



UNIVERSITY OF
GEORGIA

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University Council

March 16, 2018

UNIVERSITY CURRICULUM COMMITTEE – 2017-2018

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Dear Colleagues:

The attached proposal from the College of Veterinary Medicine for a new Area of Emphasis in Pathology under the major in Comparative Biomedical Sciences (Ph.D.) will be an agenda item for the March 23, 2018, Full University Curriculum Committee meeting.

Sincerely,

Alison F. Alexander, Chair
University Curriculum Committee

cc: Provost Pamela S. Whitten
Dr. Rahul Shrivastav

PROPOSAL FOR AREA OF EMPHASIS

1. **School/College:** College of Veterinary Medicine
2. **Department/Division:** College of Veterinary Medicine
3. **Major:** Comparative Biomedical Sciences (Ph.D.)

4. Major Requirements:

Applicants must hold a bachelor's degree in a biological science. Students will be required to complete a program of study which constitutes a minimum of 30 semester hours consisting of at least 16 semester hours of 8000-9000 courses and four additional hours open only to graduate students (courses numbered 7000-level and above). A maximum of six hours of VETM 9000, Doctoral Research, and three hours of VETM 9300, Doctoral Dissertation, may be applied toward the minimum of 30 hours.

5. Area of Emphasis Title: Pathology

6. Proposed starting date: Fall 2018

7. Area of Emphasis Description:

The Area of Emphasis in Pathology was developed to train the next generation of veterinary and biomedical scientists and pathologists. The program emphasizes training in pathology and biomedical science to prepare students to make contributions to modern veterinary science and medicine. Graduates of these programs will understand the basic scientific principles related to veterinary pathology and biomedical research. The objective is to attract and train a cadre of highly qualified graduate students in the veterinary and biomedical sciences.

Required Courses

VPAT 8020, Cellular Pathology (4 hours)

GRSC 8550, Responsible Conduct of Research (1 hour)

VPAT 8140, Seminar in Veterinary Pathology (2 hours)

VETM 9000, Doctoral Research (6 hours)

VETM 9300, Doctoral Dissertation (3 hours)

Journal Club (1 hour) – choose one:

 IDIS 8050, Special Topics in Ecology and Evolution of Infectious Diseases (1 hours)

 IDIS 8250, Special Topics in Parasitology (1 hours)

 IDIS 8540, Special Topics in Bacterial Pathogenesis (1 hours)

 IDIS 8550, Special Topics in Immunology (1 hour)

 IDIS 8590, Special Topics in Disease Intervention (1 hour)

Statistics Course (3 hours) – choose one:

 BIOS 7010, Introductory Biostatistics I (3 hours)

 POPH 8310L, Population Health Statistics I (3 hours)

 Other graduate-level statistics course

At least one course from the following:

Biochemistry/Cell Biology

 BCMB 8010, Advanced Biochemistry and Molecular Biology I (4 hours)

 BCMB 8020, Advanced Biochemistry and Molecular Biology II (4 hours)

 CBIO 8010, Molecular Cell Biology (4 hours)

Infectious Diseases

CBIO(IDIS) 8100, Advanced Immunology (4 hours)
IDIS 8010, Advanced Studies in Infectious Diseases (4 hours)
IDIS 8300, Advanced Immunology: Innate Immunity (3 hours)
VPAT(IDIS) 8150, Virology and Viral Pathogenesis (3 hours)

Ecology

ECOL(PBIO)(WILD) 8310, Population Ecology (3 hours)
ECOL(PBIO)(WILD) 8325-8325L, Modeling Population Ecology (4 hours)

Elective Courses

Choose two courses from the following:

Pathology

BIOL(CBIO)(VPAT) 5040/7040, Electron Microscopy (3 hours)
VPAT 7010, Necropsy Practicum (1-12 hours)
VPAT 7020, Biopsy Practicum (1-12 hours)
VPAT 7030, Cytology Practicum (1-12 hours)
VPAT 7200-7200L, General Animal Pathology (3.7 hours)
VPAT 8000, Pathology Rounds (1 hour)
VPAT 8050, Problems in Veterinary Pathology (2-5 hours)
VPAT 8070-8070L, Veterinary Hematology (3 hours)
VPAT 8100, Microscopic Pathology (3 hours)
VPAT 8110, Veterinary Advanced Pathology (3 hours)
VPAT 8130, Diagnostic Oncology (3 hours)
VPAT 8140, Seminar in Veterinary Pathology (1-2 hours)
VPAT(IDIS) 8150, Virology and Viral Pathogens (3 hours)
VPAT 8200, Genetically Engineered Mice in Biomedical Research (2 hours)
VPAT(POPH) 8220, Avian Histopathology (3 hours)
VPAT 8320, Pathology of Laboratory Animals (3 hours)

Biochemistry and Molecular Biology

BCMB 8130, Advanced Topics in Glycobiology (3 hours)
BCMB 8150, Advanced Topics in Cell Signaling and Cell-Cell Communication (3 hours)

Cell Biology

CBIO 8100, Advanced Immunology (4 hours)
CBIO 8400, Advanced Cell Biology (3 hours)
CBIO 8500, Biology of Parasitism (4 hours)

Environmental Health Science

EHSC 8550, Developmental and Reproductive Toxicology (3 hours)
FISH(EHSC) 8630-8630L, Quantitative Ecological Toxicology (4 hours)

Genetics

GENE 8920, Nucleic Acids (3 hours)
GENE 8930, Advanced Molecular Genetics (3 hours)
GENE(BINF) 8940, Applied Genome Analysis (3 hours)

Pharmacy

PHRM(VPHY) 8940, Organ Systems Toxicology (4 hours)

Population Health

PHRM(POPH) 6650, Essentials of Animals in Biomedical Research (5 hours)
POPH 7010, Laboratory Animal Medicine and Pathology Practicum (1-4 hours)
POPH 7020, Laboratory Animal Medicine and Pathology Rounds (1-4 hours)
POPH 7050, Avian Histopathology Practicum I (1-3 hours)
POPH 7060, Avian Diagnostic Microbiology (3 hours)
POPH 7100L, Animals in Biomedical Research – Advanced Techniques (3-5 hours)
POPH 7110, The Diseases of Laboratory Animals I (3-4 hours)
POPH 7120, The Diseases of Laboratory Animals II (3-4 hours)
POPH 8050, Avian Virus Diseases (1-4 hours)
POPH 8150, Avian Medicine Seminar (1 hour)
POPH 8160, Scientific Manuscript Writing (3 hours)
POPH 8310L, Population Health Statistics I (3 hours)
POPH 8320L, Population Health Statistics II (4 hours)
POPH 8580, Current Topics in Wildlife Health (1 hour)
POPH(IDIS)(MIBO) 8200, Molecular Biology and Experimental Design (5 hours)

Infectious Diseases

CBIO(MIBO)(IDIS) 4100/6100, Immunology (3 hours)
CBIO(IDIS) 8100, Advanced Immunology (4 hours)
IDIS 8010, Advanced Studies in Infectious Diseases (4 hours)
IDIS 8050, Special Topics in Ecology and Evolution of Infectious Diseases (1 hour)
IDIS 8300, Advanced Immunology: Innate Immunity (3 hours)
IDIS 8591, Advanced Concepts of Virology (3 hours)
MIBO(PBHL)(IDIS)(BHSL) 8260, Global Perspectives on Tropical and Emerging Infectious Diseases (1 hour)
POPH(MIBO)(IDIS) 4450/6450-4450L/6450L, Microbial Genetics and Genomics (4 hours)
VPAT(IDIS) 8150, Virology and Viral Pathogens (3 hours)

Physiology and Pharmacology

PHRM(VPHY)(EHSC) 6910, Introductory Toxicology (3 hours)
PHRM(VPHY)(POUL) 8920, Organ Systems Toxicology II (3 hours)
PHRM(VPHY)(POUL)(EHSC) 8930, Chemical Toxicology (3 hours)
PHRM(VPHY) 8940, Organ Systems Toxicology (4 hours)
VPHY 6090, Comparative Mammalian Physiology (3 hours)
VPHY 6930, Research Methods (1-3 hours)
VPHY 5200/7200, Principles of Pharmacology (3.1 hours)
VPHY 8000, Cardiovascular Physiology (2 hours)
VPHY 8120, The Molecular Basis of Renal Physiology (2 hours)
VPHY 8200, Animal Molecular Biology: Concepts and Current Literature (2 hours)
VPHY 8400, Neurophysiology (3 hours)
VPHY 8450, Advanced Clinical Pharmacology (2 hours)

VPHY 8460, Molecular Pharmacology (3 hours)
VPHY 8900, Physiology-Pharmacology Seminar (1 hour)
VPHY 8960, Molecular Toxicology (3 hours)

Veterinary Biosciences and Diagnostic Imaging

VBDI 7140, Veterinary Animal Behavior (1.3 hours)
VBDI 8030, Advanced Veterinary Histology (3 hours)
VBDI 8050, Advanced Diagnostic Imaging (3 hours)
VBDI 8340, Seminar in Applied and Domestic Animal Behavior (1-5 hours)

Approvals on File

Proposal: Area of Emphasis in Pathology under the major in Comparative Biomedical Sciences (Ph.D.)

College: College of Veterinary Medicine

Proposed Effective Term: Fall 2018

School/College:

- College of Veterinary Medicine Associate Dean, Dr. Harry Dickerson, 2/13/2018

Graduate School:

- Graduate School Dean, Dr. Suzanne Barbour, 2/16/2018