Bioinformatics, Minor

Director: Lisa Petrella, Ph.D.

Bioinformatics is a field that lies at the intersection of biology, statistics and computer science and is focused on the analysis of large biological datasets. This interdisciplinary major gives students training of sufficient depth in both biology and computer science that they are competent to approach problems in bioinformatics from the perspective of both parent fields.

### Interdisciplinary Bioinformatics Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
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</tr>
<tr>
<td>BIOL 3201</td>
<td>Genetics 1</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4201</td>
<td>Genomics and Bioinformatics</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Biology Elective - Choose one of the following:</th>
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<tbody>
<tr>
<td>BIOL 2001</td>
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<tr>
<td>BIOL 3101</td>
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<tr>
<td>BIOL 3400</td>
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<tr>
<td>BIOL 3404</td>
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<tr>
<td>BIOL 4404</td>
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<tr>
<td>COSC 2100</td>
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</tbody>
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<tr>
<th>Choose one of the following:</th>
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<tr>
<td>MATH 2780</td>
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<tr>
<td>MATH 3700</td>
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<tr>
<td>COSC 3570</td>
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<tr>
<td>or MATH 3570</td>
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<tr>
<td>COSC 4610</td>
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<tr>
<td>MATH 4730</td>
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<tr>
<td>MATH 4740</td>
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<td>or MATH 4720</td>
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</table>

Total Credit Hours: 19

1. BIOL 1001 General Biology 1 is a prerequisite for BIOL 3201 Genetics.
2. COSC 1020 Object-Oriented Software Design is a prerequisite for COSC 2100 Data Structures.
3. MATH 1400 Elements of Calculus, MATH 1410 Calculus for the Biological Sciences or MATH 1450 Calculus 1 is a prerequisite for MATH 4740 Biostatistical Methods and Models and MATH 4720 Statistical Methods.

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