

BIOMEDICAL SCIENCES, 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
Required Courses		
BIOM 5000	Research & Thesis	6
BIOM 5003	Statistics for Medical Residents	3
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		13
Optional Electives		
Select 17 hours from the following:		17
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 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 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 6900	Structure and Function of the Human Endocrine System	
BIOM 6910	Structure and Function of the Human Nervous System	
BIOM 6933	Cornerstones of Graduate Biomedical Sciences	
BIOM 6943	Advanced Vertebrate Paleontology	
BIOM 6952	Paleohistology Techniques	
BIOM 6962	Evolutionary Biomechanics	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
Hours Subtotal		17
Total Hours		30

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Courses		
BIOM 5000	Research & Thesis	2
BIOM 5003	Statistics for Medical Residents	3
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		9
Optional Electives		
Select 23 hours from the following:		23
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 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 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 6900	Structure and Function of the Human Endocrine System	
BIOM 6910	Structure and Function of the Human Nervous System	
BIOM 6933	Cornerstones of Graduate Biomedical Sciences	
BIOM 6943	Advanced Vertebrate Paleontology	
BIOM 6952	Paleohistology Techniques	
BIOM 6962	Evolutionary Biomechanics	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
Hours Subtotal		23
Total Hours		32

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.