# VETERINARY MEDICINE (VETM)

VETM\*3070 Veterinary Anatomy DVM Phase 1 (LEC: 2, LAB: 6) [2.00]

An introduction to comparative, topographical anatomy, primarily of 4 domestic mammals: cat, dog, horse and cow. Full dissections of these species are related to the living animal and to imaging, to form the basis for future studies in clinical morphology. Students are first introduced to the major anatomical systems and then to the regions in detail: thorax, abdomen, pelvis and perineum, limbs, and head and neck. Active learning, problem solving, communication skills and the integration of material across concurrent courses are fostered.

Co-requisite(s): All Phase 1 courses

Department(s): Department of Biomedical Sciences

Location(s): Guelph

# VETM\*3080 Veterinary Physiology and Biochemistry DVM Phase 1 (LEC: 3, LAB: 3) [2.00]

The course describes the physiological processes carried out by the major tissues and organ systems, and the regulatory mechanisms that affect tissue and organ function. Topics dealt with in the course include the following: the cellular and chemical constituents of blood, blood coagulation and haemostasis, the function of the immune system, resistance to infectious agents and the principles of immunoprophylaxis, cardiac function, cardiovascular haemodynamics, blood pressure, peripheral and regional circulation of blood, the lymph circulation, the structure and function of the mammalian nervous system and organs associated with special senses, the functions of the digestive tract, lungs and kidney thermoregulation and water, electrolyte and acid-base balance. The homestatic features and species variation of the tissue organ systems will be emphasized.

Co-requisite(s): All Phase 1 courses

Department(s): Department of Biomedical Sciences, Department of

Pathobiology Location(s): Guelph

### VETM\*3120 Veterinary Histology and General Pathology DVM Phase 1 (LEC: 3, LAB: 3) [0.75]

A lecture and laboratory course emphasizing the gross and microscopic organization of the tissues and organs of domestic animals in various physiological states. A comparative approach is used to highlight normal and abnormal gross anatomy and histology to understand how disease affects gross and microanatomical organ structure and function. The lecture and laboratory components are well integrated to provide students with an excellent hands-on experience in histology and pathology.

Co-requisite(s): All Phase 1 courses

Department(s): Department of Biomedical Sciences, Department of

Pathobiology Location(s): Guelph

#### VETM\*3210 Art of Veterinary Medicine I DVM Phase 1 (LEC: 3) [0.50]

In a series of integrated modules, this course will assist students in increasing their self-awareness and comprehension of a range of legal, professional and ethical values and behaviours that are essential and normal components of veterinary medicine. Emphasis will be placed on understanding, evaluating and improving interpersonal relations and oral and written communication skills. The ethical principles that underlie veterinary medicine will be explored in depth. The course will also assist students in understanding their position in the developing history of veterinary medicine and inform them of emerging trends. Issues related to professional development, how other species interact with humans, and the client/patient/veterinarian triad will be introduced. The application of these learned skills in the resolution of problems will be introduced.

Co-requisite(s): All Phase 1 courses

Department(s): Dean's Office, Ontario Veterinary College, Department of

Population Medicine, Veterinary Teaching Hospital

Location(s): Guelph

#### VETM\*3220 Art of Veterinary Medicine II DVM Phase 2 (LEC: 2) [0.50]

Using modules, this course will build on, and enhance, the knowledge base and skill set acquired in Phase I in the area of communications, human-animal interactions, professional development, and the client/patient/veterinarian triad. The focus in these areas will now move towards recognising difficulties that may arise and how to differentiate abnormal situations from normal ones. Problem-solving, conflict resolution and stress management through application of innate and acquired knowledge and skills will be developed. In addition, the course will introduce concepts of business and entrepreneurial skills which are required for successful veterinary practice.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Dean's Office, Ontario Veterinary College, Department of

Population Medicine, Veterinary Teaching Hospital

Location(s): Guelph

# VETM\*3390 Developmental Biology DVM Phase 1 (LEC: 1, LAB: 1) [0.50]

This course introduces key concepts of veterinary embryology, genomics, and regenerative medicine. A comparative and application-based approach is taken when presenting the course material. The focus is to present issues relevant to veterinary medicine and to apply principles and theories to veterinary practice.

Co-requisite(s): All Phase 1 courses

Department(s): Department of Biomedical Sciences

Location(s): Guelph

# VETM\*3400 Health Management I DVM Phase 1 (LEC: 3, LAB: 1) [0.75]

The course is the first of two comprehensive and integrated courses that will span the first two phases of the DVM program. Both courses are intended to establish the foundation for, and contribute to the students' achievement of selected DVM Program elements of competency in the context of the principles of health management. The primary emphasis of this component is to establish the historical perspective and basic tools required for health promotion and disease prevention.

Co-requisite(s): All Phase 1 courses

Department(s): Department of Population Medicine

#### VETM\*3410 Health Management II DVM Phase 2 (LEC: 3) [0.75]

This course is a continuation of the Phase 1 course Health Management I. Previously presented concepts will be explored in greater depth and complexity. Additional emphasis will be placed on relevant epidemiological tools for monitoring, outbreak investigation, critical appraisal and the applications of principles from the previous course in the series to measure performance, including relevant production genetics, and animal behaviour in a species/industry context.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Department of Population Medicine

Location(s): Guelph

#### VETM\*3430 Clinical Medicine I DVM Phase 1 (LEC: 3, LAB: 3) [0.25]

The course will contribute to students' achievement of selected DVM program elements of competency in the areas of animal handling and the clinical examination of various species. Students will become familiar with the expected variation in common clinical parameters and how this variation is impacted by aging, changes in health status, and external environmental influences and other sources of stress. Students will be introduced to clinical problem solving using case material from the Health Sciences Centre". They will develop their verbal and written communication skills through case simulations and analyses. The course will be presented using lectures, laboratory classes and independent study. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html).

Co-requisite(s): All Phase 1 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

#### VETM\*3440 Clinical Medicine II DVM Phase 2 (LAB: 2) [0.50]

The course is a continuation of Clinical Medicine I. It will contribute to students' achievement of selected elements of graduating competency in the areas of clinical examination of specific organ systems of various species. Students will enhance and refine their clinical problem solving skills using case material from the Veterinary Teaching Hospital. They will continue to develop their verbal and written communication skills through case simulations and analyses. The course will be presented using lectures, laboratory classes and independent study.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

# VETM\*3450 Principles of Disease in Veterinary Medicine DVM Phase 2 (LEC: 3) [2.75]

This course addresses several major topics, including principles of disease induction and transmission, host response to threat and injury, pathogenetic mechanisms of infectious and toxic agents, and manipulation of disturbances in health. The interaction among host, environmental, and etiologic factors in the development of disease will be highlighted. Students will learn to recognize, describe, and evaluate disturbances of health and homeostasis at the level of the population, individual animal, organ system, tissue and cell using a variety of diagnostic modalities.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Department of Biomedical Sciences, Department of

Pathobiology
Location(s): Guelph

#### VETM\*3460 Theriogenology DVM Phase 2 (LEC: 3) [0.75]

A lecture and laboratory course covering the normal and abnormal reproductive systems of domestic animals. The course will include mammalian reproductive physiology and histology, diagnosis and treatment of reproductive disorders, including infertility, and management of breeding programs of the common domestic species. An introduction to the new reproductive technologies used in theriogenology will also be provided.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Department of Biomedical Sciences, Department of

Population Medicine Location(s): Guelph

# VETM\*3470 Anaesthesiology and Pharmacology DVM Phase 2 (LEC: 3) [0.75]

This course provides the general principles, pharmacologic basis, and practical applications of general and local anaesthesia in small and large animals. Other topics covered include fluid and acid-base imbalance and the prevention and treatment of surgical shock.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Department of Biomedical Sciences, Department of

Clinical Studies
Location(s): Guelph

#### VETM\*3510 Principles of Surgery DVM Phase 2 (LEC: 2) [0.25]

The principles of surgery in various animal species are given. The lecture topics include patient and surgeon preparation, tissue handling instrumentation, suturing and surgical principles and approaches to various organ systems and anatomical regions.

Prerequisite(s): All Phase 1 courses Co-requisite(s): All Phase 2 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

#### VETM\*4220 Art of Veterinary Medicine III DVM Phase 3 (LEC: 2) [0.50]

This modular course will require students to apply the knowledge and skills acquired in Phases 1 and 2 to problems that incorporate aspects of one or more of the following areas: communications and conflict resolution, ethics, professional behaviour, human- animal interactions, analysis and planning, and business issues. This course will focus on methods to resolve difficulties in the above areas that are interfering with intrapersonal and interpersonal relationships and with how to return abnormal situations to normal ones. Problem-solving, conflict resolution and stress management through application of innate and acquired knowledge and skills will be expected. The course will be taught primarily through case analysis.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

Department(s): Dean's Office, Ontario Veterinary College, Department of

Population Medicine, Veterinary Teaching Hospital

Location(s): Guelph

#### VETM\*4420 Clinical Pharmacology DVM Phase 3 (LEC: 3) [0.25]

This course stresses rational drug therapy through an understanding of drug factors, host factors and disease factors, with emphasis on clinically relevant properties of selected major drug classes and used for therapy (prevention and treatment) in small animals, food animals, and horses.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

**Restriction(s):** Registration in the D.V.M. Program **Department(s):** Department of Biomedical Sciences

# VETM\*4450 Equine Medicine and Surgery DVM Phase 3 (LEC: 3) [0.50]

The course will contribute to students' achievement of selected DVM Program elements of competency in the context of the horse. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to develop strategies to deal with common and uncommon diagnoses.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

# VETM\*4460 Food Animal Medicine and Surgery DVM Phase 3 (LEC: 3) [1.00]

The course will contribute to students' achievement of selected DVM Program elements of competency in the context of the common ruminant species and swine. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to develop strategies to deal with common and uncommon diagnoses.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

Department(s): Department of Clinical Studies, Department of Population

Medicine

Location(s): Guelph

## VETM\*4470 Medicine and Surgery of Dog and Cat DVM Phase 3 (LEC: 3) [1.00]

The course will contribute to students' achievement of selected DVM Program elements of competency in the context of the dog and cat. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to develop strategies to deal with common and uncommon diagnoses.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

#### VETM\*4480 Comparative Medicine DVM Phase 3 (LEC: 3) [0.75]

The course will contribute to students' achievement of selected elements of graduating competency in the context of pet birds, commercial poultry and non-traditional species (fish, amphibians, reptiles, rabbits, rodents, ferrets, non-domestic carnivores and non-domestic ungulates). The primary emphasis is directed towards enhancing the skills, knowledge and attitudes that will permit the entry-level veterinarian to develop strategies to deal with common and uncommon diagnoses.

Prerequisite(s): All Phase 2 courses
Co-requisite(s): All Phase 3 courses
Department(s): Department of Pathobiology

Location(s): Guelph

#### VETM\*4490 Systems Pathology DVM Phase 3 (LEC: 3) [1.00]

The course will contribute to students' achievement of selected elements of graduating competency in the context of pathobiology across the range of species. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to carry out the post-mortem examinations, select and perform relevant ancillary diagnostic tests and procedures, interpret findings, and initiate and interpret results of further investigations.

Prerequisite(s): All Phase 2 courses
Co-requisite(s): All Phase 3 courses
Department(s): Department of Pathobiology

Location(s): Guelph

#### VETM\*4530 Health Management III DVM Phase 3 (LEC: 3) [0.50]

The course will contribute to students' achievement of greater depth in selected elements of graduating competency in the context of health management in species of their choice. The primary emphasis is directed towards developing species-specific skills, knowledge and attitudes that will permit the entry-level veterinarian to assess and advise on animal production and performance and evaluate the necessity for, and implementation of, health management programs. The course is constructed of a series of species-based modules. Students will be required to take two of the modules.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

Department(s): Department of Population Medicine

Location(s): Guelph

#### VETM\*4540 Surgical Exercises DVM Phase 3 (LEC: 3) [1.75]

Veterinary students receive training in preoperative planning, anaesthesia and surgical techniques, operative room decision making and post-operative care in this laboratory course. Students begin by practicing technical skills on inanimate models. They progress to performing a series of supervised operations designed to parallel the most commonly performed surgeries in private practice. A once weekly rounds period allows discussion of issues arising from the previous anaesthesia and surgery, and planning for the upcoming laboratory. Though some didactic material is presented, the course is mainly experiential. The evaluation outcome of the course is outstanding, pass or fail.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

**Restriction(s):** Registration in the D.V.M. Program **Department(s):** Department of Clinical Studies

Location(s): Guelph

#### VETM\*4610 Small Animal Stream DVM Phase 4 (LEC: 3) [7.50]

This course is for students who have selected the Small Animal Stream in Phase 4 of the DVM Program. The goal of the small animal stream course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process where students progress through 30 weeks of core and elective rotations that provide applied learning experiences in the context of veterinary medicine.

Prerequisite(s): All Phase 3 courses Co-requisite(s): VETM\*4900

Restriction(s): Registration in the DVM program.

Department(s): Dean's Office, Ontario Veterinary College

Location(s): Guelph

# VETM\*4660 Rural Community Practice Stream DVM Phase 4 (LEC: 3) [7.50]

This course is for students who have selected the Rural Community Practice Stream in Phase 4 of the DVM Program. The goal of the rural community practice stream course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process where students progress through 30 weeks of core and elective rotations that provide applied learning experiences in the context of veterinary medicine.

Prerequisite(s): All Phase 3 courses Co-requisite(s): VETM\*4900

Restriction(s): Registration in the DVM program.

Department(s): Dean's Office, Ontario Veterinary College

#### VETM\*4710 Food Animal Stream DVM Phase 4 (LEC: 3) [7.50]

This course is for students who have selected the Food Animal Stream in Phase 4 of the DVM Program. The goal of the food animal stream course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process where students progress through 30 weeks of core and elective rotations that provide applied learning experiences in the context of veterinary medicine.

Prerequisite(s): All Phase 3 courses Co-requisite(s): VETM\*4900

Restriction(s): Registration in the DVM program.

Department(s): Dean's Office, Ontario Veterinary College

Location(s): Guelph

#### VETM\*4870 Clinical Medicine III DVM Phase 3 (LAB: 2) [0.25]

This course will contribute to students' achievement of selected DVM Program elements of competency in the context of the hospital environment. This is an integrated course in which students will enhance a variety of clinical skills, including physical examination, history taking, problem solving, and ancillary diagnostic tests and procedures. The emphasis is directed towards enhancing the skills, knowledge and attitudes that will permit the student to maximize the benefit to be derived from senior year courses.

Prerequisite(s): All Phase 2 courses Co-requisite(s): All Phase 3 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

#### VETM\*4900 Veterinary Externship DVM Phase 4 [2.50]

This is an eight-week experiential learning opportunity that junior students in the DVM Program must organize by the mid-way through Phase 3. The externship must be in approved private, primary care, veterinary practice. Senior students in the DVM Program, under the supervision of a designated host veterinarian, will experience being part of a team providing health care services to the public. This course will provide students with the opportunity to integrate and apply their knowledge and experience from previous courses, and further refine their problem-solving and communication skills, and enhance their ability to work as part of a team. The evaluation outcome of this course is outstanding, pass or fail.

Prerequisite(s): All Phase 3 courses

Department(s): Department of Clinical Studies

Location(s): Guelph

#### VETM\*4920 Equine Stream DVM Phase 4 (LEC: 3) [7.50]

This course is for students who have selected the Equine Stream in Phase 4 of the DVM Program. The goal of the equine stream course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process where students progress through 30 weeks of core and elective rotations that provide applied learning experiences in the context of veterinary medicine.

Prerequisite(s): All Phase 3 courses Co-requisite(s): VETM\*4900

Restriction(s): Registration in the DVM program.

Department(s): Dean's Office, Ontario Veterinary College

Location(s): Guelph

VETM\*4990 Clinical Semester Summer Only (LEC: 3) [0.00]