



University Council

October 2, 2020

UNIVERSITY CURRICULUM COMMITTEE – 2020-2021

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Education – David Jackson

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Public Health – Brittani Harmon

Social Work – Harold Briggs

Veterinary Medicine – Susan Sanchez

Graduate School – Wendy Ruona

Ex-Officio – Provost S. Jack Hu

Undergraduate Student Representative – Jeremiah de Sesto

Graduate Student Representative – Gerena Walker

Dear Colleagues:

The attached proposal from the College of Veterinary Medicine for a new minor in Biomedical Physiology will be an agenda item for the October 9, 2020, Full University Curriculum Committee meeting.

Sincerely,

John Maerz, Chair

University Curriculum Committee

cc: Provost S. Jack Hu  
Dr. Rahul Shrivastav

## PROPOSAL FOR MINOR PROGRAM OF STUDY

**School/College:** College of Veterinary Medicine

**Department/Division:** Physiology and Pharmacology

**Proposed Program:** Minor in Biomedical Physiology

**Proposed Starting Date of Program:** Fall 2021

**Program Description:** The Minor in Biomedical Physiology allows students to further their knowledge and understanding of how living organisms function in order to pursue careers in a variety of biomedical science-related fields, including healthcare and the life-science industries.

**Program Requirements:** The Minor in Biomedical Physiology requires a minimum of 16 credit hours. Students minoring in Biomedical Physiology must earn a grade of “C” (2.0) or better in minor-required courses.

### **Required Courses (10-12 hours):**

#### **Choose one of the following introductory physiology courses (3-4 hours):**

CBIO 2210-2210L, Anatomy and Physiology II (4 hours)

CBIO 3710, Principles of Physiology (3 hours)

PMCY 3000, Human Physiology (4 hours)

POUL 4175, Avian Anatomy and Physiology (3 hours)

POUL 4200/6200-4200L/6200L, Avian Anatomy and Physiology (4 hours)

VPHY 3100 or VPHY 3100E, Elements of Physiology (3 hours)

VPHY 3107-3107D, Integrative Concepts in Physiology I (4 hours)

WILD 4400/6400, Wildlife Physiology and Nutrition (3 hours)

#### **Take the following courses (4-5 hours):**

VPHY 3101, Elements of Physiology Seminar (1 hour) unless VPHY 3107-3107D was taken

VPHY 3107L, Integrative Concepts in Physiology Lab (1 hour) unless CBIO 2210-2210L or CBIO 3710L was taken

VPHY 3108, Integrative Concepts in Physiology II (3 hours)

#### **Choose at least one course from the following (3 hours):**

VPHY 4200/6200, Physiologic Basis of Disease (3 hours)

VPHY 4300/6300, Endocrine Physiology (3 hours)

VPHY 4600/6600, Physiological Toxicology (3 hours)

### **Electives (6-8 hours):**

**Choose 2 courses from the physiology-related courses below for a total of 6 hours minimum.**

Note: A maximum of 4 research hours in the sciences, e.g., 4960R courses, can count toward the required Electives hours.

ADSC 3300, Animal Nutrition and Metabolism (3 hours)  
ADSC 3400, Physiology of Reproduction in Domestic Animals (3 hours)  
ADSC 3420, Physiology of Lactation in Farm Animals (3 hours)  
ADSC(POUL) 4380/6380, Food Animal Growth and Development (3 hours)  
ADSC 4390/6390-4390L/6390L, Equine Nutrition (3 hours)  
ADSC 4410/6410-4410L/6410L, Applied Reproductive Management in Cattle and Swine (3 hours)  
ADSC 4430/6430-4430L/6430L, Equine Exercise Physiology (3 hours)  
ANNU(ADSC) 4360/6360, Ruminant Nutrition (3 hours)  
ANNU(ADSC)(POUL) 4370/6370, Monogastric Nutrition (3 hours)  
BCMB 4010/6010, Biochemistry and Molecular Biology I (4 hours)  
BCMB(CHEM) 4110/6110, Physical Biochemistry (3 hours)  
BCMB 4120/6120, Human Biochemistry and Disease (4 hours)  
BCMB 4130, Human Biochemistry II (3 hours)  
CBIO 3000-3000L, Comparative Vertebrate Anatomy (4 hours)  
CBIO 3010-3010L, Gross Anatomy (4 hours)  
CBIO 3400, Cell Biology (4 hours)  
CBIO 3600, Developmental Biology (4 hours)  
CBIO 3800, Neurobiology (4 hours)  
CBIO(MIBO)(IDIS) 4100/6100-4100D/6100D, Immunology (4 hours)  
CHEM 4120, Chemistry of Drug Design and Drug Action (3 hours)  
ECOL 4240-4240L, Physiological Ecology (4 hours)  
EHSC 4490, Environmental Toxicology (3 hours)  
FDNS 3100, Macronutrients and Energy Balance (3 hours)  
FDNS 4050/6050, Optimal Nutrition for the Life Span (3 hours)  
FDNS 4100/6100, Micronutrient Nutrition (3 hours)  
FDNS 4500/6500, Medical Nutrition Therapy I (3 hours)  
FDNS 4510/6510, Nutrition Related to the Human Life Cycle (3 hours)  
FDNS 4530/6530, Medical Nutrition Therapy II (4 hours)  
FDNS 4570/6570, Inherited Metabolic Disorders (3 hours)  
FDNS 4590/6590, Metabolism and Physiology of Energy Balance and Obesity (3 hours)  
FDNS 4800/6800, Nutrition and Pharmacotherapy for Disease Management (3 hours)  
FISH 4300, Environmental Biology of Fishes (3 hours)  
FISH 4500/6500 and FISH 4500L/6500L, Fish Physiology and Laboratory (4 hours)  
GENE 3200-3200D or GENE 3200H, Genetics or Honors Genetics (4 hours)  
GENE 4200/6200, Advanced Genetics (3 hours)  
GENE(CBIO) 4310/6310, Genetic Approaches to Developmental Neuroscience (3 hours)  
GENE 4500/6500, Human Genetics (3 hours)  
GRNT 3100E, Early Life Influences on Aging (3 hours)  
GRNT 3400E or GRNT 7400E, Cognition and the Aging Brain (3 hours)  
GRNT 7600E, Pharmacology, Health, and Aging (3 hours)  
IDIS 3100 or IDIS 3100H, People, Parasites, and Plagues (3 hours)

IDIS(POPH) 3110, Food Animal Infectious Diseases (3 hours)  
IDIS(FDNS) 4200/6200, We Are What We Eat! How Your Gut Influences Your Overall Health (3 hours)  
KINS 3700 or KINS 3700E, Applied Exercise Physiology (3 hours)  
KINS 4630/6630, Exercise Physiology (3 hours)  
KINS 4680/6680, Integrative Cardiovascular Physiology (3 hours)  
KINS 4690/6690-4690L/6690L, Neuromuscular Physiology (4 hours)  
KINS 5690/7690, Skeletal Muscle & Mitochondria Physiology (3 hours)  
LAMS 3000E, Foundations of Clinical Medicine I (1 hour)  
LAMS 3010E, Foundations of Clinical Medicine II (1 hour)  
LAMS 3020E, Foundations of Clinical Medicine III (1 hour)  
MARS 3550, Life in Fluids (3 hours)  
MIBO(POPH) 4220/6220 or MIBO(POPH) 4220S/6220S, Pathogenic Bacteriology (3 hours)  
MIBO 4700/6700, Medical Mycology (3 hours)  
PHRM(PMCY) 4000, The War on Cancer (3 hours)  
PHRM(PMCY) 5050/7050, Abused Drugs (3 hours)  
PMCY 3800, Introduction to Pharmacology (3 hours)  
PMCY 4200/6200, Pharmacokinetics and Pharmacodynamics (3 hours)  
PMCY 4300/6300, Medicinal Chemistry (3 hours)  
PMCY 4600/6600, Biological Therapeutics (3 hours)  
POUL 3000-3000L, Avian Surgical Techniques (4 hours)  
POUL 3123, Avian Biology: Ecology, Physiology, and Behavior (3 hours)  
POUL 3750, Integrated Animal Nutrition (4 hours)  
POUL(BIOL) 4060/6060, Reproductive Endocrinology (3 hours)  
POUL 4175, Avian Anatomy and Physiology (3 hours)  
POUL 4200/6200-4200L/6200L, Avian Anatomy and Physiology (4 hours)  
POUL 4300/6300, Nutritional Immunology in Health and Production (3 hours)  
PSYC 4120, Sensation and Perception (3 hours)  
PSYC 4130, Physiological and Comparative Psychology (3 hours)  
PSYC 4140, Cognitive Neuroscience (3 hours)  
PSYC 4150, Biological Foundations of Health Psychology (3 hours)  
PSYC 5850, Psychopharmacology – Drugs and Behavior (3 hours)  
VBDI 4997E, Pre-Veterinary/Pre-Medical Histology (3 hours)  
VBDI 4998E/6998E, Principles Endocrine Physiology and Pharmacology (3 hours)  
VBDI 4999E, Comparative Veterinary Anatomy for Pre-Veterinary Students (3 hours)  
VPAT 3100H, Intro to Disease (Honors) (3 hours)  
VPAT 4000/6000, On the Origins of Disease (3 hours)  
VPAT 4100, Common Diseases of Production Animals (3 hours)  
VPHY 4200/6200, Physiologic Basis of Disease (3 hours)  
VPHY 4300/6300, Endocrine Physiology (3 hours)  
VPHY 4600/6600, Physiological Toxicology (3 hours)  
WILD(ECOL) 4040/6040-4040L/6040L, Herpetology (4 hours)  
WILD(ECOL) 4060/6060-4060L/6060L, Ornithology (4 hours)  
WILD 4400/6400, Wildlife Physiology and Nutrition (3 hours)

## Approvals on File

**Proposal:** Minor in Biomedical Physiology

**College:** College of Veterinary Medicine

**Department:** Physiology and Pharmacology

**Proposed Effective Term:** Fall 2021

Department:

- Physiology and Pharmacology Department Head, Dr. Gaylen Edwards, 8/24/20

School/College:

- College of Veterinary Medicine Dean, Dr. Lisa Nolan, 8/24/20