

# 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, and up to two more courses in the major.

**Before the seventh semester begins:** two to four more courses in the major and at least 90 s.h. earned toward the degree.

**Before the eighth semester begins:** two or three more courses in the major.

**During the eighth semester:** enrollment in all remaining coursework in the major, all remaining GE 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.

## Physics, B.S.

Course	Title	Hours
<b>Academic Career</b>		
<b>Any Semester</b>		
Research: students are strongly encouraged to be active participants in research within the department.		
GE CLAS Core: Sustainability <sup>a</sup>		
<b>Hours</b>		<b>0</b>
<b>First Year</b>		
<b>Fall</b>		
PHYS:1701	Physics I	4
MATH:1850	Calculus I <sup>b</sup>	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric	3 - 4
GE CLAS Core: Social Sciences <sup>c</sup>		3
CSI:1600	Success at Iowa	2
<b>Hours</b>		<b>16-17</b>
<b>Spring</b>		
PHYS:1702	Physics II	4
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric or The Interpretation of Literature	3 - 4
GE CLAS Core: Diversity and Inclusion <sup>c</sup>		3
<b>Hours</b>		<b>14-15</b>

### Second Year

<b>Fall</b>		
PHYS:2703	Physics III	4
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: Values and Culture <sup>c</sup>		3
GE CLAS Core: World Languages First Level Proficiency or elective course <sup>d</sup>		4 - 5
<b>Hours</b>		<b>15-16</b>
<b>Spring</b>		
PHYS:2704	Physics IV	4
PHYS:3710	Intermediate Mechanics	3
MATH:2850	Calculus III	4
GE CLAS Core: World Languages Second Level Proficiency or elective course <sup>d</sup>		4 - 5
<b>Hours</b>		<b>15-16</b>

### Third Year

<b>Fall</b>		
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3
GE CLAS Core: Historical Perspectives <sup>c</sup>		3
GE CLAS Core: World Languages Second Level Proficiency or elective course <sup>d</sup>		4 - 5
Elective course <sup>e</sup>		1 - 3
<b>Hours</b>		<b>14-17</b>
<b>Spring</b>		
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:3812	Electricity and Magnetism II	3
PHYS:3850	Electronics <sup>f</sup>	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course <sup>d</sup>		4 - 5
<b>Hours</b>		<b>14-15</b>

### Fourth Year

<b>Fall</b>		
PHYS:3730	Statistical Physics	3
PHYS:3756	Intermediate Laboratory <sup>f</sup>	3
Major: upper-level physics course		3
GE CLAS Core: Literary, Visual, and Performing Arts <sup>c</sup>		3
Elective course <sup>e</sup>		3
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
Major: upper-level physics course		3
GE CLAS Core: International and Global Issues <sup>c</sup>		3
Elective course <sup>e</sup>		3
Elective course <sup>e</sup>		3
Elective course <sup>e</sup>		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) <sup>g</sup>		
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>118-126</b>

<sup>a</sup> A Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative and Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Culture.

- b Enrollment in math courses requires completion of a placement exam.
- c 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.
- d 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.
- e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
- f Students who choose PHYS:3850 as one of their two required laboratory courses are advised to take it before they take PHYS:3756 Intermediate Laboratory.
- g 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.