BIOLOGY MAJOR – BS TRACK – 37 HOURS
This information is effective for the FALL 2018 catalog

All course in Biology and supportive courses must be completed with a minimum grade of C or higher.
Note: In order to fulfill the 50% major residency requirement, at least 19 credit hours of biology major coursework must be completed at UNM.

1: Complete the 4-course introductory sequence:

<table>
<thead>
<tr>
<th>Introductory Courses</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre/Co-Requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 201L</td>
<td>Molecular &amp; Cell Biology</td>
<td>4</td>
<td>Prerequisite: CHEM 121 (or 131) &amp; 123L</td>
</tr>
<tr>
<td>BIOL 202L</td>
<td>Genetics</td>
<td>4</td>
<td>Prerequisites: CHEM 121 (or 131) &amp; 123L and BIOL 201L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre or Co-requisite: CHEM 122 (or 132) &amp; 124L</td>
</tr>
<tr>
<td>BIOL 303 &amp; 303L</td>
<td>Ecology &amp; Evolution</td>
<td>4 (3/1)</td>
<td>Prerequisites: BIOL 202L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre or Co-requisite: MATH 180 (or MATH 162)</td>
</tr>
<tr>
<td>BIOL 304 &amp; 304L</td>
<td>Plant &amp; Animal Form &amp; Function</td>
<td>4 (3/1)</td>
<td>Prerequisites: CHEM 122 (or 132) &amp; 124L and BIOL 303 &amp; 303L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre or Co-requisite: MATH 180 (or MATH 162)</td>
</tr>
</tbody>
</table>

2: Complete ONE (1) of the following 300-level courses w/lab:

<table>
<thead>
<tr>
<th>300-level Course w/lab</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 351 &amp; 352L</td>
<td>General Microbiology</td>
<td>4 (3/1)</td>
<td>Prerequisites: BIOL 304 &amp; 304L</td>
</tr>
<tr>
<td>BIOL 360L</td>
<td>General Botany</td>
<td>4</td>
<td>Prerequisites: BIOL 304 &amp; 304L</td>
</tr>
<tr>
<td>BIOL 371L</td>
<td>Invertebrate Biology</td>
<td>4</td>
<td>Prerequisites: BIOL 304 &amp; 304L</td>
</tr>
<tr>
<td>BIOL 386L</td>
<td>General Vertebrate Zoology</td>
<td>4</td>
<td>Prerequisites: BIOL 304 &amp; 304L</td>
</tr>
</tbody>
</table>

3: Complete FOUR (4) 400-level courses from THREE (3) different categories/areas: (Prerequisites vary; check catalog. BIOL 400, BIOL 402, BIOL 499 cannot count toward this requirement.)

<table>
<thead>
<tr>
<th>400-level Course</th>
<th>Course category/area</th>
<th>Course category/area</th>
<th>Course category/area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td>Any</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td>Must be different category/area than course #1 &amp; #3</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
<td>Must be different category/area than course #1 &amp; #2</td>
<td></td>
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<tr>
<td>4)</td>
<td></td>
<td>Any</td>
<td></td>
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</tbody>
</table>

400-level course categories/areas listed on reverse

4: Complete additional biology major elective courses so that the total number of biology hours totals at least 37.

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit hours</th>
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<tr>
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</tbody>
</table>

The following courses cannot be applied toward biology elective hours: BIOL 110, BIOL 112L, BIOL 123, BIOL 124L, and BIOL 239L.
Up to 4 credit hours of BIOL 402 may be applied toward the biology elective hours.
Up to 4 credit hours of BIOL 400 may be applied toward the biology elective hours.
Up to 2 credit hours of BIOL 499 may be applied toward the biology elective hours.
BIOL 423 may be used toward the biology elective hours ONLY if it is not being used toward the chemistry minor.
EMS 475 may be used toward the biology elective hours.
## Supportive Courses

### MATH

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>OR</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Engineering/Math/Physics majors</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 180</td>
<td>Elements of Calculus I</td>
<td></td>
<td>MATH 162</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 181</td>
<td>Elements of Calculus II</td>
<td></td>
<td>MATH 163</td>
<td>Calculus II</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>OR</td>
<td></td>
<td></td>
<td>Engineering/Math/Physics majors</td>
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### PHYSICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>OR</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Engineering/Math/Physics majors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYC 151</td>
<td>General Physics I</td>
<td></td>
<td>PHYC 160</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYC 152</td>
<td>General Physics II</td>
<td></td>
<td>PHYC 161</td>
<td>General Physics II</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
<td></td>
<td></td>
<td>Engineering/Math/Physics majors</td>
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</tbody>
</table>

### CHEMISTRY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>OR</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Integrated Organic Chemistry &amp; Biochemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 121/123L</td>
<td>General Chemistry I w/lab</td>
<td></td>
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<tr>
<td>CHEM 122/124L</td>
<td>General Chemistry II w/lab</td>
<td></td>
<td>CHEM 212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 301/303L</td>
<td>Organic Chemistry I w/lab</td>
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<td></td>
<td></td>
<td>OR</td>
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</tr>
</tbody>
</table>

### Section 3 Requirement:
Choose four (4) courses from at least three (3) different categories/areas:

#### CELL/MOLECULAR (CM)
- 401 Topics in Cell and Molecular Biology (3)
- 412 Developmental Biology (3)
- 425 Molecular Genetics (3)
- 429 Molecular Cell Biology (3)
- 446L Lab Methods in Molecular Biology (4)
- 450 Virology (3)
- 490 Infectious Organisms (3)
- 497 Principles of Gene Expression (3)
- 498L Genome Editing (3)

#### PHYSIOLOGY (PH)
- 404 Topics in Physiology (3)
- 416L Histology (4)
- 435L Animal Physiology (4)
- 445 Biology of Toxins (3)
- 456 Immunology (3)
- 460 Microbial Physiology (3)

#### INTERDISCIPLINARY (ID)
- 419 Topics in Interdisciplinary Science (3)
- 471 Plant Physiological Ecology (3)
- 480 Global Change Biology (3)
- 492 Introduction to Mathematical Biology (3)
- 495 Limnology (3)

#### ECOLOGY/EVOLUTION (EE)
- 405 Ecosystem Dynamics (3)
- 408L Bosque Internship (3) (Can Be Taken Multiple Times)
- 409 Topics in Ecology and Evolution (3)
- 451 Microbial Ecology (3)
- 455 Ethology: Animal Behavior (3)
- 461L Introduction to Tropical Biology (3)
- 475 Community Ecology (3)
- 491 Population Genetics (3)
- 494 Biogeography (3)

#### ORGANISMAL (OR)
- 406 Topics in Organismal Biology (3)
- 463L Flora of New Mexico (4)
- 482L Parasitology (4)
- 484 Biology of Fungi (4)
- 485L Entomology (4)
- 486L Ornithology (4)
- 487L Ichthyology (4)
- 488L Herpetology (4)
- 489L Mammalogy

Updated 7/30/2018