Clinical Medicine I, VETM*3430

Fall/Winter 2017-2018

0.25 Credits

Calendar Description

The course will contribute to students' achievement of selected elements of graduating 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 and diagnostic tools using case material from the OVC Health Sciences Centre and Hill's Pet Nutrition Primary Healthcare 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://ovc.uoguelph.ca/sites/default/files/users/ovcweb/files/PhaseLearningOutcomes_20150717.pdf). Department of Clinical Studies.

Course Coordinators

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Instructors

Clinical Faculty (Department of Clinical Studies)
Ruminant Field Service Faculty (Department of Population Medicine)
Graduate Students (Departments of Clinical Studies and Population Medicine)
Clinical Residents, Interns and AHT's (OVC Health Sciences Centre)
Hill's Pet Nutrition Primary Healthcare Centre Faculty (Departments of Population Medicine and Clinical Studies) and hospital staff

Administrative Information

For questions regarding academic consideration, continuation of study, academic misconduct, safety, confidentiality, and experiential learning involving use of animals, please refer to the Phase 1 information on the OVC website.

Course Intended Learning Outcomes

The Clinical Medicine courses presented in Phases 1, 2 and 3 represent a continuum of learning intended to foster student mastery of seven main learning outcomes by the end of Phase 3 of the DVM program:

- Animal handling and restraint
- History taking
- Physical examination of common domestic species
- Diagnosis
- Clinical problem solving
- Treatment and planning
- Medical records

This course is the first of three Clinical Medicine courses that veterinary students will complete throughout the DVM curriculum. VETM*3430 Clinical Medicine I introduces aspects of the clinical evaluation as outlined below. These learning outcomes are then built upon, becoming more detailed and clinically advanced, in the Clinical Medicine courses of Phases 2 and 3. Students are expected to view the course contents of Clinical Medicine I as life-long learning of skills that will be needed during their career in veterinary medicine. Therefore, information taught during Clinical Medicine I will also be examined as a component of future Clinical Medicine courses in Phases 2 and 3 of the DVM program.

Graduates of VETM*3430 Clinical Medicine I must be able to perform skills in the following categories:

Animal Handling and Restraint

- **Safely and humanely handle and restrain common domestic large and small animal species**
- **Describe safe and humane handling of birds and small mammal species**

History Taking

- **Develop and utilize observational and inquiry skills**
- **Know and utilize a standard process for obtaining a history in any species**

- **Know what constitutes a normal history in any species**

Physical Examination
- **Perform a basic physical exam at the animal level (360° - in common domestic large and small animal species)**
- **Demonstrate a sequential/logical approach**
- **Demonstrate efficiency in time to completion**
- **Describe clinical examination of avian and small mammal species**

Diagnosis
- **Generate a problem list**

Clinical Problem Solving
- **Identify strategies and approaches common to veterinary medicine for problem solving**
  - **describe the strategy**
  - **know and describe how elements of the strategy can be used**

Preparation of Medical Records
- **Identify the elements of the medical record**
- **Know and adhere to legal and professional requirements of the record including the documenting of animals for learning and teaching activities**
- **Maintain client confidentiality**

Although lectures, online learning materials, and laboratories will introduce the skills required to meet these intended learning outcomes, students will need to pursue considerable self-study practice of these skills in order to master them at a level that is required to pass this course.

Course Description

This course consists of 17 lectures; 7 clinically-oriented laboratories (devoted to animal restraint, obtaining a patient history, general and systems-specific physical examination techniques, and clinical problem-solving); 2 review laboratories; and prescribed self-study material available on the Courselink website for this course.

Regulations Pertaining to Student Safety and Due Diligence

Due Diligence: Safety in the clinic and barn is a priority at all times. In order to ensure safety of all participants, the safety procedures/guidelines provided by the instructor must be followed. It is the responsibility of each student to attend any safety orientation that is provided.

* NOTE: It is expected that students will conduct themselves in such a manner during this course that **neither personal, peer or instructor safety will be compromised, and animal safety and welfare will be optimized**. The expectation is that students will demonstrate confidence and common sense while working around and with domestic animals. Students are required to be able to recognize the common premonitory signs of aggressive or potentially aggressive behavior in all species encountered in this course, as well as situations that could precipitate such behavior. Students are expected to anticipate and take appropriate action to avoid human or animal injury at all times.

Client Confidentiality: At times in this course, students will work with client-owned animals. Please note that access to the clinical record is a **PRIVILEGE**, not a right, and must be protected. Students are reminded that all medical record information must be treated as **ABSOLUTELY CONFIDENTIAL and must NOT be discussed outside of the College**. In particular, the identity of clients and their animals must NEVER be divulged to anyone who does not have Medical Records privileges (see OVC Health Sciences Centre Policies and Procedures Book and OVC Health Sciences Centre Undergraduate Hospital Manual). Student postings of case pictures or descriptions of cases using social media are **strictly prohibited**.

Hygiene: Handwashing is the single most important procedure for preventing the spread of infections. Students are expected to incorporate this procedure as routine practice before and after patient contact or contact with animal bodily fluids, excretions/secretions or contaminated inanimate objects. Appropriate technique for effective handwashing is taught in this course, and is the standard expected throughout the DVM program.

***When handling client-owned large animal species, the use of gloves is required. Please also wash hands following removal of gloves.**

Personal Attire in Large Animal Laboratories and during independent practice time: Students are required to wear **clean protective coveralls** for all Large Animal Laboratories and during

independent practice time with large animals. As well, students are required by the University of Guelph safety policy to wear **approved safety boots or shoes (steel-toed)** when working with large animal species. Long hair (shoulder length) must be tied back. Any hand, wrist or neck jewelry must be removed prior to attending the Large Animal labs. Students will **NOT** be permitted to participate in scheduled activities involving large animals if they do not comply. Lab coats are not permitted in the Large Animal Laboratories.

Personal Attire in Small Animal Laboratories and during independent practice time: Students are required to wear **clean, long blue lab coats and closed-toe shoes**.

Personal Attire in the Hill's Pet Nutrition Primary Healthcare Centre:
Students are required to wear clean, presentable **"business casual" attire** (see the Dress Standard document under PHC Day One Core Protocols and SOPs in the OVC Phase – 1 Companion Animal Primary Care Courselink site for full details), their **long blue lab coat**, **closed-toe shoes** and a **name badge** that clearly displays their first and last name. Once an individual University Access Card that displays the student's name and colour strip of Phase year has been obtained, this access card will be required to wear as the identification/name badge at all times in the PHC.

Biosecurity:
Coveralls and labcoats used in Anatomy dissection laboratories or in the OVC Health Sciences Centre on client-owned animals must be appropriately laundered prior to wearing these to handle any of the OVC teaching herd animals. Similarly, coveralls and labcoats must be laundered following **each** Clinical Medicine laboratory and before using them for other courses.

Before exiting Barn 37 or the Clinical Skills Building, thoroughly wash your boots with the boot brush and disinfectant solution that is provided. Hands should then also be properly washed.

Digital Recording: Digital recording and photography are not permitted during lectures and laboratories in this course, or during independent practice time with the OVC teaching animals.

Teaching Strategies

Many of the skills taught and practiced in this course (e.g. conducting a client interview to obtain a general history, general physical examination, using a problem-oriented medical approach) are common to all species. Although some activities will be predominantly demonstrated and practiced in a single species in this course, students are expected to transfer skills across species. Introductory exposure to handling, restraint and examination of birds and small mammal species will also be provided through online learning resources. This course is intimately tied to other Phase I courses, in particular Veterinary Anatomy, Art of Veterinary Medicine I, and Health Management I. Students will be expected to know and apply content from those courses during their Clinical Medicine I learning. Content from these and other Phase I courses may be examined during the Clinical Medicine I final integrated Objective Standardized Clinical Examination (OSCE) at the end of the academic year.

MODULES

Thematic modules are structured to provide content knowledge in advance of student practice of skills across the various domestic species (dog/cat/horse/cow/sheep) encountered in this course. Each module may contain a combination of lectures, online learning materials, and laboratory practice sessions.

I. MODULE LECTURES

Lectures are scheduled throughout the course to strategically deliver preparatory knowledge in advance of practicing application of this knowledge in the laboratories. Lecture slides and/or accompanying detailed notes will be posted on the course website.

II. MODULE REQUIRED SELF-STUDY AND ONLINE QUIZZES

As part of each course module, students are expected to study the additional course material posted on the course website **(VETM3430 Clinical Medicine I site on Courselink)**. These online materials are intended to prepare students in order to optimize their learning during the laboratory time. As part of this online preparatory learning, online quizzes are to be completed prior to the listed deadlines in the **Calendar of Course Events**, and will contribute to the final course grade. During the period when each quiz is open, the student can complete the quiz at any time. However, once starting the quiz, they must complete and submit it within the stated time limit of the quiz. Students that miss or fail a quiz will not be given the opportunity to take a supplemental quiz. **Students that are unable to complete the online quizzes and submit them by the respective closing dates will require documentation of academic consideration from the Office of the Associate Dean-**

Students prior to missing the posted closing date, in order to redistribute the missed grade towards their final OSCE examination score, otherwise a mark of 0% will be assigned to any missed online quizzes. Please note that students that initiate a quiz cannot then seek academic consideration for that quiz.

III. MODULE LABORATORIES

a. This course involves a series of 7, clinically-oriented laboratories, plus 2 practical review laboratories prior to the final integrated OSCE. Each laboratory group consists of approximately ¼ of the class. Typically, each laboratory period will involve active practice of the skills outlined in the laboratory-specific intended learning outcomes for each laboratory.
b. Students are expected to review the laboratory-specific intended learning outcomes (posted on the course website) prior to attending each laboratory session, and to bring a copy to the laboratory to guide their learning. Students are expected to adequately prepare for each laboratory prior to attending, by thorough review of the online supporting material provided for each lab topic. Students will also be expected to be familiar or become familiar with all anatomic information and terminology relevant to general physical examination, using supporting materials from other Phase 1 courses.
c. The majority of live animal demonstrations in Clinical Medicine I have been replaced by online videos, and students are therefore expected to know this material in advance of the laboratories in this course, where they will be working with live animals.
d. Laboratories start promptly at the assigned time, therefore students are expected to arrive on time. Due to the size of groups for each laboratory, we are not able to accommodate students attending a laboratory other than the one to which they are assigned. There will be no opportunity to make-up any missed labs.
e. Students must bring a stethoscope, penlight, digital thermometer, pen, and watch to every laboratory and to the final OSCE examination. Smart phones are not a suitable substitute for a watch.
f. Smart phone use for any purpose is prohibited during laboratory sessions.
g. No food or drink may be consumed in the animal use areas.
h. Students will be expected to resolve any learning issues that arise by discussion with laboratory instructors, classmates, or by consulting reference texts or other learning resources.

EXPERIENTIAL LEARNING

Experiential learning is also built into this course to support the skills learned in the course lectures and laboratories. Specifically, experiential learning will include the following mandatory components:

- Rotation through the Hill's Pet Nutrition Primary Healthcare Centre at OVC
- Horse Care Week

I. ROTATION THROUGH THE HILL'S PET NUTRITION PRIMARY HEALTHCARE CENTRE

The Hill's Pet Nutrition Primary Healthcare Centre (PHC) contains the Smith Lane Animal Hospital (SLAH), which is a fully functional primary care veterinary hospital. This rotation provides students with an experiential learning opportunity to clinically apply, reinforce and build upon their overall learning in the DVM curriculum. In assigned rotation times (as per the DVM schedule) at the PHC, students will be expected to actively observe and/or participate in clinical activities occurring at the PHC. There are assignments linked to this PHC experience that help you to put your clinical knowledge into practice, however, these are not intended to detract from the experiential clinical learning that takes place during your PHC rotation shifts. Given that the SLAH is a fully functional companion animal primary care practice that caters to the public, there is little control over what students may or may not experience in terms of watching appointments or helping with cases. If students are present at times when there are appointments to watch and/or help with, it is encouraged that this takes priority. At times when there are less appointment bookings and therefore less opportunity to watch or help with appointments, students are expected to complete their PHC Assignments. Students are therefore expected to access and utilize the relevant and necessary resources at the PHC to complete their PHC Assignments **either during or outside of their scheduled shifts**. Specific learning outcomes are outlined within the individual assignments. Complete information about the assignments and learning at the PHC is available on the OVC Phase – 1 Companion Animal Primary Care site on CourseLink. Opening times for the PHC and SLAH can be found on the PHC website.

While participating in the assigned rotation times, it is expected that students will conduct themselves as a member of the PHC healthcare team. Students must attend all assigned rotation times at the PHC and submit their assignments by 4pm on April 2, 2018. Unless academic consideration has been granted, assignments submitted after this time will not be marked.

For all questions about PHC assignments and learning activities please contact Dr. Deep Khosa (dkhosa@uoguelph.ca). All rotation scheduling enquires should also be sent to dkhosa@uoguelph.ca.

II. HORSE CARE WEEK

During participation in a mandatory assigned week of horse care, students will work with several OVC Equine Teaching Herd animals in order to accomplish the following learning objectives:

1. Practice of horse handling and care by performing:
   - daily grooming including foot care
   - daily exercise (handwalking for a minimum of 10 minutes daily)

Attendance on each day of the student's assigned Horse Care Week, plus submission of a completed and signed Daily Activity Log, is required for satisfactory completion of the Horse Care Week component of this course.

PRACTICE OF ACQUIRED KNOWLEDGE AND SKILLS

a. **Self-Study & Access to Animals for Practice:** To achieve a satisfactory skill level for successful completion of this course, students must take advantage of opportunities outside of scheduled laboratory time in order to practice performing physical examinations and to evaluate clinical material:
   - Designated time has been built into the Phase 1 schedule for students to practice the skills learned in Clinical Medicine I and the Live Animal portion of Anatomy. Students are expected to make full use of this time to regularly practice their skills throughout the year.
   - Students may also book additional time to independently practice in small groups outside of the Phase 1 schedule. Large animal species (cattle, horses, sheep) housed in Barn 37 will be accessible for practice outside of scheduled times only during regular working hours (Monday to Friday, 8am to 4pm), provided that other courses are not using the animals or facility. Prior to large animal use for practice, permission must be obtained from Rob Leighton (rleighto@uoguelph.ca), who will specify which animal(s) you may use.
   - Instructions for recording animal use after you have finished are posted in Barn 37 near each species. Diligent recording of animal use in this manner is essential in order to avoid inadvertent overuse of individual animals, as they are shared between multiple courses.

- For safety reasons, you must work together in groups of 3 or more students when practicing with the large animal species. Coveralls and steel-toed footwear are required.
- The dogs used in most small animal labs are from the University of Guelph Central Animal Facility (CAF). These dogs are accessible for practice outside of laboratory time during CAF regular business hours. Please contact Annette Morrison at CAF (amorriso@uoguelph.ca) to arrange practice times.

- **NOTE THAT THE CLINICAL SKILLS BUILDING, BARN 37, AND ALL TEACHING HORSES/COWS/SHEEP WILL <u>NOT BE AVAILABLE</u> FOR PRACTICE OUTSIDE OF REGULARLY SCHEDULED LAB TIMES ON THE FOLLOWING DATES:**
    - **February 26 – March 2**
    - **Friday, March 9**
    - **March 12 - 16**
    - **April 5 & 6**

FINAL INTEGRATED OBJECTIVE STANDARDIZED CLINICAL EXAMINATION (OSCE):

This OSCE examination will incorporate <u>ALL</u> course content from Clinical Medicine I, including all materials associated with course lectures, online materials on the course Courselink website, laboratories, and other course-related assignments/activities. The exam format will be a multi-station rotation, of which some stations will be written responses requiring application of knowledge to practical scenarios, and others will require one-on-one demonstration of skills on live animals in the presence of an examiner. The student will need to come prepared to work with all of the species encountered throughout the course (dog/horse/cow/sheep). As such, proper attire and equipment is required as outlined for the laboratory sessions. VETM*3070 Veterinary Anatomy "Live Animal" material will also be incorporated into this OSCE, with grades from the Anatomy stations being allocated towards the final grade in that course.

CALCULATION OF FINAL COURSE GRADE:

VETM 3430 Clinical Medicine I Method of Assessment	% of Final Course Grade*
Large Animal Component:	**(50)**
- Online Quiz – Course outline; Biosecurity and Infection Control	4
- Online Quiz – Principles of Animal Handling/Restraint	4
- Nutrition Assignment – Large Animal Cases	4
- Online Quiz – Physical examination of large animal species	4
- Online Quiz – Restraint and examination of small ruminants; Problem-oriented medical approach; Medical records	4
- Horse Care Week assignment	Complete
- OSCE Examination – Large Animal Subsection	30
Small Animal Component:	**(50)**
- Nutrition Assignment – Small Animal Cases	4
- Online Quiz – Physical examination of small animal species	4
- Online Quiz – Examination of the Cardiovascular System	4
- Online Quiz – Examination of the Neurological System	4
- PHC Nutrition assignment	2
- PHC Radiology assignment	2
- PHC Guided Consultations assignment	Complete
- OSCE Examination – Small Animal Subsection	30

***NOTE: In order to achieve a passing overall grade for VETM3430: Clinical Medicine I, students must achieve <u>ALL</u> of the following:**

- At least 60% cumulative grade within <u>each</u> of the Large Animal and Small Animal components of this course:

  - Students that achieve less than 50% cumulative grade in one component will automatically be assigned a failing grade (49%, or their original course grade if lower than 49%) for the entire Clinical Medicine I course.

- Students that achieve between 50-59% cumulative grade in one or more components of the course will be required to remediate and then complete a conditional repeat examination of the component(s) material. The conditional repeat examination will occur during the deferred examination period in May. The format of the conditional repeat examination is the responsibility of the Clinical Medicine I instructor coordinating that component of the course. The format will be communicated to the student via email two weeks prior to the conditional repeat examination date. Students are responsible for their own remediation in preparation for the conditional repeat examination, and are expected to seek instructor feedback as part of this process. If a passing grade (60%) is achieved on the conditional repeat examination, then the original grade for that component will be used in calculating the student's overall course grade. Failure to achieve a passing grade (60%) on the conditional repeat examination of any component will result in the student automatically being assigned a failing grade (49%, or their original course grade if lower than 49%) for the entire Clinical Medicine I course.

- A grade of 20/30 or greater on <u>each</u> of the Large Animal and Small Animal subsections of the final integrated OSCE:

  - Students who achieve <u>less</u> than 20/30 on either of the Large Animal or Small Animal subsections of the final integrated OSCE exam but still have at least 60% cumulative grade within each of the Large Animal and Small Animal components of the course will be required to take a conditional repeat exam of that failed OSCE subsection. The conditional repeat examination will occur during the deferred examination period in May. The format of the conditional repeat examination is the responsibility of the Clinical Medicine I course coordinator for the respective subsection, and will be communicated to the student via email two weeks prior to the conditional repeat examination date. Students are responsible for their own remediation in preparation for the conditional repeat examination, and are expected to seek instructor feedback as part of this process. If a passing grade (60%) is obtained on the conditional repeat examination, then the original grade on the OSCE subsection will be used in calculating the final course grade. Failure to achieve a passing grade (60%) on the conditional repeat examination on either OSCE subsection will result in the student automatically

being assigned a failing grade (49%, or their original course grade if lower than 49%) for the entire Clinical Medicine I course.

- Successful completion of the Horse Care Week:

  - Students must complete all required shifts in their assigned Horse Care Week and submit a completed and signed Daily Activity Log by **4pm on April 2, 2018** in order to successfully complete course requirements for Clinical Medicine I unless academic consideration has been granted. If all Horse Care Week requirements are not completed, a grade of 49% (or their original course grade if lower than 49%) will be assigned in Clinical Medicine I.

- Successful completion of the Primary Healthcare Centre course requirements:

  Students must attend all assigned rotation shifts at the PHC to successfully complete course requirements for Clinical Medicine I. If all PHC rotation shifts are not completed, a grade of 49% (or their original course grade if lower than 49%) will be assigned in Clinical Medicine I. In order to receive a numeric grade for this component of Clinical Medicine I, all PHC assignments must be submitted for marking by **4pm on April 2, 2018**. Unless academic consideration has been granted, assignments submitted after this time will not be marked.

Failure to achieve these requirements will result in a final overall course grade of 49% (or their original course grade if lower than 49%) being assigned regardless of marks attained in other sections of the course, and the student will fail the course.

Resources

All notes and instructional videos are available on the VETM*3430 Clinical Medicine I course website on Courselink. Printed course notes will not be provided.