

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

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability ^a		
Hours		0
First Year		
Fall		
PHYS:1701	Physics I	4
CHEM:1110	Principles of Chemistry I ^b	4
MATH:1850	Calculus I ^c	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric	3 - 4
CSI:1600	Success at Iowa	2
Hours		17-18
Spring		
PHYS:1702	Physics II	4
CHEM:1120	Principles of Chemistry II	4
MATH:1860	Calculus II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric	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: Diversity and Inclusion ^e		3
GE CLAS Core: World Languages Second 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 Culture ^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

STAT:3510 or BIOS:4120	Biostatistics or Introduction to 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	129-138

- 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 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 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 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, 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.