

# Biomedical Physiology

## FIRST YEAR

### FALL SEMESTER

ENGL 1101 - English Composition I  
CHEM 1211-1211L - Freshman Chemistry I  
MATH 2250 or MATH 2400 - Calculus  
Social Science or World Language and Culture Course  
First-Year Odyssey Seminar

## SECOND YEAR

### FALL SEMESTER

BIOL 1107-1107L - Principles of Biology I  
CHEM 2211-2211L - Organic Chemistry I  
Social Science or World Language and Culture Course  
Humanities and the Arts Course

## THIRD YEAR

### FALL SEMESTER

VPHY 3107-3107D (or VPHY 3100 & 3101) - Physiology I  
VPHY 3107L - Physiology Lab  
PHYS 1111-1111L (or PHYS 1211-1211L) - Physics I  
Social Science or World Language and Culture Course  
Major Elective (see below)

## FOURTH YEAR

### FALL SEMESTER

4000-level VPHY course (e.g. 4200, 4300, or 4600)  
Major Elective (see below)  
Major Elective (see below)  
General Elective  
General Elective

#### Major Electives:

ADSC 3300 - Animal Nutrition & Metabolism  
ADSC 3400 - Physiology of Reproduction in Domestic Animals  
ADSC 3420 - Physiology of Lactation in Farm Animals  
ADSC (POUL) 4380 - Food Animal Growth and Development  
ADSC 4390-4390L - Equine Nutrition  
ADSC 4410-4410L - Applied Reproductive Management in Cattle and Swine  
ADSC 4430-4430L - Equine Exercise Physiology  
ADSC 4520 - Animal Cognition and Behavior  
ANNU (ADSC) 4360 - Ruminant Nutrition  
ANNU (ADSC) 4370 - Monogastric Nutrition  
BCMB 3433 - Biology for Medicine  
BCMB 4010 - Biochemistry & Molecular Biology I  
BCMB (CHEM) 4110 - Physical Biochemistry  
BCMB 4120 - Human Biochemistry & Disease  
BCMB 4130 - Human Biochemistry II  
BCMB (ENTO) (BTEC) 4200 - Biotechnology  
BIOL (WILD) 3700W - Animal Behavior  
BIOL 4200W - Science and Health Writing  
BIOL 4300W - Scientific Research Writing  
BTEC (BCMB) (PPIO) 4000L - Methods in Biotechnology  
CBIO 3000-3000L - Comparative Vertebrate Anatomy  
CBIO 3010-3010L - Gross Anatomy  
CBIO 3400 - Cell Biology  
CBIO 3600 - Developmental Biology  
CBIO 3710 - Principles of Physiology  
CBIO 3800 - Neurobiology  
CBIO (MIBO) (IDIS) 4100-4100D - Immunology  
CHEM 4120 - Chemistry of Drug Design and Drug Action

ECOL 3820 - Evolutionary Medicine  
ECOL 4050-4050L - Ichthyology  
ECOL (BIOL) 4150-4150L - Population Biology of Infectious Diseases  
ECOL 4240-4240L - Physiological Ecology  
ECOL 4775-4775L - Ecological Developmental Biology and Ecotoxicology  
EHSC 4490 - Environmental Toxicology  
ENTO 3645 or ENTO 3650 - Medical Entomology  
ENTO 4000-4000L - General Entomology  
ENTO 4450 - Insect Behavior  
FDNS 3100 - Macronutrients & Energy Balance  
FDNS 4050 - Optimal Nutrition for the Life Span  
FDNS 4100 - Micronutrient Nutrition  
FDNS (KINS) 4220 - Nutrition in Physical Activity, Exercise, Sport  
FDNS 4530 - Medical Nutrition Therapy II  
FDNS 4590 - Metabolism & Physiology of Energy Balance and Obesity  
FDNS 4800 - Nutrition and Pharmacotherapy for Disease Management  
FISH (ECOL) (MARS) (WILD) 4300 - Environmental Biology of Fishes  
FISH 4500-4500L - Fish Physiology and Laboratory  
GENE 3200-3200D or GENE 3200H - Genetics or Honors Genetics  
GENE 4200 - Advanced Genetics  
GENE (CBIO) 4310 - Genetic Approaches to Developmental Neuroscience  
GENE 4500 - Human Genetics

### SPRING SEMESTER

ENGL 1102 - English Composition II  
CHEM 1212-1212L - Freshman Chemistry II  
STAT 2000 or STAT 2020 or STAT 3110 or BIOS 2010  
Social Science or World Language and Culture Course  
PEDB - Physical Education Course

### SPRING SEMESTER

BIOL 1108-1108L - Principles of Biology II  
One course from: CBIO 3000 or CBIO 3010 or VBDI 4999E or CBIO 3400 or GENE 3200-3200D or MIBO 3500 (Pre-Professional students who require two semesters of organic chemistry take CHEM 2212-2212L)  
BCMB 3100 or BCMB 4020 - Biochemistry  
Social Science or World Language and Culture Course

### SPRING SEMESTER

VPHY 3108 - Physiology II  
VPHY 3110 - Careers in Biomedical Physiology  
4000-level VPHY course (e.g. 4200, 4300, or 4600)  
PHYS 1112-1112L (or 1212-1212L) - Physics II  
Social Science or World Language and Culture Course

### SPRING SEMESTER

One course from: CBIO 3000 or CBIO 3010 or VBDI 4999E or CBIO 3400 or GENE 3200-3200D or MIBO 3500  
General Elective  
General Elective  
General Elective

GRNT 3100E - Early Life Influences on Aging  
GRNT 3400E - Cognition and the Aging Brain  
GRNT 7600E - Pharmacology, Health, and Aging  
IDIS 3100 or IDIS 3100H - People, Parasites, and Plagues  
IDIS (POPH) 3110 - Food Animal Infectious Diseases  
IDIS (FDNS) 4200 - We Are What We Eat! How Your Gut Influences Your Overall Health  
KINS 3115E - Structural Kinesiology  
KINS 3450S - Wellness Practicum for People with Disabilities  
KINS 3500-3500L - Personal Training  
KINS 3600 - Applied Biomechanics  
KINS 3700 or KINS 3700E - Applied Exercise Physiology  
KINS 4600 - Measurement and Surveillance of Physical Activity  
KINS 4630 - Exercise Physiology  
KINS 4680 - Integrative Cardiovascular Physiology  
KINS 4690-4690L - Neuromuscular Physiology  
KINS 5140 - Current Problems in Kinesiology  
KINS 5690 - Skeletal Muscle & Mitochondria Physiology  
LAMS 3000E - Foundations of Clinical Medicine I  
LAMS 3010E - Foundations of Clinical Medicine II  
LAMS 3020E - Foundations of Clinical Medicine III  
MARS 3550 - Life in Fluids  
MIBO (POPH) 4220 or MIBO (POPH) 4220S - Pathogenic Bacteriology  
MIBO 4700 - Medical Mycology  
PMCY 3000 or PMCY 3000E - Human Physiology  
PMCY 3800 - Introduction to Pharmacology  
PMCY 4000 - The War on Cancer  
PMCY 4200 - Pharmacokinetics & Pharmacodynamics

PMCY 4300 - Medicinal Chemistry  
PMCY 4600 - Biological Therapeutics  
PMCY 5050 - Abused Drugs  
POUL 3000-3000L - Avian Surgical Techniques  
POUL 3123 - Avian Biology: Ecology, Physiology, and Behavior  
POUL 3750 - Integrated Animal Nutrition  
POUL (BIOL) 4060 - Reproductive Endocrinology  
POUL 4175 - Avian Anatomy & Physiology  
POUL 4200-4200L - Avian Anatomy & Physiology  
POUL 4300 - Nutritional Immunology in Health & Production  
PSYC 4120 - Sensation & Perception  
PSYC 4130 - Physiological & Comparative Psychology  
PSYC 4140 - Cognitive Neuroscience  
PSYC 4150 - Biological Foundations of Health Psychology  
PSYC 5850 - Psychopharmacology – Drugs and Behavior  
VBDI 4997E - Pre-Veterinary/Pre-Medical Histology  
VBDI 4998E - Principles Endocrine Physiology and Pharmacology  
VBDI 4999E - Comparative Veterinary Anatomy for Pre-Veterinary Students  
VPAT 3100H - Intro to Disease  
VPAT 4000 - On the Origins of Disease  
VPAT 4100 - Common Diseases of Production Animals  
VPHY 4200 or VPHY 4200E - Physiologic Basis of Disease  
VPHY 4300 - Endocrine Physiology  
VPHY 4600 - Physiological Toxicology  
WILD (ECOL) 4040-4040L - Herpetology  
WILD (ECOL) 4060-4060L - Ornithology  
WILD 4400 - Wildlife Physiology and Nutrition