University of Georgia | College of Veterinary Medicine

Biomedical Physiology – B.S.

Fall 2025

This document is an example of the BS_BIPH program of study. Several factors can affect the course scheduling sequence. For a copy of the official curriculum, please go to the UGA Bulletin: **http://bulletin.uga.edu/.** The most updated version can be found on our website **https://vet.uga.edu/education/undergraduate-programs/b-s-in-biomedical-physiology/**

Major Requirements

Students must complete at least 120 credit hours, including at least 21 semester hours of upper division courses in the major field and at least 39 semester hours of upper division work overall. Students must earn a grade of "C" (2.0) or better in the courses indicated in **bold**.

Depending on the choice of electives, additional coursework may be needed to satisfy graduation requirements.

YEAR ONE					
Fall Semester		**Hours**	**Spring Semester**		**Hours**
CHEM 1211&L	Freshman Chemistry I	4	CHEM 1212&L	Freshman Chemistry II	4
MATH 2250	Calculus I	4		**Statistics Requirement**[1]	4
ENGL 1101	**English Composition I**	3	ENGL 1102	English Composition II	3
	Social Sciences Elective	3		Social Sciences Elective	3
FYOS	First-Year Odyssey Seminar	1	PEDB	Physical Education Course	1
Total Credit Hours		**15**	**Total Credit Hours**		**15**

YEAR TWO					
Fall Semester		**Hours**	**Spring Semester**		**Hours**
CHEM 2211&L	Organic Chemistry I	4	BIOL 1108&L	Principles of Biology II	4
BIOL 1107&L	Principles of Biology I	4		**Additional Required Course**[3]	3
VPHY 3110	**Careers in Biomedical Physiology**	3		**Major Elective**[5]	3
	Humanities & The Arts Elective	3		World Lang & Culture Elective	3
Total Credit Hours		**14**	**Total Credit Hours**		**13**

YEAR THREE					
Fall Semester		**Hours**	**Spring Semester**		**Hours**
PHYS 1111&L	Physics I	4	PHYS 1112&L	Physics II	4
VPHY 3107	**Physiology I**	4	**VPHY 3108**	**Physiology II**	3
VPHY 3107L	**Physiology Lab**	1		**Major Elective**[5]	3
	Biochemistry Requirement[2]	4		World Lang & Culture Elective	3
	World Lang & Culture Elective	3		Social Sciences Elective	3
Total Credit Hours		**16**	**Total Credit Hours**		**16**

YEAR FOUR					
Fall Semester		**Hours**	**Spring Semester**		**Hours**
	VPHY Elective[4]	3		**Additional Required Course**[3]	3
	Major Elective[5]	3		**VPHY Elective**[4]	3
	General Elective	3		General Elective	3
	General Elective	3		General Elective	3
	General Elective	3			
Total Credit Hours		**15**	**Total Credit Hours**		**12**

Biomedical Physiology Requirements (courses in red are recommended):

[1]Statistics Requirement – choose one course

BIOS 2010	Elementary Biostatistics	4
STAT 2000	Introductory Statistics	4
STAT 3110	Intro to Statistics for Life Sciences	4

[2]Biochemistry Requirement – choose one course

BCMB 3100	Intro Biochemistry and Molecular Biology	4
BCMB 4020/6020	Biochemistry and Molecular Biology II (pre-requisite: BCMB 4010/6010)	3

Major Required Course – choose one course

VPHY 3107-3107D	Integrative Concepts Physiology I	4
VPHY 3100 and VPHY 3101	Elements of Physiology Elements of Physiology Seminar	3 1

Major Required Courses – take all three of these – no alternatives

VPHY 3108	Integrative Concepts Physiology II	3
VPHY 3107L	Integrative Concepts Physiology Laboratory	1
VPHY 3110	Careers in Biomedical Physiology	3

[3]Additional Required Courses – choose two courses from the following options:

Veterinary/Medical Histology		
BMSC 4500/6500	Basic Medical Histology	4
BMSC 4997E	Pre-Veterinary/Pre-Medical Histology	3
CBIO 3050E	Medical Histology	3
VPAT 3200	Intro to Histology and Histopathology	3

Vertebrate/Human/Veterinary Anatomy		
BMSC 4999E	Comparative Veterinary Anatomy Pre-Vet	3
*CBIO 2210&L	Anatomy and Physiology II	4
CBIO 3000&L	Comparative Vertebrate Anatomy	4
CBIO 3010&L	Functional Human Anatomy	4
CBIO 3200L	Medical Anatomy	1-3

CBIO 3400	Cell Biology	4

GENE 3200-3200D	Genetics	4

Microbiology		
MIBO 2500&L	Microbiology and Health Care	4
MIBO 3500&L	Introductory Microbiology	4

**CHEM 2212&L	Organic Chemistry II	4

**Pre-professional students who require CBIO 2200&L and CBIO 2210&L should take CBIO 2210&L; CBIO 2200&L is its prerequisite and will count as a general elective.*
***Pre-professional students who require two semesters of Organic Chemistry should take CHEM 2212&L.*

[4]VPHY Required Elective – choose two courses

Course	Course Title	Hours
VPHY 3700	Figuring the Human Body Through Drawing	4
VPHY 3990	Herd Health Study Away	4
VPHY 3995&L	Course-based Research	4
VPHY 4050	PLAs in Physiology	3
VPHY 4150/6150	Reproductive Physiology	3
VPHY 4200/6200	Physiologic Basis of Diseases	3
VPHY 4250/6250	Integrative Pathophysiology	3
VPHY 4300/6300	Endocrine Physiology	3
POPH(VPHY) 4330W/6330W	Scientific Writing	3
VPHY 4350/6350	Clinical Reasoning in Physiological & Pharmacological Contexts	3
VPHY 4400/6400	Principles of Neurophysiology	3
VPHY 4401/6401	Advanced Neurophysiology and Neurological Disorders	3
VPHY 4500/6500	Integrative Cardiovascular and Respiratory Physiology	3
VPHY 4600/6600	Physiological Toxicology	3
VPHY 4700/6700	Gastrointestinal Physiology	3
VPHY 4800/6800	Comparative Physiology	3
VPHY(IDIS) 4850/6850	Immunophysiology	3
VPHY 4950	Special Topics in Biomedical Physiology	1-4
VPHY/KINS 5690&L/5690&L	Skeletal Muscle and Mitochondria Physiology	4

[5]**Major Electives (9-12 hours)**

Choose a minimum of nine (9) hours from the Physiology-related courses below. A maximum of **four** (**4) research hours** in the sciences, e.g., 4960R courses, can count toward the required Major Electives hours.

Course	Course Title	Hours
ADSC 3300	Animal Nutrition & Metabolism	3
ADSC 3400	Physiology of Reproduction in Domestic Animals	3
ADSC 3420	Physiology of Lactation in Farm Animals	3
ADSC(POUL) 4380/6380	Food Animal Growth and Development	3
ADSC 4390/6390-4390L/6390L	Equine Nutrition	3
ADSC 4410/6410-4410L/6410L	Applied Reproductive Management in Cattle and Swine	3
ADSC 4420	Engineering Living Organisms	3
ADSC 4430/6430-4430L/6430L	Equine Exercise Physiology	3
ADSC 4520/6520	Animal Cognition and Behavior	3
ANNU(ADSC) 4360/6360	Ruminant Nutrition	3
ANNU(ADSC) 4370/6370	Monogastric Nutrition	3
BCMB 3433	Biology for Medicine	4
BCMB 4010/6010	Biochemistry & Molecular Biology I	4
BCMB(CHEM) 4110/6110	Physical Biochemistry	3
BCMB 4120/6120	Human Biochemistry & Disease	4
BCMB 4130	Human Biochemistry II	3
BCMB(ENTO)(BTEC) 4200/6200	Biotechnology	3
BIOL(WILD) 3700W	Animal Behavior	3
BIOL 4200W	Science and Health Writing	3
BIOL 4300W/6300W	Scientific Research Writing	3
BMSC 4500/6500	Basic Medical Histology	3
BMSC 4997E	Pre-Veterinary/Pre-Medical Histology	3
BMSC 4998E/6998E	Principles Endocrine Physiology and Pharmacology	3
BMSC 4999E	Comparative Veterinary Anatomy for Pre-Vet Students	3
BTEC(BCMB)(PBIO) 4000L	Methods in Biotechnology	4
CBIO 3000-3000L	Comparative Vertebrate Anatomy	4
CBIO 3010-3010L	Functional Human Anatomy	4
CBIO 3050	Medical Histology, only 3050E is currently offered	3
CBIO 3200L	Medical Anatomy	1-3
CBIO 3400	Cell Biology	4

CBIO 3600	Developmental Biology	4
CBIO 3800	Neurobiology	4
CBIO(MIBO)(IDIS) 4100/6100-4100D/6100D	Immunology	4
CBIO 4500/6500	Medical Parasitology	3
CHEM 4120	Chemistry of Drug Design and Drug Action	3
ECOL(IDIS) 3820	Evolutionary Medicine	3
ECOL 4050/6050-4050L/6050L	Ichthyology	4
ECOL(BIOL) 4150/6150-4150L/6150L	Population Biology of Infectious Diseases	4
ECOL 4240-4240L	Physiological Ecology	4
ECOL 4775/6775-4775L/6775L	Ecological Developmental Biology and Ecotoxicology	4
EHSC 3060	Foundations in Environmental Health	3
EHSC 4490	Environmental Toxicology	3
EHSC 7010	Fundamentals of Environmental Health Science	3
ENGL 3860W	Science Writing for General Audiences	3
ENTO 3645 or ENTO 3650&L	Medical Entomology	3-4
ENTO 4000/6000-4000L/6000L	General Entomology	4
ENTO 4450/6450	Insect Behavior	3
FISH(ECOL)(MARS)(WILD) 4300	Environmental Biology of Fishes)	3
FISH 4500/6500 and 4500L/6500L	Fish Physiology and Laboratory	4
GENE 3200-3200D or GENE 3200H	Genetics or Honors Genetics	4
GENE 4200/6200	Advanced Genetics	3
GENE(CBIO) 4310/6310	Genetic Approaches to Developmental Neuroscience	3
GENE 4500/6500	Human Genetics	3
GRNT 3100E	Early Life Influences on Aging	3
GRNT 3400/7400	Cognition and the Aging Brain	3
GRNT 7600	Pharmacology, Health, and Aging	3
IDIS 3100 or IDIS 3100H	People, Parasites, and Plagues	3
IDIS(POPH) 3110	Food Animal Infectious Diseases	3
IDIS(NUTR) 4200/6200	We Are What We Eat! How Your Gut Influences Your Overall Health	3
KINS 3115E	Structural Kinesiology	3
KINS 3450S	Wellness Practicum for People with Disabilities	1-3
KINS 3500-3500L	Personal Training	3
KINS 3600	Applied Biomechanics	3
KINS 3700	Applied Exercise Physiology	3
KINS 4150/6150	Global Issues in Sports Medicine	3
KINS 4600/6600	Measurement and Surveillance of Physical Activity	3
KINS 4630/6630-4630L/6630L	Exercise Physiology	3
KINS 4680/6680	Integrative Cardiovascular Physiology	3
KINS 4690/6690	Neuromuscular Physiology	4
KINS 4750S/6750S	Service Learning in KINS	1-3
KINS 5140/7140	Current Problems in Kinesiology	1-3
LAMS 3000E	Foundations of Clinical Medicine I	3
LAMS 3010E	Foundations of Clinical Medicine II	3
LAMS 3020E	Foundations of Clinical Medicine III	3
LAMS 3400	Foundations in Large Animal Emergency Critical Care	3
MARS 3550	Life in Fluids	3
MIBO(POPH) 4220/6220 or 4220S/6220S	Pathogenic Bacteriology	3
MIBO 4700/6700	Medical Mycology	3
NUTR 3100	Macronutrients & Energy Balance	3
NUTR 4050/6050	Optimal Nutrition for the Life Span	3
NUTR 4100/6100	Micronutrient Nutrition	3
NUTR(KINS) 4220/6220	Nutrition in Physical Activity, Exercise, Sport	3
NUTR 4530/6530	Medical Nutrition Therapy II	4
NUTR 4590/6590	Metabolism & Physiology of Energy Balance and Obesity	3
NUTR 4800/6800	Nutrition and Pharmacotherapy for Disease Management	3

PATH(PBIO) 3010	Fungi: Friends & Foes	3
PBIO(CRSS) 4500/6500	Intro to Gene Technology	3
PHIL 3220	Biomedical Ethics	3
PHIL 4260/6220	Advanced Topics in Bioethics	3
PHRM(PMCY) 4000	The War on Cancer	3
PHRM(PMCY) 5050/7050	Abused Drugs	3
PMCY 3800	Introduction to Pharmacology	3
PMCY 4020/6020 – formerly PMCY 3000	Human Physiology	4
PMCY 4200/6200	Pharmacokinetics & Pharmacodynamics	3
PMCY 4300/6300	Medicinal Chemistry	3
PMCY 4600/6600	Biological Therapeutics	3
POUL 3000-3000L	Avian Surgical Techniques	4
POUL 3123	Avian Biology: Ecology, Physiology, and Behavior	3
POUL 3750	Integrated Animal Nutrition	4
POUL(BIOL) 4060/6060	Reproductive Endocrinology	3
POUL 4175	Avian Anatomy & Physiology	3
POUL 4200/6200-4200L/6200L	Avian Anatomy & Physiology	4
POUL 4300/6300	Nutritional Immunology in Health & Production	3
PSYC 3700	Schizophrenia	3
PSYC 4120	Sensation & Perception	3
PSYC 4130	Physiological & Comparative Psychology	3
PSYC 4140	Cognitive Neuroscience	3
PSYC 4150	Biological Foundations of Health Psychology	3
PSYC 5850	Psychopharmacology – Drugs and Behavior	3
VPAT 3100H	Intro to Disease	3
VPAT 3200	Histology and Histopathology	3
VPAT 4000/6000	On the Origins of Disease	3
VPAT 4100	Common Diseases of Production Animals	3
VPHY 3700	Figuring the Human Body Through Drawing	4
VPHY 3990	Herd Health Study Away	4
VPHY 3995&L	Course-based Research	4
VPHY 4050	PLAs in Physiology	3
VPHY 4150/6150	Reproductive Physiology	3
VPHY 4200/6200	Physiologic Basis of Diseases	3
VPHY 4250/6250	Integrative Pathophysiology	3
VPHY 4300/6300	Endocrine Physiology	3
POPH(VPHY) 4330W/6330W	Scientific Writing	3
VPHY 4350/6350	Clinical Reasoning in Physiological & Pharmacological Contexts	3
VPHY 4400/6400	Principles of Neurophysiology	3
VPHY 4401/6401	Advanced Neurophysiology and Neurological Disorders	3
VPHY 4500/6500	Integrative Cardiovascular and Respiratory Physiology	3
VPHY 4600/6600	Physiological Toxicology	3
VPHY 4700/6700	Gastrointestinal Physiology	3
VPHY 4800/6800	Comparative Physiology	3
VPHY(IDIS) 4850/6850	Immunophysiology	3
VPHY 4950	Special Topics in Biomedical Physiology	1-4
VPHY/KINS 5690&L/5690&L	Skeletal Muscle and Mitochondria Physiology	4
WILD(ECOL) 4040/6040-4040L/6040L	Herpetology	4
WILD(ECOL) 4060/6060-4060L/6060L	Ornithology	4
WILD 4400/6400	Wildlife Physiology and Nutrition	3