Biochemistry

Major

Biochemists investigate the chemical reactions and mechanisms that govern and regulate life. Biochemistry, therefore, combines the broad perspectives of biology and chemistry and uses diverse approaches to examine the chemistry of living things. The curriculum includes courses in chemistry and biology and provides students with expertise at the interface of these disciplines. The mastery of fundamentals in biology and chemistry permits students to seamlessly integrate ideas from both areas of science and approach problems from an interdisciplinary perspective.

The biochemistry curriculum incorporates class instruction with significant laboratory work, including experimental approaches in protein and nucleic acid chemistry, cell biology, biophysics, and molecular biology. Independent research is encouraged, and research opportunities are provided. The Biochemistry major is administered jointly by the Biology and Chemistry Departments (see the Biology and Chemistry Departments mission statements). Students majoring in Biochemistry are considered to be a part of both departments.

The Biochemistry major consists of eleven courses (40 credit hours), three electives (12 credit hours), and two corequisites (8 credit hours). The major is designed to allow students the flexibility to pursue individual interests as they prepare for their post-college careers.

*Students majoring in Biology and Biochemistry may only count BI 110, 207, and 307 towards both majors. Students majoring in Chemistry and Biochemistry may only count CH 110, 203, 304, and 211 towards both majors. Students majoring in Biology, Chemistry, and Biochemistry may only count BI 110, 207, 307, CH 110, 203, 304, and 211 towards the three majors. Due to significant course overlap, students majoring in Biochemistry are ineligible for a minor in either Biology or Chemistry.

Core Courses

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<th>Item #</th>
<th>Title</th>
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<tr>
<td>BI 110</td>
<td>Biological Investigation</td>
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<tr>
<td>BI 207</td>
<td>Molecular Genetics</td>
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<tr>
<td>BI 307</td>
<td>Cell and Molecular Biology</td>
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<tr>
<td>CH 110</td>
<td>General Chemistry</td>
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<tr>
<td>CH 203</td>
<td>Organic Chemistry I</td>
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<td>CH 211</td>
<td>Quantitative Analysis</td>
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<td>CH 304</td>
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<td>CH 410</td>
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<tr>
<td>CH 442</td>
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Electives

At least three selected from:

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<tr>
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<td>BI 310</td>
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<td>BI 311</td>
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<td>BI 345</td>
<td>Principles of Microbiology</td>
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<tr>
<td>CH 231</td>
<td>Inorganic Chemistry</td>
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<tr>
<td>CH 327</td>
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<td>CH 332</td>
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Total Credits: 60

Required Corequisites

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<tr>
<td>PY 202</td>
<td>College Physics II</td>
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Total Credits: 60