## Biochemistry, B.A.

### 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:** CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, MATH:1850 Calculus I, and MATH:1860 Calculus II.


**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, BIOL:3120 Biochemistry and Molecular Biology I, BIOL:3130 Biochemistry and Molecular Biology II, BIOL:3140 Experimental Biochemistry, a science elective, and at least 90 s.h. earned toward the degree.

**Before the eighth semester begins:** CHEM:4430 Principles of Physical Chemistry or CHEM:4431 Physical Chemistry I or CHEM:4432 Physical Chemistry II or BIOL:4241 Biophysical Chemistry I or BIOL:4242 Biophysical Chemistry II, and a science elective.

**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.A.

#### Course Title Hours

**Academic Career**

**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).

| Hours | 0 |

**First Year**

**Fall**

- CHEM:1110 Principles of Chemistry I<sup>a, b</sup> 4
- MATH:1850 Calculus I<sup>a, c</sup> 4
- RHET:1030 Rhetoric<sup>a, c</sup> 3 - 4
  or ENGL:1200 or The Interpretation of Literature 3 - 4

**Spring**

- CHEM:1120 Principles of Chemistry II<sup>a</sup> 4
- RHET:1030 or ENGL:1200 or The Interpretation of Literature 3 - 4
- MATH:1860 Calculus II 4
- GE CLAS Core: Diversity and Inclusion<sup>e</sup> 3
  Elective course<sup>d</sup> 1

**Hours** 14 - 15

**Second Year**

**Fall**

- BIOL:1411 Foundations of Biology<sup>a</sup> 4
- CHEM:2210 or CHEM:2230 Organic Chemistry I or Organic Chemistry I for Majors 3
- GE CLAS Core: Historical Perspectives<sup>e</sup> 3
- GE CLAS Core: World Languages First Level Proficiency or elective course<sup>f</sup> 4 - 5
  Elective course<sup>d</sup> 2

**Hours** 16 - 17

**Spring**

- BIOL:1412 Diversity of Form and Function<sup>a</sup> 4
- CHEM:2240 or CHEM:2220 Organic Chemistry II for Majors or Organic Chemistry II 3
- CHEM:2420 or CHEM:2410 Organic Chemistry Laboratory for Majors or Organic Chemistry Laboratory 3
- GE CLAS Core: World Languages Second Level Proficiency or elective course<sup>f</sup> 4 - 5
  Elective course<sup>d</sup> 2

**Hours** 16 - 17

**Third Year**

**Fall**

- BIOL:3120 Biochemistry and Molecular Biology I 3
- PHYS:1511 College Physics I<sup>a</sup> or PHYS:1611 Introductory Physics I 4
- Major: research or science elective (consult with advisor)<sup>g, h</sup> 3
- GE CLAS Core: Values and Culture<sup>e</sup> 3
- GE CLAS Core: World Languages Second Level Proficiency or elective course<sup>f</sup> 4 - 5

**Hours** 17 - 18

**Spring**

- BIOL:3130 Biochemistry and Molecular Biology II 3
- BIOL:3140 Experimental Biochemistry 2
- PHYS:1612 or PHYS:1512 Introductory Physics II<sup>a</sup> or College Physics II 4
- GE CLAS Core: Literary, Visual, and Performing Arts<sup>e</sup> 3
- GE CLAS Core: World Languages Fourth Level Proficiency or elective course<sup>f</sup> 4 - 5

**Hours** 16 - 17
### Fourth Year

#### Fall

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<th>Course/Program</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM:4431 or BIOC:4241 or CHEM:4430</td>
<td>Physical Chemistry I or Biophysical Chemistry I or Principles of Physical Chemistry</td>
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<tr>
<td>Major: research, independent study, or elective (consult with advisor) g, h</td>
<td></td>
<td>3</td>
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<tr>
<td>Major: science elective (consult with advisor) h</td>
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<td>3</td>
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<tr>
<td>GE CLAS Core: International and Global Issues e</td>
<td></td>
<td>3</td>
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<td>Elective course d</td>
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**Hours** 15

#### Spring

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<td>Major: science elective (consult with advisor) h</td>
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<td>GE CLAS Core: Social Sciences e</td>
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<td>Elective course d</td>
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<td>Elective course d</td>
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Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) i

**Hours** 15

**Total Hours** 124-130

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a. Fulfills a major requirement and may fulfill a GE requirement.
b. Enrollment in chemistry courses requires completion of a placement exam.
c. Enrollment in math courses requires completion of a placement exam.
d. 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.
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 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.
g. Students intending to earn advanced degrees in the biological or health sciences are advised to earn at least 4 s.h. in BIOC:3993 or BIOC:4999.
h. Students are required to complete 6 s.h. in advanced science electives approved by biochemistry advisor.
i. 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.