Biochemistry, 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 seventh semester begins: PHYS:1611 Introductory Physics I or PHYS:1511 College Physics I, PHYS:1612 Introductory Physics II or PHYS:1512 College Physics II, BMB:3150 Development of Senior Research Project, one semester of BMB:3993 Undergraduate Biochemistry Research for students planning to take BMB:4999 Advanced Undergraduate Biochemistry Research, BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, BMB:3140 Experimental Biochemistry, two science electives, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: BMB:4240 Biophysics and Advanced Biochemistry or CHEM:4430 Principles of Physical Chemistry or CHEM:4431 Physical Chemistry I or CHEM:4432 Physical Chemistry II, a science elective, and at least 3 s.h. of BMB:4999 Advanced Undergraduate Biochemistry Research.

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.

Biochemistry, B.S.

Course | Title | Hours
--- | --- | ---
Any Semester
Students in good academic standing can switch from the B.A. to the B.S. degree program after completing one semester of organic chemistry (CHEM:2210 Organic Chemistry I or CHEM:2230 Organic Chemistry I for Majors).

GE CLAS Core: Sustainability

Four-Year Graduation Plan

First Year
Fall
CHEM:1110 Principles of Chemistry I b, c 4
MATH:1850 Calculus I c, d 4
RHET:1030 or ENGL:1200 Rhetoric or The Interpretation of Literature 3 - 4
CSI:1600 Success at Iowa 2
Elective course e 1

Hours 14-15

Spring
CHEM:1120 Principles of Chemistry II c 4
ENGL:1200 or RHET:1030 The Interpretation of Literature or Rhetoric 3 - 4
MATH:1860 Calculus II 4
GE CLAS Core: Diversity and Inclusion f 3
Elective course e 1

Hours 15-16

Second Year
Fall
BIOL:1411 Foundations of Biology c 4
CHEM:2210 or CHEM:2230 Organic Chemistry I or Organic Chemistry I for Majors 3
GE CLAS Core: Historical Perspectives f 3
GE CLAS Core: World Languages First Level Proficiency or elective course g 4 - 5
Elective course e 2

Hours 16-17

Spring
BIOL:1412 Diversity of Form and Function c 4
CHEM:2220 or CHEM:2240 Organic Chemistry II or Organic Chemistry II for Majors 3
CHEM:2420 or CHEM:2410 Organic Chemistry Laboratory for Majors or Organic Chemistry Laboratory 3
Major: science elective (consult with advisor) h 3
GE CLAS Core: World Languages Second Level Proficiency or elective course g 4 - 5

Hours 17-18

Third Year
Fall
BMB:3120 Biochemistry and Molecular Biology I 3
BMB:3993 Undergraduate Biochemistry Research 3
PHYS:1511 or PHYS:1611 College Physics I c or Introductory Physics I f 4
GE CLAS Core: Values and Culture f 3
GE CLAS Core: World Languages Second Level Proficiency or elective course g 4 - 5

Hours 17-18

Spring
BMB:3130 Biochemistry and Molecular Biology II 3
BMB:3140 Experimental Biochemistry 2

Hours 0
BMB:3150  Development of Senior Research Project  2
PHYS:1512  College Physics II  c  or PHYS:1612  or Introductory Physics II  4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course  g  4 - 5
Elective course  e  1

| Hours | 16-17 |

**Fourth Year**

**Fall**
BMB:4999  Advanced Undergraduate Biochemistry Research  3
CHEM:4431  Physical Chemistry I  i  or Principles of Physical Chemistry  or Biophysics and Advanced Biochemistry  3
Major: science elective (consult with advisor)  h  3
GE CLAS Core: International and Global Issues  f  3
GE CLAS Core: Literary, Visual, and Performing Arts  f  3

| Hours | 15 |

**Spring**
BMB:4999  Advanced Undergraduate Biochemistry Research  3
CHEM:4431  Physical Chemistry I  i  or Physical Chemistry II  or Biophysics and Advanced Biochemistry  3
Major: science elective (consult with advisor)  h  3
Major: science elective (consult with advisor)  h  3
GE CLAS Core: Social Sciences  f  3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)  j

| Hours | 15 |

**Total Hours**  125-131

---
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  Fulfills a major requirement and may fulfill a GE requirement.
d  Enrollment in math courses requires completion of a placement exam.
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  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.
g  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.
h  Students are required to complete 9 s.h. in advanced science electives approved by biochemistry advisor.
i  Students must complete BMB:4240 and one course from CHEM:4430, CHEM:4431, CHEM:4432.
j  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.