# Spring 2022 Courses

## Full Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Days</th>
<th>Time</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIT 410/510</td>
<td>Manipulation of Recombinant DNA</td>
<td>M/W</td>
<td>12:50-5:50</td>
<td>Goller and Sjogren</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T/R</td>
<td>12:50-2:40</td>
<td>Dums</td>
</tr>
<tr>
<td></td>
<td></td>
<td>W/F</td>
<td>12:50-5:50</td>
<td>Noel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M/W</td>
<td>604/704</td>
<td>Goller</td>
</tr>
</tbody>
</table>

- Introduction to molecular biology and protein chemistry. Theory behind laboratory techniques and overview of molecular cloning strategies. Laboratory sessions involve plasmid isolation, restriction digestion, PCR, transformation, screening molecular clones, SDS-PAGE, affinity chromatography, Western blotting, and an introduction to animal cell culture techniques.

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</thead>
<tbody>
<tr>
<td>BIT 295</td>
<td>Biotechnology &amp; Sustainability</td>
<td>T/R</td>
<td>10:15-11:30</td>
<td>Goller and Sjogren</td>
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<tr>
<td></td>
<td></td>
<td>W</td>
<td>10:40-12:30</td>
<td>Hasley</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M/W</td>
<td>604/704</td>
<td>Goller</td>
</tr>
<tr>
<td>BIT 402/502</td>
<td>Professional Development</td>
<td>M/W</td>
<td>3:00-4:15</td>
<td>Chen</td>
</tr>
<tr>
<td>BIT 815-301</td>
<td>Capstone Biotechnology</td>
<td>F</td>
<td>10:40-12:30</td>
<td>Kelly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M/W/F</td>
<td>8:30-10:20</td>
<td>Whetten</td>
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<tr>
<td>BIT 815-303</td>
<td>Deep Sequencing Analysis</td>
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### Session 1 (8 weeks)

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BIT 464/564</td>
<td>Protein Purification</td>
<td>M/W</td>
<td>12:50-5:50</td>
<td>Kelly</td>
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<tr>
<td>BIT 474/574</td>
<td>Plant Genetic Engineering</td>
<td>W</td>
<td>12:50-5:50</td>
<td>Dums</td>
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<tr>
<td>BIT 471/571</td>
<td>RNA Interference</td>
<td>R</td>
<td>12:50-5:50</td>
<td>Srougi</td>
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<tr>
<td>BIT 495/595</td>
<td>Directed Evolution</td>
<td>T/R</td>
<td>12:50-5:50</td>
<td>Chen</td>
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<tr>
<td>BIT 482/582</td>
<td>Virus Biotechnology</td>
<td>T</td>
<td>12:50-5:50</td>
<td>Chen</td>
</tr>
<tr>
<td>BIT 495/595</td>
<td>Illuminating Disease with Chemical Biology</td>
<td>T/R</td>
<td>8:30-12:00</td>
<td>Fikes</td>
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<tr>
<td>BIT 495/595</td>
<td>Synthetic Biology</td>
<td>T</td>
<td>12:50-5:50</td>
<td>Stepanova and Alonso</td>
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<tr>
<td>BIT 495/595</td>
<td>Next-Gen Forensics</td>
<td>W</td>
<td>12:50-5:50</td>
<td>Meiklejohn</td>
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<tr>
<td>BIT 495/595</td>
<td>Comparative Plant Transcriptomics</td>
<td>M</td>
<td>12:50-5:50</td>
<td>Sjogren</td>
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<tr>
<td>BIT 572-301</td>
<td>Metabolic Modeling</td>
<td>W</td>
<td>12:50-5:50</td>
<td>Whitham and Goller</td>
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### Session 2 (8 weeks)

<table>
<thead>
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<th>Time</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIT 479/579</td>
<td>High Throughput Discovery</td>
<td>T</td>
<td>12:50-5:50</td>
<td>Goller and Sjogren</td>
</tr>
<tr>
<td>BIT 495/595</td>
<td>Cancer Drug Discovery &amp; Development</td>
<td>R</td>
<td>12:50-2:40</td>
<td>Srougi</td>
</tr>
<tr>
<td>BIT 495/595</td>
<td>Biological Electron Microscopy</td>
<td>T</td>
<td>12:50-5:50</td>
<td>Bell</td>
</tr>
<tr>
<td>BIT 495/595</td>
<td>Environmental DNA Analysis and Applications</td>
<td>M</td>
<td>12:50-5:50</td>
<td>Hasley</td>
</tr>
<tr>
<td>BIT 495/595</td>
<td>Comparative Plant Transcriptomics</td>
<td>M</td>
<td>12:50-5:50</td>
<td>Sjogren</td>
</tr>
<tr>
<td>BIT 572-301</td>
<td>Proteomics</td>
<td>R</td>
<td>1:30-4:15</td>
<td>Williams</td>
</tr>
</tbody>
</table>

Questions? Contact: Dr. Carlos Goller (ccgoller@ncsu.edu)