# Bioinformatics

## Recommended Four-Year Plan (Fall 2015)

The recommended four-year plan is designed to provide a blueprint for students to complete their degrees within four years. These plans are the recommended sequences of courses. Students must meet with their Major Advisor to develop a more individualized plan to complete their degree. This plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which are not listed in the plan.

**NOTE:** This recommended Four-Year Plan is applicable to students admitted into the major during the 2015-2016 academic year.

### First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>HRS</th>
<th>Spring Semester</th>
<th>HRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Ed: INTD 101-First Year Seminar</td>
<td>4</td>
<td>BIOL 112-Fundamentals of Biology II*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 110-Fundamentals of Chemistry I</td>
<td>4</td>
<td>CHEM 112-Fundamentals of Chemistry II*</td>
<td>4</td>
</tr>
<tr>
<td>Gen Ed: CRWT 102-Critical Reading &amp; Writing II</td>
<td>4</td>
<td>CMPS 147-Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 110-Fundamentals of Biology I WI</td>
<td>4</td>
<td>Gen Ed: MATH 121- Calculus I*</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>16</td>
<td><strong>Total:</strong></td>
<td>16</td>
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</table>

### Second Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>HRS</th>
<th>Spring Semester</th>
<th>HRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 210-Organic Chemistry I* or CHEM 205-Bio-Organic Chemistry</td>
<td>4</td>
<td>CHEM 212-Organic Chemistry II*</td>
<td>4</td>
</tr>
<tr>
<td>CMPS 148-Computer Science II*</td>
<td>4</td>
<td>BIOL 331-Genetics*</td>
<td>4</td>
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<tr>
<td>PSYC 242-Statistics or ENSC 345-Research Design &amp; Statistics</td>
<td>4</td>
<td>MATH 237-Discrete Structures*</td>
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<tr>
<td><strong>Total:</strong></td>
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<td><strong>Total:</strong></td>
<td>16</td>
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### Third Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>HRS</th>
<th>Spring Semester</th>
<th>HRS</th>
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</thead>
<tbody>
<tr>
<td>BIOL 406-Cell &amp; Molecular Biology* WI</td>
<td>4</td>
<td>BIIN 430-Bioinformatics*</td>
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<tr>
<td>CMPS 231-Data Structures*</td>
<td>4</td>
<td>CMPS 364-Database Design*</td>
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</tr>
<tr>
<td>Bioinformatics Elective (Group I)</td>
<td>4</td>
<td>Gen Ed: Topics in Arts &amp; Humanities or Topics in Social Sciences</td>
<td>4</td>
</tr>
<tr>
<td>School Core: Science In Cultural Perspective Course</td>
<td>4</td>
<td>Gen Ed: AIID 201-Readings in Humanities</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>16</td>
<td><strong>Total:</strong></td>
<td>16</td>
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### Fourth Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>HRS</th>
<th>Spring Semester</th>
<th>HRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPS 345-Analysis of Algorithms*</td>
<td>4</td>
<td>BIIN 450-Advanced Bioinformatics* WI</td>
<td>4</td>
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<tr>
<td>Gen Ed: International Issues</td>
<td>4</td>
<td>Gen Ed: Intercultural North America</td>
<td>4</td>
</tr>
<tr>
<td>Bioinformatics Elective (Group II)</td>
<td>4</td>
<td>Bioinformatics Elective (Group I or II or two semesters Honors Research)</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
<td>4</td>
<td>Elective</td>
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<td><strong>Total:</strong></td>
<td>16</td>
<td><strong>Total:</strong></td>
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**Total Credits Required:** 128 credits  
**GPA:** 2.0
* This course has a pre-requisite. Please refer to the course catalog for information about pre-requisites.
WI: Writing Intensive-3 required in the major