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
Academic Career

Any Semester
Research: students are strongly encouraged to be active participants in research within the department.

Hours 0

First Year

Fall
PHYS:1701 Physics I \(^a\) 4
MATH:1850 Calculus I \(^a, b\) 4
RHET:1030 or ENGL:1200 Rhetoric or The Interpretation of Literature 3 - 4
GE CLAS Core: Social Sciences \(^c\) 3
CSI:1600 Success at Iowa 2

Hours 16-17

Spring
PHYS:1702 Physics II \(^a\) 4
MATH:1860 Calculus II 4
GE CLAS Core: Diversity and Inclusion \(^c\) 3
ENGL:1200 or RHET:1030 The Interpretation of Literature or Rhetoric 3 - 4

Hours 14-15

Second Year

Fall
PHYS:2703 Physics III \(^c\) 4
GE CLAS Core: Values and Culture \(^c\) 3
MATH:2700 Introduction to Linear Algebra 4
GE CLAS Core: World Languages First Level Proficiency or elective course \(^d\) 4 - 5

Hours 15-16

Spring
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 \(^d\) 4 - 5

Hours 15-16

Third Year

Fall
PHYS:3811 Electricity and Magnetism I 3
PHYS:3741 Introduction to Quantum Mechanics I 3
GE CLAS Core: Historical Perspectives \(^c\) 3
GE CLAS Core: World Languages Second Level Proficiency or elective course \(^d\) 4 - 5
Elective course \(^e\) 1 - 3

Hours 14-17

Spring
PHYS:3742 Introduction to Quantum Mechanics II 3
PHYS:3812 Electricity and Magnetism II 3
PHYS:3850 Electronics \(^f\) 4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course \(^d\) 4 - 5

Hours 14-15

Fourth Year

Fall
PHYS:3730 Statistical Physics 3
PHYS:3756 Intermediate Laboratory \(^f\) 3
Major: upper-level physics course 3
GE CLAS Core: Literary, Visual, and Performing Arts \(^c\) 3
Elective course \(^e\) 3

Hours 15

Spring
GE CLAS Core: International and Global Issues \(^c\) 3
Major: upper-level physics course 3
Elective course \(^e\) 3
Elective course \(^e\) 3
Elective course \(^e\) 3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)

Hours 15

Total Hours 118-126

\(^a\) Fulfills a major requirement and may fulfill a GE requirement.
\(^b\) 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.