Physics, BS

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: MATH:1860 Calculus II and PHYS:1702 Physics II.

Before the fifth semester begins: PHYS:2703 Physics III, PHYS:2704 Physics IV, MATH:2850 Introduction to Linear Algebra, 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, BS

Course Title Hours
Academic Career
Any Semester
Research: students are strongly encouraged to be active participants in research within the department.
GE CLAS Core: Sustainability

First Year
Fall
PHYS:1701 Physics I 4
MATH:1850 Calculus I 4
ENGL:1200 The Interpretation of Literature or RHET:1030 Rhetoric 3 - 4
GE CLAS Core: Social Sciences 3
CSI:1600 Success at Iowa 2

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

Hours 16-17

Second Year
Fall
PHYS:2703 Physics III 4
MATH:2700 Introduction to Linear Algebra 4
GE CLAS Core: Values and Culture 3
GE CLAS Core: World Languages First Level Proficiency or elective course 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 4 - 5

Hours 15-16

Third Year
Fall
PHYS:3741 Introduction to Quantum Mechanics I 3
PHYS:3811 Electricity and Magnetism I 3
GE CLAS Core: Historical Perspectives 3
GE CLAS Core: World Languages Third Level Proficiency or elective course 4 - 5
Elective course 1 - 3

Hours 14-17

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

Hours 14-15

Fourth Year
Fall
PHYS:3730 Statistical Physics 3
PHYS:3756 Intermediate Laboratory 3
Major: upper-level physics course 3
GE CLAS Core: Literary, Visual, and Performing Arts 3
Elective course 3

Hours 15

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

Hours 15

Total Hours 118-126

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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.