## Requirements for Students Matriculating in or before Academic Year 2023-2024
Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college/#70).

**Total Hours:** 90 (Beyond the Bachelor's Degree)

### Required Core Courses
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC 5002</td>
<td>Research Compliance and Biochemistry Graduate Colloquium</td>
<td>2</td>
</tr>
<tr>
<td>BIOC 5112</td>
<td>Articulation of Research Logic</td>
<td>2</td>
</tr>
<tr>
<td>BIOC 5120</td>
<td>Biochemistry and Molecular Biology Graduate Research Colloquium</td>
<td>1</td>
</tr>
<tr>
<td>BIOC 5753</td>
<td>Biochemical Principles</td>
<td>3</td>
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<td>Biochemical Principles</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 5853</td>
<td>Molecular and Integrative Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 5930</td>
<td>Advanced Biochemical Techniques</td>
<td>3</td>
</tr>
<tr>
<td>BIOC 6110</td>
<td>Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

Three hours from:
- BIOC 6723 Signal Transduction
- BIOC 6733 Functional Genomics
- BIOC 6733 Epigenetics
- BIOC 6773 Protein Structure and Enzyme Function
- BIOC 6793 Plant Biochemistry

**Hours Subtotal:** 34

### Electives
Select 41 hours minimum from the following:
- BIOC 4723 Introduction to Bioinformatics
- BIOC 5102 Molecular Genetics
- BIOC 5824 Biochemical Laboratory Methods
- BIOC 6820 Selected Topics in Biochemistry

**Hours Subtotal:** 45

### Required Research
- BIOC 6000 Research

**Hours Subtotal:** 15

**Total Hours:** 60

1 Course to be taken 1 time each year prior to year of graduation.

2 Course to be taken 2 times at one credit each.

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**Other Biochemistry and Molecular Biology, PhD, Requirements**

- Pass PhD Preliminary Examination.
- Pass PhD Candidacy Examination: Present and pass the defense of a written research proposal.
- The student's Graduate Committee must approve the written thesis, and an oral defense on the content of the thesis must be passed.

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**Graduate College Doctor of Philosophy (PhD) Requirements**

Learn more about Graduate College 2023-2024 Doctor of Philosophy (PhD) Degree Program Requirements (http://catalog.okstate.edu/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.