

# PATHO-BIOLOGICAL SCIENCES (PATH-BIO)

## PATH-BIO 150 – CONTEMPORARY TOPICS AND CAREERS IN THE VETERINARY SCIENCES

1 credit.

Topics of importance to the animal health field.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

## PATH-BIO/PATH 210 – HIV: SEX, SOCIETY AND SCIENCE

3 credits.

HIV kills three million people per year, more than any other infectious disease. We will learn about the transmission, immunology, virology, vaccinology and societal impact of this virus. Six of the world's leading HIV scientists will give guest lectures.

**Requisites:** None

**Course Designation:** Breadth - Biological Sci. Counts toward the Natural Sci req

Level - Elementary

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

## PATH-BIO 299 – INDEPENDENT STUDY

1-3 credits.

**Requisites:** Consent of instructor

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2022

## PATH-BIO/ENTOM/M M & I/ZOOLOGY 350 – PARASITOLOGY

3 credits.

The biology of water-borne, food-borne, soil-borne and vector-borne parasites of animals including humans. Parasites are explored in the context of transmission, associated disease, diagnosis and treatment options, and environmental, cultural and socioeconomic drivers of disease epidemiology.

**Requisites:** ZOOLOGY/BIOLOGY 101 and 102, or ZOOLOGY/BIOLOGY/BOTANY 152 or ZOOLOGY 153, or BIOCORE 381

**Course Designation:** Breadth - Biological Sci. Counts toward the Natural Sci req

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

## PATH-BIO/MED HIST 370 – ADDRESSING CONTROVERSY: THE SCIENCE, ETHICS, AND PUBLIC DISCUSSION OF ANIMAL RESEARCH

3 credits.

Addresses the science, ethics, history, and communication strategies associated with the use of animals in research. Seeks to identify and employ common ground among those with different perspectives to enable students to make good decisions about this contentious topic.

**Requisites:** Satisfied Communications A requirement

**Course Designation:** Gen Ed - Communication Part B

Breadth - Either Humanities or Natural Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

## PATH-BIO 510 – VETERINARY IMMUNOLOGY

3 credits.

Current concepts in basic and clinical immunology with special emphasis on domesticated species and aspects of immunology.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

## PATH-BIO 512 – INTRODUCTION TO VETERINARY EPIDEMIOLOGY

2 credits.

Learn basic concepts and approaches to population problems in veterinary medicine. Methods appropriate to investigation of disease outbreaks, surveillance of animal disease and production and the design of epidemiological studies of the determinants of disease are presented.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

## PATH-BIO 513 – VETERINARY VIROLOGY

2 credits.

Introduction to basic concepts in virology and covers biology and pathogenesis of viral diseases of animals with an emphasis on viruses important to veterinary medicine.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**PATH-BIO 514 – VETERINARY PARASITOLOGY**

3 credits.

Basic veterinary parasitology with emphasis on biology, diagnosis, pathophysiology, treatment and management of parasitic infections of veterinary importance.

**Requisites:** Declared in Doctor of Veterinary Medicine with first year standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

**PATH-BIO 515 – REGULATORY VETERINARY MEDICINE AND PUBLIC HEALTH**

2 credits.

Role and regulatory obligations of the veterinary profession in preventing zoonoses, understanding the need for judicious use of antibiotics, and promoting the safety of food of animal origin.

**Requisites:** Declared in Doctor of Veterinary Medicine with third year standing

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

**PATH-BIO 517 – VETERINARY BACTERIOLOGY AND MYCOLOGY**

4 credits.

Emphasis on the pathogenesis of bacterial and fungal diseases of animals. Become familiar with the methods used to identify representative bacterial and fungal pathogens.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**PATH-BIO 525 – ACTIVE, INTEGRATED LEARNING I**

1 credit.

Active Learning experience highlighting problem solving and critical thinking that horizontally and vertically integrates material from other veterinary medicine courses by using exercises constructed in the context of clinical cases or scenarios.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**PATH-BIO 526 – ACTIVE, INTEGRATED LEARNING II**

1 credit.

Active Learning experience highlighting problem solving and critical thinking that horizontally and vertically integrates material from other veterinary medicine courses by using exercises constructed in the context of clinical cases or scenarios.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

**PATH-BIO/M M & I 528 – IMMUNOLOGY**

3 credits.

Development and functions of immune response in animals; a comprehensive study of experimental humoral and cellular immunity.

**Requisites:** (CHEM 104 or CHEM 109) and (ZOOLOGY/BIOLOGY 101, ZOOLOGY/BIOLOGY/BOTANY 151 or BIOCORE 383), or graduate/professional standing

**Course Designation:** Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**PATH-BIO 559 – VETERINARY GENERAL PATHOLOGY**

2 credits.

General mechanisms of disease at the cellular, tissue, organ, and organismal levels. Cell injury and cell death, neoplasia, inflammation, circulation, and genetics.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**PATH-BIO 560 – VETERINARY SYSTEMIC PATHOLOGY I**

2 credits.

Morphological manifestations of disease in animals. Diseases and disease processes will be discussed by organ system, stressing important diseases in domestic animals.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

**PATH-BIO 561 – VETERINARY SYSTEMIC PATHOLOGY II**

4 credits.

Morphological manifestations of disease in animals. Diseases and disease processes will be discussed by organ system, stressing important diseases in domestic animals.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

**PATH-BIO 562 – VETERINARY CLINICAL PATHOLOGY**

4 credits.

Concepts and techniques of clinical pathology with emphasis on those procedures that are important in the diagnosis of animal diseases.

**Requisites:** Declared in Doctor of Veterinary Medicine with second year standing

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

**PATH-BIO 660 – VETERINARY NECROPSY ROTATION**

2 credits.

Provides experience with necropsy procedures in all animal species and in developing interpretive skills by participating in the School of Veterinary Medicine/Veterinary Medical Teaching Hospital diagnostic anatomic pathology service under the guidance of the faculty.

**Requisites:** Declared in Doctor of Veterinary Medicine with fourth year standing

**Repeatable for Credit:** No

**Last Taught:** Summer 2023

**PATH-BIO 675 – SPECIAL TOPICS**

1-5 credits.

Topics vary.

**Requisites:** Declared in Doctor of Veterinary Medicine

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Summer 2023

**PATH-BIO 681 – SENIOR HONORS THESIS I**

2-4 credits.

Individual research and study in pathobiological sciences for completing an honors thesis as arranged with a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Honors - Honors Only Courses (H)

**Repeatable for Credit:** No

**Last Taught:** Spring 2022

**PATH-BIO 682 – SENIOR HONORS THESIS II**

2-4 credits.

Individual research and study in pathobiological sciences for completing an honors thesis as arranged with a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Honors - Honors Only Courses (H)

**Repeatable for Credit:** No

**PATH-BIO 699 – DIRECTED STUDY**

1-5 credits.

Projects in the laboratory and/or through library work in specific subject area under the direct guidance of faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Summer 2023

**PATH-BIO/M M & I 720 – ADVANCED IMMUNOLOGY: CRITICAL THINKING**

3 credits.

Advanced focus on current questions in immunological research. Explores immunology topics including genetic, cellular, and molecular features of immune system fundamental to regulation of immune responses.

**Requisites:** PATH-BIO/M M & I 528 and graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2016

**PATH-BIO/M M & I 750 – HOST-PARASITE RELATIONSHIPS IN VERTEBRATE VIRAL DISEASE**

3 credits.

Detailed study of the pathogenesis of vertebrate viral disease, stressing viral invasion, dissemination, mechanisms of disease production and resistance, and transmission.

**Requisites:** (PL PATH/ONCOLOGY 640 or PATH-BIO 513), PATH-BIO/M M & I 528, and graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2023

**PATH-BIO 775 – EXTERNSHIP**

1-24 credits.

Offers opportunities for faculty coordinated experience in the veterinary medical profession outside School of Veterinary Medicine.

**Requisites:** Declared in Doctor of Veterinary Medicine with fourth year standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2023

**PATH-BIO 799 – PRACTICUM IN VETERINARY SCIENCE TEACHING**

1-3 credits.

Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2018

**PATH-BIO 920 – THESIS RESEARCH SEMINAR**

1 credit.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2016

**PATH-BIO 930 – ADVANCED SEMINAR**

1 credit.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2023

**PATH-BIO 990 – RESEARCH**

1-12 credits.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Summer 2023