PATHO-BIOLOGICAL SCIENCES (PATH-BIO)

PATH-BIO 150 — CONTEMPORARY TOPICS AND CAREERS IN THE VETERINARY SCIENCES
1 credit.

Designed to expose students to topics of importance to the animal health field as well as introduce them to the academic and professional options they will face as undergraduates. Enroll Info: None
Requisites: None
Repeatable for Credit: No
Last Taught: Fall 2020

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. Enroll Info: None
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: Spring 2021

PATH-BIO 299 — INDEPENDENT STUDY
1-3 credits.

Enroll Info: Freshmen or Sophomore or Junior standing written consent of instructor
Requisites: Consent of instructor
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021

PATH-BIO/ENTOM/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. Enroll Info: None
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 2021

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. Enroll Info: None
Requisites: Satisfied Communications A requirement
Course Designation: Gen Ed - Communication Part B
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2021

PATH-BIO/HORT 500 — MOLECULAR BIOLOGY TECHNIQUES
3 credits.

Familiarize students with recombinant DNA technology through lectures as well as hands on exposure to methodologies used in molecular biology laboratories. Enroll Info: None
Requisites: (BIOCHEM 501, GENETICS 466, or MICROBIO 303) or graduate/professional standing
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2018

PATH-BIO 510 — VETERINARY IMMUNOLOGY
3 credits.

Current concepts in basic and clinical immunology with special emphasis on domesticated species and aspects of immunology important to students of veterinary medicine. Enroll Info: Vet Med st, basic crse in microbiology, or cons inst
Requisites: Declared in Veterinary Medicine program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2020

PATH-BIO 512 — INTRODUCTION TO VETERINARY EPIDEMIOLOGY
2 credits.

This course introduces 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. Enroll Info: Vet Med st or cons inst
Requisites: Declared in Veterinary Medicine program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2020
### PATH-BIO 513 — VETERINARY VIROLOGY
2 credits.

Basic and clinical concepts of the viruses and diseases they cause in domesticated species. Enroll Info: Vet Med st, basic crse in microbiology, or cons inst

**Requisites:** Declared in Veterinary Medicine program  
**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement  
**Repeatable for Credit:** No  
**Last Taught:** Fall 2020

### 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. Enroll Info: Vet Med st or cons inst

**Requisites:** Declared in Veterinary Medicine program  
**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement  
**Repeatable for Credit:** No  
**Last Taught:** Spring 2021

### PATH-BIO 515 — REGULATORY VETERINARY MEDICINE AND PUBLIC HEALTH
2 credits.

Introduction to the preventive aspects of veterinary medicine as they relate to zoonoses, environmental hygiene and safety of foods of animal origins. Enroll Info: Vet Med st or cons inst

**Requisites:** Declared in Veterinary Medicine program  
**Repeatable for Credit:** No  
**Last Taught:** Spring 2021

### PATH-BIO 517 — VETERINARY BACTERIOLOGY AND MYCOLOGY
4 credits.

Emphasis of the course is on the pathogenesis of bacterial and fungal diseases of animals. The laboratories will familiarize students with the methods used to identify representative bacterial and fungal pathogens. Enroll Info: Enrollment in the vet med pro curric or cons inst

**Requisites:** Declared in Veterinary Medicine program  
**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement  
**Repeatable for Credit:** No  
**Last Taught:** Fall 2020

### 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 scenario. Enroll Info: Yr 1 Vet Med crs

**Requisites:** None  
**Repeatable for Credit:** No  
**Last Taught:** Fall 2020

### 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 scenario. Enroll Info: Yr 1 Vet Med crs

**Requisites:** None  
**Repeatable for Credit:** No  
**Last Taught:** Spring 2021

### PATH-BIO/M M 528 — IMMUNOLOGY
3 credits.

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

**Enroll Info:** None  
**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 2020

### 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. Enroll Info: None

**Requisites:** Declared in Veterinary Medicine program  
**Repeatable for Credit:** No  
**Last Taught:** Fall 2020

### 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. Students should take both Veterinary Systemic Pathology I and II. Enroll Info: Vet Med st PATH-BIO 559, or cons inst

**Requisites:** Declared in Veterinary Medicine program  
**Repeatable for Credit:** No  
**Last Taught:** Fall 2020

### 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. Students should take both Veterinary Systemic Pathology I and II. Enroll Info: Vet Med st, PATH-BIO 560, or cons inst

**Requisites:** Declared in Veterinary Medicine program  
**Repeatable for Credit:** No  
**Last Taught:** Spring 2021
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. Enroll Info: None
Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: No
Last Taught: Spring 2021

PATH-BIO 660 — VETERINARY NECROPSY ROTATION
1 credit.

The course is designed to provide 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 for half days during the two week rotation. Enroll Info: None
Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: No
Last Taught: Spring 2021

PATH-BIO 675 — SPECIAL TOPICS
1-5 credits.

Topics vary. Enroll Info: Cons inst
Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021

PATH-BIO 681 — SENIOR HONORS THESIS
2-4 credits.

Enroll Info: Honors program candidacy
Requisites: Consent of instructor
Course Designation: Honors - Honors Only Courses (H)
Repeatable for Credit: No
Last Taught: Fall 2017

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. Enroll Info: None
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: Spring 2021

PATH-BIO/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. Enroll Info: None
Requisites: M M & I/PATH-BIO/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 & 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. Enroll Info: None
Requisites: (PL PATH/ONCOLOGY 640 or PATH-BIO 513), M M & I/PATH-BIO/M & I 528, and graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No

PATH-BIO 775 — EXTERNSHIP
1-24 credits.

This course is an elective for fourth year veterinary medical students which offers faculty coordinated experience in the veterinary medical profession outside the School. Enroll Info: Vet Med st or cons inst
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 2021

PATH-BIO/M & I 790 — IMMUNOLOGY OF INFECTIOUS DISEASE
3 credits.

Immunobiology and immunogenetics of resistance to infectious disease agents of man and animals; immunoregulatory mechanisms associated with evasion of host immunity. Enroll Info: M & I/PATH-BIO 720 and 740 required prior to enrollment.
Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2015

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. Enroll Info: None
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.

Enroll Info: None
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.

Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021

PATH-BIO 990 — RESEARCH
1-12 credits.

Enroll Info: None
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 2021