

# BIOCHEMISTRY AND MOLECULAR BIOLOGY, MS

Requirements for Students Matriculating in or before Academic Year 2024-2025. Learn more about Graduate College Academic Regulation 7.0 (<http://catalog.okstate.edu/graduate-college/#70>).

## Thesis Option

Total Hours: 30

Code	Title	Hours
<b>Coursework</b>		
Combination of core courses and other requirements to equal 24 hours.		24
<i>Required Core Courses</i>		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium <sup>1</sup>	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6110	Seminar	
Plus 2 Advanced (Biochemistry 6000-level courses)		
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
<i>Electives</i>		
BIOC 5723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6820	Selected Topics in Biochemistry	
Other 6000-level BIOC courses		
Other Graduate-level courses approved by the Graduate Thesis Advisory Committee		
<i>Additional Requirements</i>		
The student's Graduate Committee must approve the written thesis and an oral exam on the context of the thesis must be passed.		
<b>Hours Subtotal</b>		<b>24</b>
<b>Required Research</b>		
BIOC 5000	Research	6
<b>Hours Subtotal</b>		<b>6</b>
<b>Total Hours</b>		<b>30</b>

1

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

## Non-Thesis Option

Total Hours: 32

Code	Title	Hours
<b>Coursework</b>		
Combination of core courses and other requirements to equal 30 hours.		30
<i>Core courses</i>		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 6110	Seminar	
Plus 2 Advanced (Biochemistry 6000-level courses)		
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
BIOC 6820	Selected Topics in Biochemistry	
<i>Electives</i>		
BIOC 5102	Molecular Genetics	
BIOC 5723	Introduction to Bioinformatics	
BIOC 5824	Biochemical Laboratory Methods	
Other 6000-level BIOC courses (Graduate-level courses approved by the Graduate Coordinator)		
<i>Other Requirements</i>		
The student's Graduate Committee must approve the written formal report and an oral exam must be passed.		
<b>Hours Subtotal</b>		<b>30</b>
<b>Required Research</b>		
BIOC 5000	Research	2
<b>Hours Subtotal</b>		<b>2</b>
<b>Total Hours</b>		<b>32</b>

## Graduate College Master's Program Requirements

Learn more about Graduate College 2024-2025 Master's 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.