# Applied Physics, B.S.

## Academic Plans

### Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the University's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

**Before the third semester begins:** calculus II and physics II.

**Before the fifth semester begins:** physics III-IV, introduction to linear algebra, calculus III, one more course in the major, and up to four courses in another science or engineering department.

**Before the seventh semester begins:** two to four more courses in the major, up to three other science or engineering courses, and at least 90 s.h. earned toward the degree.

**Before the eighth semester begins:** two or three more courses in the major or other science or engineering courses and all or part of an academic year research experience or a summer research experience or internship as approved by the applied physics coordinator.

**During the eighth semester:** enrollment in all remaining coursework in the major, all remaining CLAS Core courses, and a sufficient number of semester hours to graduate.

## Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

## Applied Physics, B.S.

### Medical Physics Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS:1701</td>
<td>Physics I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM:1110</td>
<td>Principles of Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH:1850</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>ENGL:1200</td>
<td>The Interpretation of Literature</td>
<td>3-4</td>
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<td>CSI:1600</td>
<td>Success at Iowa</td>
<td>2</td>
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<tr>
<td>PHYS:1702</td>
<td>Physics II</td>
<td>4</td>
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<tr>
<td>CHEM:1120</td>
<td>Principles of Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH:1860</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>RHET:1030</td>
<td>Rhetoric</td>
<td>3-4</td>
</tr>
<tr>
<td>ENGL:1200</td>
<td>The Interpretation of Literature</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours:** 17-18

### Third Year

**Fall**

- PHYS:3741 Introduction to Quantum Mechanics I
- PHYS:3811 Electricity and Magnetism I
- CHEM:2210 Organic Chemistry I
- GE CLAS Core: Values and Culture
- GE CLAS Core: World Languages Second Level

**Total Hours:** 15-17

### Fourth Year

**Fall**

- Major: biology course numbered 2000 or above
- CHEM:2410 Organic Chemistry Laboratory
- GE CLAS Core: Historical Perspectives
- GE CLAS Core: World Languages Second Level

**Total Hours:** 15-16

### Summer

Internship: industrial internship or research practicum

**Total Hours:** 3

**Four Year Fall**

- PHYS:3756 Intermediate Laboratory
- Major: biology course numbered 2000 or above
- CHEM:2410 Organic Chemistry Laboratory
- GE CLAS Core: Historical Perspectives
- Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)

**Total Hours:** 15-16

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a Fulfills a major requirement and may fulfill a GE requirement.
b Enrollment in chemistry courses requires completion of a placement exam.
Applied Physics, B.S.

- Enrollment in math courses requires completion of a placement exam.
- Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.
- GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
- Students in this concentration are required to complete two biology courses (BIOL) numbered 2000 or above (6-8 s.h.)
- Choose from PHYS:3730, PHYS:3742, PHYS:3812, PHYS:4750, or PHYS:4905.
- Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Graduation Services.