# Molecular Biology Comprehensive, Bachelor of Science

Offered by Department of Biology (http://catalog.unk.edu/undergraduate/departments-programs/biology/)

## General Studies

**Foundational Requirements (LOPERS 1-4)**  
12-14

- Including:
  - LOPER 4: Mathematics, Statistics, and Quantitative Reasoning
  - Take 1 of the following:
    - MATH 115  Calculus I with Analytic Geometry  
    - or MATH 121: Applied Calculus I

**Broad Knowledge Requirements (LOPERS 5-8)**  
13

- Including:
  - LOPER 8: Natural Science
    - CHEM 160 & 160L  General Chemistry and General Chemistry Laboratory

**Dispositional Requirements (LOPERS 9-10)**  
6

**Wellness (LOPER 11) Optional**  
0

**BS Science-related course requirements**  
5

- PHYS 205 & 205L  General Physics I and Physics I Laboratory

## Program-Specified Requirements

4

- CHEM 161 & 161L  General Chemistry and General Chemistry Laboratory

## Major Option

Complete all required courses  
46-54

Unrestricted electives

Needed to reach 120 credit hour minimum  
34-24

Total Credit Hours  
120

A minimum 2.5 GPA is required in all courses counting toward this major.

## Major Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 231</td>
<td>Research Methods I</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 309</td>
<td>Cellular &amp; Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 359</td>
<td>Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 360</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 450</td>
<td>Advanced Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 421</td>
<td>Seminar in Biology</td>
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</tbody>
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Take two hours from the following:

- BIOL 431A  Research Methods IIA  
- BIOL 431B  and Research Methods IIB

## Biology Comprehensive Supporting Course Requirements

Select one of the following options:  
5-10


or

- CHEM 360 & 360L  Organic Chemistry and Organic Chemistry Laboratory  
- CHEM 361  and Organic Chemistry  
- CHEM 361L  and Organic Chemistry Laboratory

Take the following:

- CHEM 351  Biochemistry I  
- 4

Select 9-12 credit hours of the following:

- BIOL 305  BioStatistics  
- BIOL 311  Bioethics  
- BIOL 325  Medical Terminology  
- BIOL 401  Principles of Immunology  
- BIOL 404  Developmental Biology  
- BIOL 440  Infectious Diseases  
- BIOL 461  Human Genetics  
- BIOL 465  Physiology  
- CHEM 301 & 301L  Analytical Chemistry and Analytical Chemistry Lab  
- CHEM 351L  Biochemistry Lab  
- CHEM 352 & 352L  Biochemistry II and Advanced Biochemistry Lab

Total Credit Hours  
46-54

1  
The Molecular Biology degree requires a minimal mathematical competency at the level of calculus. Students with sufficient preparation may enter the mathematics program at a higher level. Students are required to take a LOPERs 4: Mathematics, Statistical, and Quantitative Reasoning course regardless of entry level. See advisor for math placement.

2  
Designated courses with the appropriate content may be approved to satisfy one of the Broad Knowledge requirements plus LOPER 9 or Broad Knowledge plus LOPER 10. Courses may be approved to satisfy LOPER 9 or LOPER 10 alone. (Courses satisfying LOPER 9 or LOPER 10 alone must be 3 credit hours.) Students applying this option will need to take additional hours in other categories to meet the required GS hours.