\[
\begin{array}{|c|c|c|}
\hline
\text{Minimum Credit Hours and Grade Point Averages Required} & \text{Some courses required for the major may also fulfill University General Education and/or College of Arts & Sciences Requirements} \\
\hline
\text{Total Hours} — & \text{CHEMISTRY} & \text{MATH} \\
120 & 1815 & 1823 \\
\text{Major Hours} — & 1415 General Chemistry & \text{Calculus & Analytic Geometry I} \\
40-42 & 1425 General Chemistry cont., or & \text{(5) or} \\
\text{Grade Point Averages:} & 3053 Organic Chemistry & 1914 Differential & Integral Calculus I \\
\text{Overall & Major:} & 3152 Organic Chemistry Lab & \text{(3-4} \\
\text{Combined OU/Transfer} & 3153 Organic Chemistry & \\
-2.00 & 3453 Basic Physical Chemistry & \\
\text{OU} & & \\
-2.00 & 3453 Basic Physical Chemistry & \\
\text{Minimum Credit Hours and Grade Point Averages Required} & 3635 Introduction to Biochemistry & \text{Beginner to} \\
\hline
& 3753 Intro. to Biochemical Methods & \text{Biochemistry} \\
& 4913 Senior Thesis (Capstone), or & \text{(3} \\
& 4923 Senior Project (Capstone), or & \text{or} \\
& 4933 Current Topics in Biochemistry & 2414 Gen. Physics for Life Science, \text{and} \\
& \text{(Capstone)} & 2424 Gen. Physics for Life Science \\
& & \text{or} \\
& & 2514 Gen. Physics for Engr. & Science, \text{and} \\
& & 2524 Gen. Physics for Engr. & Science \\
& & \text{and} \\
& & \text{Free Electives} \\
& & \text{Electives to bring total applicable hours to} \\
& & 120 including 48 upper-division hours. \\
\end{array}
\]

\begin{itemize}
  \item \textbf{CHEMISTRY} \\
  \begin{itemize}
    \item 1915 General Chemistry \\
    \item 1415 General Chemistry cont., or \\
    \item 1425 General Chemistry for Majors \\
    \item 3053 Organic Chemistry \\
    \item 3152 Organic Chemistry Lab \\
    \item 3153 Organic Chemistry \\
    \item 3451 Basic Physical Chemistry Lab \\
    \item 3453 Basic Physical Chemistry \\
    \item 3635 Introduction to Biochemistry \\
    \item 3753 Intro. to Biochemical Methods \\
    \item 4913 Senior Thesis (Capstone), or \\
    \item 4923 Senior Project (Capstone), or \\
    \item 4933 Current Topics in Biochemistry (Capstone) \\
  \end{itemize}

  \item \textbf{PHYSICS} \\
  \begin{itemize}
    \item 1815 General Physics Lab I \\
    \item 2131 General Physics Lab II \\
    \item 2414 Gen. Physics for Life Science, and \\
    \item 2424 Gen. Physics for Life Science \\
    \item 2514 Gen. Physics for Engr. & Science, \text{and} \\
    \item 2524 Gen. Physics for Engr. & Science \\
  \end{itemize}

  \item \textbf{BIODiversity Sciences} \\
  \begin{itemize}
    \item BIOL 1114 Introduction to Biology \\
    \item MBIO 3812 Fund. of Microbiology Lab \\
    \item MBIO 3813 Fund. of Microbiology \\
    \item BIOL/MBIO/PBIO 4843, Intro. to Molecular Biology \\
  \end{itemize}

  \item \textbf{Free Electives} \\
  \text{Electives to bring total applicable hours to} \\
  \text{120 including 48 upper-division hours.}
\end{itemize}
INFORMATION CONCERNING GENERAL RULES, REGULATIONS AND MINIMUM REQUIREMENTS

TOTAL HOURS: A minimum of 120 semester hours acceptable toward graduation must be completed.

UPPER-DIVISION HOURS: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lower-division or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.

ARTS AND SCIENCES HOURS: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.

MAJOR WORK: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level.

PASS/NO PASS ENROLLMENT: A maximum of 16 semester hours of free elective credit may be attempted under this option.

INDIVIDUAL STUDIES (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Research.

P.E. COURSES: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

SENIOR INSTITUTION HOURS: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

RESIDENCY:
- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

GRADE POINT AVERAGES: Students must earn a minimum overall 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

SPECIAL DEGREES: Students may qualify for an Honors degree (cum Laude, Magna cum Laude, or Summa cum Laude) by completing specific requirements of the Honors College. A degree will be earned with Distinction if the student completes at least 60 semester hours at OU with at least a 3.60 combined retention GPA and OU retention GPA. A degree will be earned with Special Distinction if the student completes at least 60 semester hours at OU with at least a 3.90 combined retention GPA and OU retention GPA.

APPLICATION FOR GRADUATION: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. The graduation application is available online on your student search. Deadlines for the OU Graduation Application are: March 1 for Spring certification and the University of Oklahoma Commencement book; July 1 for Summer graduation certification; and, October 1 for Fall graduation certification.

Refer to the OU General Catalog for more complete information.

Suggested Semester Plan of Study — Chemical Biosciences - B155

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree check sheet for official requirements. Students must consult with College of Arts and Sciences and/or Department of Chemistry and Biochemistry academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Arts and Sciences, and Chemical Biosciences major requirements.

<table>
<thead>
<tr>
<th>Year</th>
<th>FIRST SEMESTER</th>
<th>Hours</th>
<th>SECOND SEMESTER</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRESHMAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM</td>
<td>1315, General Chemistry</td>
<td>5</td>
<td>CHEM</td>
<td>1415, General Chemistry cont.</td>
</tr>
<tr>
<td>ENGL</td>
<td>1113, Principles of English Composition (Core I)</td>
<td>3</td>
<td>ENGL</td>
<td>1213, Principles of English Composition (Core I), or</td>
</tr>
<tr>
<td>MATH</td>
<td>1823, Calculus &amp; Analytic Geometry II (Core I), or</td>
<td>3-4</td>
<td>EXPO</td>
<td>1213, Expository Writing (Core I)</td>
</tr>
<tr>
<td>MATH</td>
<td>1914, Differential &amp; Integral Calculus I</td>
<td>3</td>
<td>PHYS</td>
<td>2514, Gen. Physics for Engineering &amp; Science Majors, or</td>
</tr>
<tr>
<td>Social Science (Core III)</td>
<td></td>
<td></td>
<td>PHYS</td>
<td>2414, General Physics for Life Science Oriented Majors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PHYS</td>
<td>1311, Physics I Lab Understanding Artistic Forms (Core IV)</td>
</tr>
</tbody>
</table>

| TOTAL CREDIT HOURS | 14-15 | TOTAL CREDIT HOURS | 16 |

| SOPHOMORE | | | |
| CHEM | 3053, Organic Chemistry | 3 | CHEM | 3152, Organic Chemistry Lab | 2 |
| PHYS | 2524, Gen. Physics for Engineering & Science Majors, or | 4 | CHEM | 3153, Organic Chemistry | 3 |
| PHYS | 2424, General Physics for Life Science Oriented Majors | 3 | MBIO | 3813, Fundamentals of Microbiology | 3 |
| BIOL | 1124, Introduction to Biology (Core II) | 1 | Beginning Foreign Language (Core I) | 5 |
| HIST | 1483, United States 1492-1865, or | 4 | Non-Western Culture (Core IV) | 3 |
| | 1493, United States 1865-Present (Core IV) | 3 | | |

| TOTAL CREDIT HOURS | 15 | TOTAL CREDIT HOURS | 16 |

| JUNIOR | | | |
| CHEM | 3653, Introduction to Biochemistry | 3 | CHEM | 3453, Basic Physical Chemistry Lab | 3 |
| MBIO | 3812, Fundamentals of Microbiology Lab | 2 | CHEM | 3451, Basic Physical Chemistry Lab | 3 |
| BIOL/MBIO/PROB 4843, Introduction to Molecular Biology Western Civilization & Culture (Core IV) Beginning Foreign Language continued (Core I) | 3 | Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| | | 3 | PSC | 1113, American Federal Government (Core III) | 3 |
| | | 3 | Intermediate Foreign Language | 3 |
| | | 5 | Free Elective | 2 |

| TOTAL CREDIT HOURS | 16 | TOTAL CREDIT HOURS | 15 |

| SENIOR | | | |
| CHEM | 3753, Introduction to Biochemical Methods | 3 | $CHEM$ | 4913, Senior Thesis (Capstone), or | 3 |
| BIOL/MBIO, Major Group, Lecture Humanities, upper-division, outside major (Gen. Ed.) | 3 | $CHEM$ | 4923, Senior Project (Capstone), or | 3 |
| | Free Elective, upper-division (3000-4000-level) | 3 | $CHEM$ | 4933, Current Topics in Biochemistry (Capstone) | 4 |
| | Free Elective | 3 | BIOL, Major Group, Lecture with Lab | 3 |
| | Free Elective, upper-division (3000-4000-level) | 3 | Free Elective | 3 |
| | Free Elective | 3 | | |

| TOTAL CREDIT HOURS | 15 | TOTAL CREDIT HOURS | 13 |

S$CHEM$ 4913, 4923, and 4933 are not all offered every semester. Students should plan their capstone experience accordingly.

Bachelor’s degrees require a minimum of 48 hours of upper-division (3000-4000) coursework.

This plan of study should not be used in lieu of academic advisement.

Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their college academic counselor, ELLH 124, 325-4411, https://iadvise.ou.edu/.

Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours. Appointments may be scheduled at https://iadvisen.ou.edu/.