### CURRICULUM IN BIOLOGICAL SCIENCES
#### MICROBIOLOGY / MOLECULAR BIOLOGY CONCENTRATION

<table>
<thead>
<tr>
<th>YEAR: 2021 / 2022</th>
<th>YEAR ENTERED SLU: _______</th>
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<tbody>
<tr>
<td>NAME:_____________</td>
<td>W#______________________</td>
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<table>
<thead>
<tr>
<th>MAJOR HOURS (41)</th>
<th>C or Better^2</th>
<th>MATHEMATICS (9)</th>
<th>SOCIAL SCIENCES (6)</th>
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</thead>
<tbody>
<tr>
<td>Core Requirements (21 hrs)</td>
<td></td>
<td>1,2MATH 161 3</td>
<td>(Anth, Econ, Geog, Psyc, Poli, Soc)</td>
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<tr>
<td>GBIO 151 3</td>
<td>MATH 162 3</td>
<td>__<strong><strong><strong><strong>3</strong></strong></strong></strong></td>
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<tr>
<td>BIOL 152 1</td>
<td>MATH 163 3</td>
<td>__<strong><strong><strong><strong>3</strong></strong></strong></strong></td>
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<tr>
<td>GBIO 153 3</td>
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<tr>
<td>BIOL 154 1</td>
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<tr>
<td>MIC 205 3</td>
<td>or 1MATH 175 and 200 (10)</td>
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<tr>
<td>MICL 207 1</td>
<td>MATH 175 5</td>
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<tr>
<td>2GBIO 200 3</td>
<td>MATH 200 5</td>
<td></td>
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<tr>
<td>2GBIO 312 3</td>
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<td></td>
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<tr>
<td>GBIO 241 1</td>
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<td></td>
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<td>GBIO 341 1</td>
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<tr>
<td>GBIO 441**</td>
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**ENGLISH (12)**

ENGL 101 or 121H 3
ENGL 102 or 122H 3
ENGL 230 or 231 or 232 3
ENGL 322 3

**CHEMISTRY (20)**

2CHEM 121 3
CLAB 123 1
CHEM 122 3
CLAB 124 1
CHEM 265 3
CLAB 267 1
CHEM 266 3
CLAB 268 1
CHEM 481 3
CLAB 485 1

**FOR. LANGUAGES (6)**

101 3
102 3

**ART ELECTIVE (Mus, Art, Dnc, Thea)**

LS 102 3
COMM211 3
HIST 3
SE 101 2

**ELECTIVES (6)**

SE 101 is not required for transfer or readmitted students with 30 hrs or more. These students are required to take two additional hrs of electives (i.e., 8 hrs instead of 6 hrs)

**CHEMISTRY (20)**

TOTAL HOURS 120

**NOTES:**
1. Students with Math ACT <21 take MATH 151 in place of MATH 161. Students who are eligible may take MATH 175 and 200 (10 credit hours) in place of MATH 161, 162, and 163 (9 credit hours). Students who take MATH 175 and 200 are required to take one less hour of electives (i.e., 5 hrs instead of 6 hrs).
2. Grade of “C” or better in CHEM 121, MATH 151 or 161, and all Biology courses is required. Also, CHEM 121 and MATH 151 or 161 are prerequisites for GBIO 200, and GBIO 200 is a prerequisite for GBIO 312.
**GBIO 441 fulfills requirement for computer literacy

**ADDITIONAL COURSES:**

AVERAGES

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<tr>
<th>HA</th>
<th>HE</th>
<th>QP</th>
<th>Average</th>
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<tbody>
<tr>
<td>CUM: (Adj)</td>
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<tr>
<td>MAJOR (Adj)</td>
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<td>SLU: (Adj)</td>
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**TOTAL HOURS 120**
MICROBIOLOGY / MOLECULAR BIOLOGY CONCENTRATION

I. Core Courses (page 1): 21 CREDIT HOURS (Grade of "C" or better required in all courses)
II. Upper-level courses for the Microbiology and Molecular Biology Concentration.
20 CREDIT HOURS from the following courses with approval of advisor (Grade of "C" or better required in all courses)

GROUP A: Fundamental courses – total 8 hrs – the following two courses are required
   MIC 325 Advanced General Microbiology 4 hrs
   MIC 461 Bacterial Metabolism 4 hrs

GROUP B: Electives – minimum 12 hrs
   MIC 313 Microbial Ecology 3 hrs
   MIC 338 Soil Microbiology 4 hrs
   MIC 423 Environmental Microbiology 4 hrs
   MIC 436 Pathogenic Bacteria 4 hrs
   MIC 457 Dairy and Food Microbiology 4 hrs
   MIC 460 Immunology 4 hrs
   MIC 463 Virology 4 hrs
   MIC 465 Recombinant DNA Techniques 4 hrs
   CHEM 482 Biochemistry II 3 hrs
   CLAB 486 Biochemistry II Laboratory 1 hr
   BOT 401 Plant Pathology 4 hrs
   BOT 426 Plant Physiology 4hrs
   GBIO 314 Genetics Laboratory 2 hrs
   GBIO 377 Applied Biostatistics 4hrs
   GBIO 408 Computational Biology 4 hrs
   GBIO 434 Molecular Biology and Biotechnology 4 hrs
   GBIO 495 Electron Microscopy 4 hrs
   ZOO 392 Animal Physiology 4 hrs
   ZOO 455 Medical Parasitology 4hrs
   ZOO 465 Animal Development 4 hrs
   ZOO 471 Comparative Endocrinology 4hrs
   ZOO 499 Neurobiology 4 hrs

(NOTE: * these electives require PRIOR approval of student’s advisor and Department Head.)
*GBIO 409 Internship – Variable credits, 1 to 3 hours (Max 3 hours total)
*GBIO 450 Research Problems – Variable credits, 1 to 4 hours (Max 4 hours total)
*GBIO 493 Special Topics in Biology – Variable credits, 2 to 4 hours