

Applied 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:2700 Introduction to Linear Algebra, MATH:2850 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, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability ^a		0
First Year		
Fall		
PHYS:1701	Physics I	4
CHEM:1110	Principles of Chemistry I ^b	4
MATH:1850	Calculus I ^c	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
Hours		16-17
Spring		
PHYS:1702	Physics II	4
CHEM:1120	Principles of Chemistry II	4
MATH:1860	Calculus II	4

RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
Hours		15-16

Second Year		
Fall		
PHYS:2703	Physics III	4
BIOL:1411	Foundations of Biology	4
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: World Languages First Level Proficiency or elective course ^d		4 - 5
Hours		16-17

Spring		
PHYS:2704	Physics IV	3 - 4
BIOL:1412	Diversity of Form and Function	4
MATH:2850	Calculus III	4
GE CLAS Core: World Languages Second Level Proficiency or elective course ^d		4 - 5
Hours		15-17

Third Year		
Fall		
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3
CHEM:2210	Organic Chemistry I	3
GE CLAS Core: Understanding Cultural Perspectives ^e		3
GE CLAS Core: World Languages Third Level Proficiency or elective course ^d		4 - 5
Hours		16-17

Spring		
PHYS:3710	Intermediate Mechanics	3
PHYS:3850	Electronics	4
CHEM:2220	Organic Chemistry II	3
GE CLAS Core: Values and Society ^e		3
GE CLAS Core: World Languages Fourth Level Proficiency ^d		4 - 5
Hours		17-18

Summer		
Internship: industrial internship or research practicum		3
Hours		3

Fourth Year		
Fall		
PHYS:3756	Intermediate Laboratory	3
CHEM:2410	Organic Chemistry Laboratory	3
Major: biology course numbered 2000 or above ^f		3 - 4
GE CLAS Core: Historical Perspectives ^e		3
GE CLAS Core: Literary, Visual, and Performing Arts ^e		3
Hours		15-16

Spring		
BIOS:4120 or STAT:3510	Introduction to Biostatistics or Biostatistics	3
Major: biology course numbered 2000 or above ^f		3 - 4
Major: medical concentration select one course ^g		3
GE CLAS Core: International and Global Issues ^e		3

GE CLAS Core: Social Sciences^e 3

Degree Application: apply on MyUI before deadline
(typically in February for spring, September for fall)

Hours	15-16
Total Hours	128-137

- 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 or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.
- b Enrollment in chemistry courses requires completion of a placement exam.
- c Enrollment in math courses requires completion of a placement exam.
- d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
- e 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.
- f Students in this concentration are required to complete two biology courses (BIOL) numbered 2000 or above (6-8 s.h.)
- g Choose from PHYS:3730, PHYS:3742, PHYS:3812, PHYS:4750, or PHYS:4905.
- h Please see Academic Calendar, on 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 Degree Services.