## M.Sc. Bioinformatics

### Semester 1

<table>
<thead>
<tr>
<th>CourseCode</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>BIF410</td>
<td>Introduction to Bioinformatics</td>
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<tr>
<td>BIF413</td>
<td>Programming Concepts</td>
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<tr>
<td>BIO421</td>
<td>Cell Biology</td>
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<td>BIO425</td>
<td>Molecular Biology for Bioinformatics</td>
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<td>BIF401</td>
<td>Energy and Interaction in Biological Modeling</td>
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<td>BIF402</td>
<td>Database Design and Implementation for Bioinformatics</td>
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<td>BIF487</td>
<td>Programming for Bioinformatics - Lab</td>
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<td>Bioinformatics Tools - Lab</td>
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**Total Credits** | **23**

### Semester 2

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<td>BIF409</td>
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<td>BIF411</td>
<td><strong>Molecular Sequence Analysis</strong></td>
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<td>BIF412</td>
<td>Mathematics for Bioinformatics</td>
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<td>BIF414</td>
<td>Statistics for Bioinformatics</td>
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<td>BIF415</td>
<td>Machine Learning &amp; Data Mining</td>
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<td>BIO412</td>
<td>Molecular &amp; Cellular Biophysics</td>
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<td>BIO488</td>
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**Total Credits** | **27**

### Semester 3

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<td>BIF513</td>
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<td>BIF518</td>
<td>Mathematical Modeling of Biological Systems</td>
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<td>BIF511</td>
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**Electives**

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<td>Neurobiology &amp; Electrophysiology</td>
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<td>Metagenomics and Microbiome</td>
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