BIOCHEMISTRY AND MOLECULAR BIOLOGY, PHD

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college/#70).

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOC 5002</td>
<td>Research Compliance and Biochemistry Graduate Colloquium</td>
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<tr>
<td>BIOC 5112</td>
<td>Articulation of Research Logic</td>
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<td>BIOC 5120</td>
<td>Biochemistry and Molecular Biology Graduate Research Colloquium</td>
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<tr>
<td>BIOC 5753</td>
<td>Biochemical Principles</td>
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<tr>
<td>BIOC 5853</td>
<td>Molecular and Integrative Metabolism</td>
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<tr>
<td>BIOC 5930</td>
<td>Advanced Biochemical Techniques</td>
<td>3</td>
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<tr>
<td>BIOC 6110</td>
<td>Seminar</td>
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<tr>
<td>BIOC 6723</td>
<td>Signal Transduction</td>
<td>3</td>
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<tr>
<td>BIOC 6733</td>
<td>Functional Genomics</td>
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<td>BIOC 6740</td>
<td>Physical Biochemistry</td>
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<td>BIOC 6753</td>
<td>Epigenetics</td>
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<td>BIOC 6763</td>
<td>Protein Structure and Enzyme Function</td>
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<td>BIOC 6773</td>
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<td>BIOC 6783</td>
<td>Biomembranes and Bioenergetics</td>
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<td>BIOC 6793</td>
<td>Plant Biochemistry</td>
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Hours Subtotal: 34

Electives

Select 41 hours of the following: 41

- BIOC 4723 Introduction to Bioinformatics
- BIOC 5102 Molecular Genetics
- BIOC 5824 Biochemical Laboratory Methods
- BIOC 6820 Selected Topics in Biochemistry (15 Hours Maximum)

Hours Subtotal: 41

Required Research

- BIOC 6000 Research 15

Hours Subtotal: 15

Total Hours: 90

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.

Other Core Courses Listed Below as Required by the Student’s Advisor and Graduate Thesis Advisory Committee:

- BIOC 5723 Introduction to Bioinformatics
- BIOC 5753 Biochemical Principles
- BIOC 5853 Molecular and Integrative Metabolism
- BIOC 5930 Advanced Biochemical Techniques (10 credits maximum)
- BIOC 6110 Seminar
- BIOC 6723 Signal Transduction
- BIOC 6733 Functional Genomics
- BIOC 6740 Physical Biochemistry
- BIOC 6753 Epigenetics
- BIOC 6773 Protein Structure and Enzyme Function
- BIOC 6783 Biomembranes and Bioenergetics
- BIOC 6793 Plant Biochemistry

Electives

Select 15 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 15

Hours Subtotal: 15

Total Hours: 60

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

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.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2022-2023 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.