The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2018-2019 academic year, including the Summer Semester 2018, Fall Semester 2018 and the Winter Semester 2019.

For your convenience the Graduate Calendar is available in PDF format.

If you wish to link to the Graduate Calendar please refer to the Linking Guidelines.

The University is a full member of:

- Universities of Canada

Contact Information:

University of Guelph
Guelph, Ontario, Canada
N1G 2W1
519-824-4120

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1, 2018</td>
<td>Initial Publication</td>
</tr>
<tr>
<td>August 10, 2018</td>
<td>Revision 1</td>
</tr>
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Disclaimer
The Office of Graduate Studies has attempted to ensure the accuracy of this on-line Graduate Calendar. However, the publication of information in this document does not bind the university to the provision of courses, programs, schedules of studies, fees, or facilities as listed herein.

Limitations
The University of Guelph reserves the right to change without notice any information contained in this calendar, including any rule or regulation pertaining to the standards for admission to, the requirements for the continuation of study in, and the requirements for the granting of degrees or diplomas in any or all of its programs.
The university will not be liable for any interruption in, or cancellation of, any academic activities as set forth in this calendar and related information where such interruption is caused by fire, strike, lock-out, inability to procure materials or trades, restrictive laws or governmental regulations, actions taken by the faculty, staff or students of the university or by others, civil unrest or disobedience, Public Health Emergencies, or any other cause of any kind beyond the reasonable control of the university.
The University of Guelph reafirms section 1 of the Ontario Human Rights Code, 1981, which prohibits discrimination on the grounds of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, handicap, age, marital status or family status.
The university encourages applications from women, aboriginal peoples, visible minorities, persons with disabilities, and members of other under-represented groups.
Introduction

Collection, Use and Disclosure of Personal Information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90f31_e.htm. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes. Certain personal information is disclosed to external agencies, including the Ontario Universities Application Centre, the Ministry of Advanced Education and Skills Development, and Statistics Canada, for statistical and planning purposes, and is disclosed to other individuals or organizations in accordance with the Office of Registrarial Services Departmental Policy on the Release of Student Information. For details on the use and disclosure of this information call the Office of Registrarial Services at the University at (519) 824-4120 or see https://www.uoguelph.ca/registrar/

Statistics Canada - Notification of Disclosure

For further information, please see Statistics Canada's web site at http://www.statcan.gc.ca and Section XIV Statistics Canada.

Address for University Communication

Depending on the nature and timing of the communication, the University may use one of these addresses to communicate with students. Students are, therefore, responsible for checking all of the following on a regular basis:

Email Address

The University issued email address is considered an official means of communication with the student and will be used for correspondence from the University. Students are responsible for monitoring their University-issued email account regularly.

Home Address

Students are responsible for maintaining a current mailing address with the University. Address changes can be made, in writing, through Registrarial Services.

Name Changes

The University of Guelph is committed to the integrity of its student records, therefore, each student is required to provide either on application for admission or on personal data forms required for registration, his/her complete, legal name. Any requests to change a name, by means of alteration, deletion, substitution or addition, must be accompanied by appropriate supporting documentation.

Student Confidentiality and Release of Student Information Policy Excerpt

The University undertakes to protect the privacy of each student and the confidentiality of his or her record. To this end the University shall refuse to disclose personal information to any person other than the individual to whom the information relates where disclosure would constitute an unjustified invasion of the personal privacy of that person or of any other individual. All members of the University community must respect the confidential nature of the student information which they acquire in the course of their work.

Complete policy at https://www.uoguelph.ca/secretariat/office-services/university-secretariat/university-policies.
# Table of Contents

Clinical Studies ........................................................................................................ 60
  Administrative Staff .............................................................................................. 60
  Graduate Faculty .................................................................................................. 60
  Associated Graduate Faculty .............................................................................. 60
  MSc Program ........................................................................................................ 60
  DVSc Program ..................................................................................................... 60
  Graduate Diploma Program .............................................................................. 61
  Collaborative Specializations ........................................................................... 61
  Courses ............................................................................................................... 61
Clinical Studies
The Department of Clinical Studies offers graduate programs leading to MSc and DVSc degrees and the graduate diploma.

Administrative Staff
Chair
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Graduate Program Assistant
Ariah Easley (102 Population Medicine, Ext. 54005)
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DVM, DVSc, DSVC, Dipl. ACVECC - Associate Professor
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BSc, Mount Allison, DVM Prince Edward Island, DVSc Guelph, Dipl. ACVIM - Associate Professor
Brigitte Brisson
DMV Montreall, DVSc Guelph, Dipl. ACVS - Professor
Heather Chalmers
BSc, DVM, PhD Guelph, Dipl. ACVR - Associate Professor
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VetMB, MA Cambridge, DVSc Guelph, Dipl. ACVS - Assistant Professor
Alice Defarges
DVM France (Allfort), MSc Montreal, Dipl. ACVIM - Assistant Professor
Sonja Fonfara
DVM, Dr med vet, PhD, CertVC, Dipl. ECVIM - Associate Professor
Thomas Gibson
BSc Guelph, BEdu Windsor, DVM, DVSc Guelph, Dipl. ACVS - Associate Professor and Graduate Program Coordinator
Joanne Hewson
DVM, PhD Guelph, Dipl. DACVIM (LA) - Associate Professor
Mark M. Hurtig
DVM Guelph, MSc Saskatchewan, Dipl. ACVS - Professor
Fiona James
HBSc Toronto, MSc Western, DVM, DVSc Guelph, Dipl. ACVIM - Assistant Professor
Carolyn L. Kerr
DVM, DVSc Guelph, PhD Western, Dipl. ACVAA - Professor and Chair
Judith Koenig
DVM, MSc Vet. Medicine (Australia), DVSc Guelph, Dipl. ACVS/ECVS - Associate Professor
Noel Moens
DVM Liege (Belgium), MSc Saskatchewan, Dipl. ACVS/ECVS - Associate Professor
Anthony Mutsaers
DVM Guelph, PhD Toronto, Dipl. ACVIM - Assistant Professor
Stephanie Nykamp
DVM, MSc Western, Dipl ACVR - Associate Professor & Associate Dean, Clinical Program
Michelle Ohlak
DVM, DVSc Guelph, Dipl. ACVS - Assistant Professor
Lynne O'Sullivan
DVM Prince Edward Island, DVSc Guelph, Dipl. ACVIM - Associate Professor
Chantale Pinard
DVM Guelph, MS Kansas State, Dipl. ACVO - Associate Professor
Andrea Sanchez Lazarra
DVM Murcia, DVSc Guelph - Assistant Professor
Melissa Sinclair
DVM Prince Edward Island, DVSc Guelph, Dipl. ACVAA - Associate Professor
Ameet Singh
BSc Mount Allison, DVM Atlantic Veterinary College, DVSc Guelph, Dipl. ACVS - Assistant Professor
Henry Stempfli

DVSc Program
The DVSc degree is offered in large animal surgery, small animal surgery, large animal medicine, small animal medicine, anaesthesiology, cardiology, neurology, ophthalmology, dermatology and radiology, depending upon availability. The program provides advanced academic preparation in both clinical training and research and is a unique post-professional doctoral-level degree. The DVSc differs from PhD training by emphasizing the development of both research and applied skills in the various areas of clinical specialization appropriate for preparation for specialty Board certification.

Doctors of Veterinary Science positions are usually funded positions, and are usually advertised and selected through the American Association of Veterinary Clinicians' website at www.virm.org which can be accessed in early October. Completed applications are due to us by December 1st each year, announcements made in early March and the start date is mid-July. Occasionally specialty training positions become available and are advertised on our website, as well as in the Canadian Veterinary Journal. This program involves one-third of the time taking a minimum of 5 graduate courses, conducting a research project and writing a thesis on the research, and two-thirds of the time in applied clinical practice. Applicants must be eligible to be licensed by the College of Veterinarians of Ontario.
The DVSs is currently an interdepartmental program and receives input from all academic departments in the Ontario Veterinary College (OVC): Biomedical Sciences, Clinical Studies, Pathobiology and Population Medicine.

Admission Requirements
A doctor of veterinary medicine (DVM) or equivalent which would allow the applicant to be eligible for licensure to practice veterinary medicine in Ontario. In addition a completed internship or equivalent is usually required.

Degree Requirements
Candidates are required to develop investigative skills in their chosen area of specialization by carrying out an original study, generally related to animal health. The results of research must make a significant contribution to the candidate's area of specialization and be written up as a thesis. Five graduate level courses are required.

Graduate Diploma Program
The diploma program in clinical studies was introduced to provide appropriate postgraduate discipline training for veterinarians who wish to improve their expertise in a specific area. It entails a full-time three-semester program for candidates who are veterinarians with limited time for graduate study but who desire to upgrade their knowledge and skills. The program requires the completion of formal graduate courses and extensive participation in the care of animals admitted to the Veterinary Teaching Hospital.

Clinical instruction is done using a service team concept, wherein a graduate diploma student interacts with DVSc students and faculty advisors. It is expected that graduates will return to private practice with enhanced clinical skills, or progress into MSc or internship programs.

Candidates are accepted based on adequate background preparation and availability of an advisor in the area of interest. Applicants should contact potential faculty advisors listed in the department website. This program is not intended to upgrade general knowledge to North American standards nor is this program intended to prepare foreign graduates for national board exams.

Admission Requirements
Admission to a postgraduate diploma program as a regular student may be granted, on recommendation of the department, to the holder of a recognized DVM degree (or equivalent) with at least 'B-' standing during the final two years of study.

Diploma Requirements
The student is assigned an advisor who is responsible for the planning and regular review of the program of the candidate. A thesis is not required. Both undergraduate and graduate courses may be taken and, when appropriate for the student, a review manuscript suitable for publication in a refereed scientific journal is prepared. For some students, a heavier course load is substituted for the manuscript requirement.

Collaborative Specializations
Faculty in Clinical Studies also participate in the collaborative specialization in Neuroscience.

Courses

Medicine

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Pre-requisites</th>
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<tr>
<td>CLIN*6010</td>
<td>Clinical Medicine F</td>
<td>0.50</td>
<td>Mammalian</td>
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<tr>
<td>CLIN*6030</td>
<td>Clinical Medicine W</td>
<td>0.50</td>
<td>Mammalian</td>
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<tr>
<td>CLIN*6031</td>
<td>Clinical Medicine S</td>
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<th>Pre-requisites</th>
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<tr>
<td>CLIN*6190</td>
<td>Neurology F</td>
<td>0.50</td>
<td>Mammalian, Elective</td>
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<tr>
<td>CLIN*6200</td>
<td>Concepts and Application of Infection Control U</td>
<td>0.50</td>
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<tr>
<td>CLIN*6380</td>
<td>Electrocardiography in Domestic Animals F,W,S</td>
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<td>Small Animal Internal Medicine I F</td>
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<td>Small Animal Internal Medicine II W</td>
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<td>CLIN*6570</td>
<td>Large Animal Internal Medicine I W</td>
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<td>Mammalian, Elective</td>
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<tr>
<td>CLIN*6580</td>
<td>Large Animal Internal Medicine II W</td>
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<tr>
<td>CLIN*6590</td>
<td>Large Animal Internal Medicine III W</td>
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<tr>
<td>CLIN*6661</td>
<td>Respiratory Physiology &amp; Pathophysiology U</td>
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<td>CLIN*6670</td>
<td>Structure &amp; Function of Animal Skin F,W,S</td>
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<td>CLIN*6680</td>
<td>Readings in Cardiology I F,W,S</td>
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<td>Mammalian, Elective</td>
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<tr>
<td>CLIN*6690</td>
<td>Readings in Cardiology II F,W,S</td>
<td>0.50</td>
<td>Mammalian, Elective</td>
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</tbody>
</table>
CLIN*6960 Special Topics: Zoological Med F,W [0.50]
Preparation for the ACZM examination and based on the published ACZM examination reading list. Students will prepare reading assignments that will be discussed during scheduled time. Each seminar will focus on a specific taxon group. A mock examination will be provided on an ACZM sub-specialty typically birds, reptiles, wildlife, terrestrial mammals, or aquatic medicine.
Restriction(s): Instructor consent required.
Department(s): Department of Clinical Studies

Surgery

CLIN*6170 Clinical Surgery F [0.50]
These are in-service clinical training courses based on case material presented to the student in the Veterinary Teaching Hospital. Under supervision, the student is expected to take primary responsibility for case management including decisions related to diagnosis, therapy, and client/referring veterinarian communications. Case material studied in each course reflects a different clinical subspecialty occurring in Fall (F), Winter (W), and Summer (S) semesters respectively. The student is required to prepare a paper for publication in a recognized peer review journal based on clinical case material presented to the teaching hospital. As an alternative, the paper can be an in-depth review article on a clinically relevant topic.
Department(s): Department of Clinical Studies

CLIN*6180 Clinical Surgery W [0.50]
These are in-service clinical training courses based on case material presented to the student in the Veterinary Teaching Hospital. Under supervision, the student is expected to take primary responsibility for case management including decisions related to diagnosis, therapy, and client/referring veterinarian communications. Case material studied in each course reflects a different clinical subspecialty occurring in Fall (F), Winter (W), and Summer (S) semesters respectively. The student is required to prepare a paper for publication in a recognized peer review journal based on clinical case material presented to the teaching hospital. As an alternative, the paper can be an in-depth review article on a clinically relevant topic.
Department(s): Department of Clinical Studies

CLIN*6181 Clinical Surgery S [0.50]
These are in-service clinical training courses based on case material presented to the student in the Veterinary Teaching Hospital. Under supervision, the student is expected to take primary responsibility for case management including decisions related to diagnosis, therapy, and client/referring veterinarian communications. Case material studied in each course reflects a different clinical subspecialty occurring in Fall (F), Winter (W), and Summer (S) semesters respectively. The student is required to prepare a paper for publication in a recognized peer review journal based on clinical case material presented to the teaching hospital. As an alternative, the paper can be an in-depth review article on a clinically relevant topic.
Department(s): Department of Clinical Studies

CLIN*6270 Applied Surgical Principles U [0.25]
General surgical principles associated with surgical and related treatment of various body systems. This is an applied course with laboratory and written components. Prerequisite: must have prior surgical training.
Department(s): Department of Clinical Studies

CLIN*6310 Advanced Equine Veterinary Orthopaedics U [0.50]
This course will provide the student with an in-depth understanding of orthopaedic practice and will facilitate revision of materials to prepare board certification.
Prerequisite(s): DVM or BSc
Department(s): Department of Clinical Studies

CLIN*6600 Equine Soft Tissue Surgery I F,W,S [0.50]
Based on required reference reading, every other week discussion will cover advanced soft tissue procedures performed in equine surgery. Guest lectures on selected topics will be presented. Laboratory will be given.
Department(s): Department of Clinical Studies

CLIN*6610 Equine Soft Tissue Surgery II F,W,S [0.50]
Based on required reference reading, every other week discussion will cover advanced soft tissue procedures performed in equine surgery. Guest lectures on selected topics will be presented. Laboratory will be given.
Department(s): Department of Clinical Studies

CLIN*6620 Ruminant Surgery W [0.50]
Through lectures/seminars, medical and surgical laboratories, and detailed case discussions, this course provides practical experience in ruminant medical, radiological and surgical procedures and in problem-solving related to ruminant practice.
Department(s): Department of Clinical Studies

CLIN*6700 Pathophysiology in Small Animal Surgery I F,W,S [0.50]
Based on required reference reading, weekly discussions will cover the disease mechanisms involved in medical problems commonly encountered in small animal surgical practice. Guest lectures on selected topics will be presented.
Department(s): Department of Clinical Studies

Anesthesiology

CLIN*6420 Anesthesiology I S [0.50]
A course in advanced veterinary anesthesia and allied topics such as fluid, acid-base, and electrolyte balance, shock therapy, and cardio pulmonary resuscitation.
Department(s): Department of Clinical Studies

CLIN*6430 Advanced Principles of Diagnostic Imaging U [0.50]
Based on required reference reading, weekly discussions will cover the disease mechanisms involved in medical problems commonly encountered in small animal surgical practice. Guest lectures on selected topics will be presented.
Department(s): Department of Clinical Studies

Radiology

CLIN*6330 Advanced Principles of Diagnostic Imaging U [0.50]
This course is intended for students pursuing a career in veterinary radiology. Using a lecture-discussion format, the science of x-ray production and the fundamentals of other diagnostic imaging modalities will be presented. The specific applications of these techniques to research and clinical situations will be investigated.
Department(s): Department of Clinical Studies

CLIN*6350 Advanced Radiology I F,W,S [0.50]
Radiographic changes seen in diseases of the thorax and abdomen are demonstrated by using radiographs. Contrast and special studies are included where applicable.
Department(s): Department of Clinical Studies

CLIN*6370 Advanced Radiology II F [0.50]
A continuation of CLIN*6350, covering radiographic abnormalities of the neurological and skeletal systems.
Department(s): Department of Clinical Studies

General

CLIN*6900 Clinical "Grand Rounds" Seminar F,W [0.25]
This course allows each participant the opportunity to present a clinical case to colleagues in the veterinary school. The topic must be approved by the course co-ordinator. The oral presentation will be evaluated, as will the written presentation, which should be in a form suitable for submission to a veterinary journal.
Department(s): Department of Clinical Studies

CLIN*6920 Veterinary Clinical Practice I F [0.50]
These are in-service clinical training courses for intern/graduate-diploma students based on case material presented to the Veterinary Teaching Hospital. Under supervision, the intern/graduate-diploma student, as part of a service team with a faculty clinician, is expected to hone his/her diagnostic, therapeutic and surgical skills, and gain experience with animal restraint and nursing care. They will also develop a problem-oriented approach to health management and disease. Case material studied in each course reflects the clinical problems commonly occurring in the Fall, Winter and Summer semesters respectively.
Restriction(s): Instructor consent required.
Department(s): Department of Clinical Studies

CLIN*6710 Pathophysiology in Small Animal Surgery II F,W,S [0.50]
Department(s): Department of Clinical Studies

CLIN*6710 Pathophysiology in Small Animal Surgery II F,W,S [0.50]
Based on required reference reading, weekly discussions will cover the disease mechanisms involved in medical problems commonly encountered in small animal surgical practice. Guest lectures on selected topics will be presented.
Department(s): Department of Clinical Studies

CLIN*6440 Anesthesiology II F,W,S [0.50]
A discussion, reading and investigative course on research methods in comparative anesthesiology.
Prerequisite(s): CLIN*6420 is normally a prerequisite
Department(s): Department of Clinical Studies

CLIN*6460 Anesthesiology III: Species Specific and Coexisting Disease Considerations F-W [0.50]
A course in advanced veterinary anesthesia that focuses on the scientific literature related to the anesthesia of specific species and veterinary patients with varying underlying diseases.
Prerequisite(s): DVM; CLIN*6420 and CLIN*6440
Department(s): Department of Clinical Studies

August 10, 2018
<table>
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<tr>
<th>Course Code</th>
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<th>Description</th>
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<td>Veterinary Clinical Practice II W [0.50]</td>
<td>These are in-service clinical training courses for intern/graduate-diploma students based on case material presented to the Veterinary Teaching Hospital. Under supervision, the intern/graduate-diploma student, as part of a service team with a faculty clinician, is expected to hone his/her diagnostic, therapeutic and surgical skills, and gain experience with animal restraint and nursing care. They will also develop a problem-oriented approach to health management and disease. Case material studied in each course reflects the clinical problems commonly occurring in the Fall, Winter and Summer semesters respectively.</td>
<td>Instructor consent required.</td>
<td>Department of Clinical Studies</td>
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<tr>
<td>CLIN*6940</td>
<td>Veterinary Clinical Practice III S [0.50]</td>
<td>These are in-service clinical training courses for intern/graduate-diploma students based on case material presented to the Veterinary Teaching Hospital. Under supervision, the intern/graduate-diploma student, as part of a service team with a faculty clinician, is expected to hone his/her diagnostic, therapeutic and surgical skills, and gain experience with animal restraint and nursing care. They will also develop a problem-oriented approach to health management and disease. Case material studied in each course reflects the clinical problems commonly occurring in the Fall, Winter and Summer semesters respectively.</td>
<td>Instructor consent required.</td>
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<tr>
<td>CLIN*6950</td>
<td>Special Topics in Clinical Studies F,W,S [0.50]</td>
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<tr>
<td>CLIN*6990</td>
<td>Project in Clinical Studies F,W,S [1.00]</td>
<td>This course involves participation in a clinical research project or clinical retrospective study. A review of the relevant literature will be performed. A manuscript suitable for publication in a peer-reviewed journal will be prepared, and the study will be presented in a departmental seminar.</td>
<td>Only available to students enrolled in the MSc by Coursework Program.</td>
<td>Department of Clinical Studies</td>
</tr>
</tbody>
</table>