantum Physics Laboratory I 2
- PHYS 341 Quantum Physics Laboratory II 2
- PHYS 342 Quantum Physics Laboratory III 2
- PHYS 357 Advanced Instrumentation in Experimental Physics 3
- PHYS 401 Thermo-Stat 4
- PHYS 408 Electromagnetic Fields and Waves I 4
- PHYS 461 Senior Project I or Advanced Physics electives or Concentration 4
- PHYS 463 Senior Project - Lab Research I 2
- PHYS 462 Senior Project II or 4
- PHYS 464 Senior Project - Lab Research II 2
- CHEM 127 General Chemistry 4
- CHEM 128 General Chemistry 4
- MATH 141 Calculus I (B1)* 4
- MATH 142 Calculus II (B1)* 4
- MATH 143 Calculus III 4
- MATH 241 Calculus IV 4
- MATH 244 Linear Analysis I 4
- MATH 304 Vector Analysis 4
- MATH 344 Linear Analysis II 4
- PHYS 462 Senior Project II or 4
- PHYS 357 Advanced Instrumentation in Experimental Physics 3
- PHYS 424 or MATH 418 4
- Select one of the following: PHYS 424 or MATH 418. 180

ADVANCED PHYSICS ELECTIVES OR CONCENTRATION

Select either the advanced physics electives or one of the concentrations.

Advanced Physics Electives

Select one of the following: PHYS 424 or MATH 418.

In addition, select courses at the 300 or 400 level with the prefixes PHYS, GEOL, MATH, STAT or CSC (but not CSC 302 nor CSC 310). One of the following may also be chosen: CSC 101, 231, 234. At least 9 of these elective units must have the PHYS prefix. All courses must be taken for a letter grade. For students anticipating an industrial career, PHYS 357, 412, 413, 423, and 452 are suggested electives.

For students anticipating graduate work in physics PHYS 303, 401, 406, 409, 424, and MATH 408 are suggested electives. In addition, PHYS 357 is suggested for students who anticipate becoming experimental physicists.

Electronics Concentration

Students are not be allowed to enroll in EE 228 until they have a) completed PHYS 357 and MATH 344, and b) received the approval of advisors in both Physics and Electrical Engineering. Students are then allowed to enroll in EE courses with physics courses substituting for EE prerequisites.

PHYS 357 Advanced Instrumentation in Experimental Physics 3
- EE 228 Continuous-Time Signals and Systems 4
- EE 302 Classical Control Systems 3
- EE 328 Discrete Time Signals and Systems 3
- EE 342 Control Systems Laboratory 1
- EE 368 Signals and Systems Laboratory 1
- EE 336 Microprocessor System Design or EE 306 and EE 346 Semiconductor Device Electronics and Laboratory 4

GENERAL EDUCATION (GE)

72 units required; 12 units are in Major.

Area A Communication (12 units)

- A1 Expository Writing 4
- A2 Oral Communication 4
- A3 Reasoning, Argumentation, and Writing 4

Area B Science and Mathematics (4 units)

- B1 Mathematics/Statistics * 8 units in Major 0
- B2 Life Science 4
- B3 Physical Science * 4 units in Major 0
- B4 One lab taken with either a B2 or B3 course 4

Area C Arts and Humanities (20 units)

- C1 Literature 4
- C2 Philosophy 4
Electro-optics Concentration

Students are not allowed to enroll in EE 228 until they have
a) completed PHYS 357 and MATH 344, and b) received
approval of advisors in both Physics and Electrical
Engineering. Students are then allowed to enroll in EE
courses with physics courses substituting for EE
prerequisites.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 357 Advanced Instrumentation in Exp Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 423 Advanced Optics</td>
<td>4</td>
</tr>
<tr>
<td>EE 228 Continuous-Time Signals and Systems</td>
<td>4</td>
</tr>
<tr>
<td>EE 403 Fiber Optics Communication</td>
<td>3</td>
</tr>
<tr>
<td>EE 418 Photonic Engineering</td>
<td>3</td>
</tr>
<tr>
<td>EE 443 Fiber Optics Laboratory</td>
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<tr>
<td>EE 458 Photonic Engineering Laboratory</td>
<td>1</td>
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