# BIOMEDICAL SCIENCES, PHD

Requirements for Students Matriculating in or before Academic Year 2021-2022. Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college/#70).

**Total Hours:** 60

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOM 6000</td>
<td>Research and Dissertation</td>
<td>30</td>
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<tr>
<td>BIOM 6662</td>
<td>Research Ethics and Survival Skills for the Biomedical Sciences</td>
<td>2</td>
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<tr>
<td>BIOM 6922</td>
<td>Scientific Communication in Biomedical Sciences</td>
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**Optional Electives**

Select 26 hours from the following:

- BIOM 5010 Special Topics in Biomedical Sciences
- BIOM 5020 Biomedical Sciences Seminar
- BIOM 5116 Clinical Anatomy
- BIOM 5122 Introduction and Survey of Human Structure
- BIOM 5133 Neuroanatomy
- BIOM 5144 Histology and Development
- BIOM 5215 Medical Biochemistry
- BIOM 5316 Medical Microbiology and Immunology
- BIOM 5616 Graduate Biomedical Physiology
- BIOM 5621 Introduction to Translational Research
- BIOM 5631 Disease Research in Medicine
- BIOM 5641 Cornerstones of Vertebrate Paleontology
- BIOM 5653 Evolutionary Physiology
- BIOM 5663 Graduate Pharmacology
- BIOM 5672 Scientific Outreach Training for Graduate Students
- BIOM 5683 Chronic Inflammation and Cancer Development
- BIOM 5693 Principle Concepts of Cellular and Molecular Immunology
- BIOM 5703 Applied Multivariate and Evolutionary Analysis of Paleontological Data
- BIOM 5983 Principles of Neuroscience
- BIOM 5993 Principles of Neuroanatomy
- BIOM 6175 Molecular And Cellular Biology
- BIOM 6183 Cellular and Molecular Biology of Pain
- BIOM 6193 Paleommalogy
- BIOM 6214 Advanced Topics in Medical Biochemistry
- BIOM 6233 Enzyme Analysis
- BIOM 6243 Human Nutrition
- BIOM 6263 Techniques in Molecular Biology
- BIOM 6333 Immunology
- BIOM 6343 Microbial Physiology
- BIOM 6353 Molecular Virology
- BIOM 6363 Immunobiology of Infectious Disease
- BIOM 6413 Graduate General Pathology and Laboratory Medicine
- BIOM 6523 Cardiovascular Physiology and Pharmacology
- BIOM 6543 Environmental Toxins in the Brain
- BIOM 6583 Neuroinflammation
- BIOM 6613 Environmental Physiology
- BIOM 6643 Neurophysiology
- BIOM 6653 Graduate Seminar In Signal Transduction
- BIOM 6663 Neuroethology
- BIOM 6673 Genomics
- BIOM 6705 Advanced Gross Anatomy
- BIOM 6723 Field Techniques in Vertebrate Paleontology
- BIOM 6733 Human Microbiome in Health and Disease
- BIOM 6743 Foundations in Medical Genetics, Molecular Biology and Development
- BIOM 6752 Foundations in Medical Cell and Tissue Biology
- BIOM 6762 Foundations in Medical Biochemistry
- BIOM 6771 Foundations in Medical Pharmacology
- BIOM 6781 Foundations in Medical Immunology
- BIOM 6793 Foundations in Medical Microbiology
- BIOM 6800 Critical Readings in Biomedical Sciences
- BIOM 6810 Structure and Function of the Human Cardiovascular System
- BIOM 6820 Structure and Function of the Human Gastrointestinal/Hepatic System
- BIOM 6830 Biomedical Perspectives on Human Hematology
- BIOM 6840 Structure and Function of the Human Musculoskeletal System
- BIOM 6843 Vertebrate Osteology
- BIOM 6850 Structure and Function of the Human Renal System
- BIOM 6860 Structure and Function of the Human Reproductive Systems and Reproductive Biology
- BIOM 6870 Structure and Function of the Human Respiratory System
- BIOM 6880 Biomedical Perspectives on Psychiatry
- BIOM 6810 Structure and Function of the Human Cardiovascular System
- BIOM 6820 Structure and Function of the Human Gastrointestinal/Hepatic System
- BIOM 6830 Biomedical Perspectives on Human Hematology
- BIOM 6840 Structure and Function of the Human Musculoskeletal System
- BIOM 6850 Structure and Function of the Human Renal System
- BIOM 6860 Structure and Function of the Human Reproductive Systems and Reproductive Biology
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BIOM 6870</td>
<td>Structure and Function of the Human Respiratory System</td>
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<tr>
<td>BIOM 6880</td>
<td>Biomedical Perspectives on Psychiatry</td>
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<tr>
<td>BIOM 6900</td>
<td>Structure and Function of the Human Endocrine System</td>
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<tr>
<td>BIOM 6910</td>
<td>Structure and Function of the Human Nervous System</td>
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<tr>
<td>BIOM 6933</td>
<td>Cornerstones of Graduate Biomedical Sciences</td>
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<tr>
<td>BIOM 6943</td>
<td>Advanced Vertebrate Paleontology</td>
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<tr>
<td>BIOM 6952</td>
<td>Paleohistology Techniques</td>
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<tr>
<td>BIOM 6962</td>
<td>Evolutionary Biomechanics</td>
</tr>
<tr>
<td>BIOM 6972</td>
<td>Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders</td>
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**Hours Subtotal**  
26

**Other Requirements**
- Research Proposal
- Qualifying Exam
- Dissertation Defense

**Total Hours**  
60

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

Learn more about Graduate College 2021-2022 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.