Dynamics and pathogenic mechanisms of microorganisms, immune.

Newer concepts of host-microorganism relations; emphasis on the.

PATH 515   Mechanisms Microbial Infection   credit: 3 or 4 Hours.
Course covers principles of theoretical and applied epidemiology, with examples from veterinary and human medicine. The aim of the course is to integrate epidemiologic concepts and quantitative methodology in order to evaluate disease risk and treatment options at the individual and population levels. Topics include causal inference, epidemiologic study design, evaluation of bias, outbreak investigation, and special areas within epidemiology. 4 graduate hours. No professional credit. Prerequisite: Graduate student standing or consent of instructor.

PATH 517   Principle/Method Epidemiology   credit: 4 Hours.

Prerequisite: Epidemiology class (VM 608 or equivalent), or consent of instructor.

Information listed in this catalog is current as of 07/2024
PATH 527 Parasitology/Epidemiology Sem  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/527/)
Discussion of selected historic and current literature related to parasitology. May be repeated to a maximum of 2 hours. Prerequisite: Credit or concurrent registration in VM 607.

PATH 530 The Microbiome: Ecology & Analysis  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/PATH/530/)
Students will explore the mechanisms through which the microbiome contributes to health and will become familiar with the molecular, computational, and statistical tools and methodologies used to interrogate microbiome function and composition. In the accompanying lab, students will use command line tools and R locally and in a high-performance compute environment to quality control, annotate, analyze, and visualize shotgun metagenomic and amplicon (16S rRNA gene) datasets. 3 graduate hours. No professional credit. Prerequisite: A working knowledge of microbiology, genetics, and statistics is recommended. Consent of the instructor is required.

PATH 534 Pathogenomics  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/PATH/534/)
Fundamental concepts and principles of genomics and transcriptomics. 3 graduate hours. No professional credit.

PATH 542 Ocular Pathology  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/542/)
This course is aimed at veterinary pathology and ophthalmology residents. The course would also be open to interested UIUC medical students. The course involves examination and discussion of microscopic lesions of clinical veterinary ophthalmology cases through examination of clinical images, glass slides, and digital microscopic images. Students meet weekly concurrently with pathologists and ophthalmologists and either present current diagnostic cases, mystery cases, or lead a topic discussion related to ocular pathology. Same as VCM 542. 1 graduate hour. No professional credit. May be repeated in separate terms up to 9 hours, if topics vary. Prerequisite: Veterinary anatomic pathology residents or veterinary ophthalmology residents and interested UIUC medical students.

PATH 545 Vet Diagnostic Path 1  credit: 0 to 6 Hours. (https://courses.illinois.edu/schedule/terms/PATH/545/)
Instruction in diagnostic pathology for pathology majors. Instruction based on necropsy cases with emphasis on necropsy protocol; sample collection and submission; recognition, description, and interpretation of gross and microscopic lesions; and case diagnosis based on all test results. Approved for letter and S/U grading. May be repeated to a maximum of 10 hours. Prerequisite: Graduate veterinarian, graduate student with major in pathology, and consent of instructors.

PATH 546 Vet Diagnostic Path 2  credit: 0 to 6 Hours. (https://courses.illinois.edu/schedule/terms/PATH/546/)
Instruction in diagnostic pathology for pathology majors. Instruction based on necropsy cases with emphasis on recognition, description, and interpretation of gross and microscopic lesions; evaluation of results of other diagnostic assays; disease pathogenesis; and final case diagnosis and comments. Approved for letter and S/U grading. May be repeated to a maximum of 10 hours. Prerequisite: PATH 545 and consent of instructors.

PATH 547 Pathology Seminar  credit: 0 to 1 Hours. (https://courses.illinois.edu/schedule/terms/PATH/547/)
Review and discussion of selected pathologic and clinico-pathologic material. Students are required to participate in weekly discussions and present at least one formal seminar per semester, on a topic approved by Pathology faculty. Approved for letter and S/U grading. May be repeated to a maximum of 6 hours. Prerequisite: Credit or concurrent registration in PATH 545, and consent of instructor.

PATH 551 Interpretive Cytopathology  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/551/)
Discusses selected cytotologic material. Emphasizes recognition, interpretation, oral presentation, and written description of cytology case materials. May be repeated to a maximum of 8 hours.

PATH 552 Diagnostic Cytology  credit: 2 or 4 Hours. (https://courses.illinois.edu/schedule/terms/PATH/552/)
Instruction in diagnostic cytology for clinical pathology majors. The course is for clinical pathology graduate students to advance their training in cytology. This is an intensive course with one-on-one training with the instructor. Clinical cytology cases and blood smears are evaluated microscopically and then a thorough written description and interpretation of each case is performed and reviewed. May be repeated in separate terms to a maximum of 30 graduate hours. Note that a maximum of 8 credit hours will count towards a graduate degree. Prerequisite: DVM degree or equivalent, clinical pathology graduate student or consent of instructor.

PATH 555 Comparative Oncology  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/PATH/555/)
Comparative study of the nature of mammalian and avian neoplasms based on general and special methods of tumor identification and classification; lectures, demonstrations, and laboratory. Prerequisite: VM 605 and VM 608, or equivalent.

PATH 556 Exotic/Wild Animal Diag Path 1  credit: 1 or 2 Hours. (https://courses.illinois.edu/schedule/terms/PATH/556/)
Instruction in the performance of necropsy examinations on exotic and wild animals; emphasizes recognition, interpretation, oral presentations and written descriptions of gross and histologic lesions; emphasizes histologic features of lesions. For pathology majors only. May be repeated to a maximum of 10 hours. Prerequisite: VM 605 and VM 608; consent of instructor.

PATH 557 Exotic/Wild Animal Diag Path 2  credit: 0 to 2 Hours. (https://courses.illinois.edu/schedule/terms/PATH/557/)
Instruction in the use of supplemental diagnostic data in the areas of bacteriology, clinical pathology, immunology, parasitology, toxicology, and virology in arriving at differential and definitive diagnoses of wild and exotic animals. Pathogenesis of gross and histologic lesions and mechanisms of lesion development are emphasized. For pathology majors only. May be repeated to a maximum of 10 hours. Prerequisite: PATH 556 or equivalent or consent of instructor.

PATH 558 Exotic/Wild Animal Path Sem  credit: 0 to 1 Hours. (https://courses.illinois.edu/schedule/terms/PATH/558/)
Discussion of selected pathologic and clinico-pathologic material pertaining to exotic and wild animals and presentation of a formal seminar. Approved for letter and S/U grading. May be repeated to a maximum of 6 hours. Prerequisite: Concurrent enrollment in PATH 556 or PATH 557 or consent of instructor.
PATH 559  Surgical Pathology  credit: 0 to 2 Hours. (https://courses.illinois.edu/schedule/terms/PATH/559/)
Discussion and interpretation of disease processes of domestic animals; emphasizes interpretation of pathologic changes in tissue specimens obtained during surgical procedures; correlates structure, function, and prognosis. Approved for letter and S/U grading. May be repeated to a maximum of 10 hours. Prerequisite: PATH 545 and PATH 546, or equivalent; consent of instructor.
PATH 560  Spatial Epidemiology  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/PATH/560/)
Patterns of health and disease in place and time; application of geographic information systems; analysis of time-space relations; clusters and diffusion of disease; geographic epidemiology of selected infectious and noninfectious diseases. Same as GGIS 560. 4 graduate hours. No professional credit. Prerequisite: CHLH 474 or equivalent, or VM 608 or PATH 517 or equivalent; PATH 524 or SOC 485 or equivalent.
PATH 575  Vet Info Tech/Computer App  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/575/)
Veterinary applications of word processing, spreadsheet, database, statistical, and health management software packages and various methods of information access and retrieval will be complemented by lecture/discussion and computer laboratory sessions. Prerequisite: Two years of work experience as a veterinarian (post-graduate DVM) or consent of instructor; priority will be given to students enrolled in the Executive Veterinary Program.
PATH 576  Communication Vet Consultation  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/576/)
Utilization of communication as a tool in veterinary consultation and management. Skills will be developed in oral and written communication through assigned presentations, technical reports, newsletters, and business letters. Veterinary applications will be emphasized. Prerequisite: Two years of work experience as a veterinarian (post-graduate DVM) or consent of instructor; priority will be given to students enrolled in the Executive Veterinary Program.
PATH 577  Vet Leadership Organ Behavior  credit: 2 Hours. (https://courses.illinois.edu/schedule/terms/PATH/577/)
Leadership principles and organizational theory with practical application to veterinary management and consultation. Includes individual, interpersonal, and organizational influences focusing on current issues in the veterinary profession. Prerequisite: Two years of work experience as a veterinarian (post-graduate DVM) or consent of instructor; priority will be given to students enrolled in the Executive Veterinary Program.
PATH 578  Veterinary Business Management  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/PATH/578/)
Instruction in and application of the principles of veterinary business management including economics, decision making, financial management, marketing, and legal issues. Emphasis on specific practice type (small animal, food animal, equine) depending on interest of students. Prerequisite: Two years of work experience as a veterinarian (post-graduate DVM) or consent of instructor; priority will be given to students enrolled in the Executive Veterinary Program.
PATH 579  Adv Concept Swine Health Med 1  credit: 3 Hours. (https://courses.illinois.edu/schedule/terms/PATH/579/)
Instruction on the biostatistics involved in the effective analysis of swine production records, diagnostic tests, and clinical trials. Application of epidemiology principles in a swine production setting. Practical diagnostic, treatment, and preventive procedures for disease conditions related to swine production. Prerequisite: Two years of work experience as a veterinarian (post-graduate DVM) or consent of instructor; priority will be given to students enrolled in the Executive Veterinary Program.
PATH 590  Seminar  credit: 0 or 1 Hours. (https://courses.illinois.edu/schedule/terms/PATH/590/)
Required of all graduate students whose major is veterinary pathobiology. Approved for letter and S/U grading.
PATH 592  Special Problems  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/PATH/592/)
Basic and applied study including orientation and research on pertinent initial and continuing problems in the student’s area of interest. May be repeated to a maximum of 8 hours if topics vary. Prerequisite: Consent of instructor.
PATH 596  Interdisciplinary Tox Sem  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/596/)
Same as ENVS 596 and CB 596. See CB 596.
PATH 598  Non-Thesis Research  credit: 1 to 8 Hours. (https://courses.illinois.edu/schedule/terms/PATH/598/)
Independent research to fulfill requirement for non-thesis alternative in Master of Science program only. Approved for S/U grading only. May be repeated to a maximum of 8 hours if topics vary. Credit is not given for both PATH 598 and PATH 599. Prerequisite: Must be Graduate Veterinarian.
PATH 599  Thesis Research  credit: 0 to 16 Hours. (https://courses.illinois.edu/schedule/terms/PATH/599/)
Approved for S/U grading only. May be repeated.
PATH 629  Emergency Preparedness and Response to Foreign Animal Diseases  credit: 2 Hours. (https://courses.illinois.edu/schedule/terms/PATH/629/)
This online elective course for graduate and DVM students focuses on disease emergency response that is complementary to other veterinary curriculum coursework. This course will study example foreign animal diseases (FADs) so that students understand disease transmission and epidemiology, how biosecurity can help prevent introduction and spread of diseases, and will use the Incident Command structure in emergency response scenarios. Students will contribute evaluative thinking for improvements in FADPreP (FAD Preparedness, Response, and Prevention). 2 graduate hours. 2 professional hours. Prerequisite: Restricted to students enrolled in the first three years of the DVM Professional curriculum or graduate students in epidemiology, public health, or biology-related discipline, or by permission of instructor.
PATH 644  Bioscientific Writing  credit: 1 Hour. (https://courses.illinois.edu/schedule/terms/PATH/644/)
Instruction in communicating research results to a scientific audience. Assignments focus on writing an abstract, constructing a poster presentation, and completing a short manuscript. Intended for veterinary students who have some previous experience in a research setting and access to experimental data that can be used as a basis of writing exercises. Prerequisite: Enrollment in the veterinary curriculum and consent of instructor.
PATH 692  Special Problems  credit: 1 to 3 Hours. (https://courses.illinois.edu/schedule/terms/PATH/692/)
Individual research on a special problem chosen in consultation with the instructor and department head. Approved for both letter and S/U grading. May be repeated to a maximum of 6 hours if topics vary. 1 to 3 graduate hours. 1 to 3 professional hours. Prerequisite: Registration in veterinary curriculum with grade-point average of 3.0 or above, or consent of instructor.