



VETM*3460 Theriogenology

Fall 2019

Section(s): C01

Department of Biomedical Sciences

Credit Weight: 0.75

Version 1.00 - July 29, 2019

1 Course Details

1.1 Calendar Description

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.

Pre-Requisites: All Phase 1 courses.

Co-Requisites: All Phase 2 courses.

1.2 Timetable

Timetable is subject to change. Please see WebAdvisor for the latest information.

1.3 Final Exam

Exam time and location is subject to change. Please see WebAdvisor for the latest information.

2 Instructional Support

For questions regarding academic consideration, continuation of study, academic misconduct, safety, confidentiality, and experiential learning involving use of animals, please refer to admin information under Phase 2 on the OVC website.

Course coordinators and instructors will reply to emails concerning questions about course materials or examination materials when possible. Questions by email regarding Monday AM midterms may not be replied to after the preceding Friday at 5 pm.

2.1 Instructional Support Team

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3 Learning Resources

3.1 Required Resources

Course Notes (Notes)

Course Notes Available On-line. The complete notes package will be available on CourseLink for you to view and/or print as your preferences indicate.

Powerpoints (Notes)

Lecture Powerpoints as .pdf files online. Every effort will be made by instructors to have powerpoint files up the day before the lecture.

3.2 Recommended Resources

Pathways to Pregnancy and Parturition, 2nd Ed., P.L. Senger, Current Conceptions Inc, WA. (Textbook)

Physiology

Highly Recommended

Veterinary Endocrinology and Reproduction, 5th ed; L.E. McDonald (Textbook)

Physiology

Highly Recommended

Current Therapy in Large Animal Theriogenology, 2nd Ed. Youngquist (Textbook)

General: Bovine, Equine and Small ruminant

Highly Recommended

Manual of Equine Reproduction; D. Varner; 2002 (Textbook)

Equine

Highly Recommended

The Drost Project – visual guide to theriogenology (Website)

Marestore.com (Website)

<http://www.Marestore.com>

This website is dedicated to foaling mares. Participant farms have live webcam videos of pregnant mares due to foal and foaling.

IVIS.org (Website)

<http://www.IVIS.org>

This is a valuable veterinary resource with conference proceedings and review articles on a wide variety of topics and species. You need to register to access, but registration is free.

Dr. Robert Foster's reproductive pathology website (Website)

<http://www.uoguelph.ca/~rfoster/reproath/repro.htm>

Canine and Feline Theriogenology; S.D. Johnson, M.V. Root Kustritz and P.N.S. Olson (Textbook)

Small Animals

Highly Recommended

Canine and Feline Endocrinology and Reproduction; Feldman and Nelson (Textbook)

Small Animals

Manual of Small Animal Reproduction and Neonatology; G. Simpson (Textbook)

Small Animals

Vet Clinics of North America: Small Animal Practice, March, 2001 31(2) (Textbook)

Small Animals

IVIS web site (Website)<http://ivis.org/>

Small Animals

Go to the "Recent Advances in Small Animal Reproduction" page.

Veterinary Reproduction and Obstetrics, 6th ed; G. Arthur, D. Noakes and H. Pearson (Textbook)

Obstetrics

4 Learning Outcomes

The objective of this course is for students to acquire an understanding of the reproductive biology and clinical theriogenology of the common domestic species, and develop an appreciation for the importance of reproduction in food animal, equine, mixed and small animal veterinary practice. These objectives will be taught through various approaches including lectures and laboratories (histology, gross pathology, rectal palpation, vaginal cytology and semen analysis labs).

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Compare and contrast the reproductive cycles, including the endocrinology, gross and histological anatomical features, of the various domestic species, and explain how they relate to reproductive management.
2. Summarize, diagnose and develop a treatment plan for the important clinical conditions of the main domestic species.
3. Perform rectal palpation in cows and mares, identifying the cervix, uterus and ovaries, including corpora lutea and follicles, and interpret the importance of ovarian structures present.
4. Solve case scenarios using an evidence-based approach, utilizing the knowledge of anatomy, cycles, reproductive management and diseases learned throughout the course.
5. Illustrate the anatomical and histological adaptations to male and female reproductive

tissues that permit function, but also predispose to disease.

5 Teaching and Learning Activities

6 Assessments

Assessment of students will be based on four written midterm examinations and a final examination. **All examinations will be cumulative.** Examination questions may be in the form of multiple choice, short answer and true / false questions, and visual slides may also be used. An additional laboratory assessment is also included.

Rectal Palpation Laboratories – The rectal palpation laboratories are elective. Students planning on pursuing a career in mixed animal, bovine or equine practice are encouraged to sign up for the palpation lab.

Students who intend to pursue small animal veterinary practice exclusively are not required to take the palpation lab. A lab introduction will include a video and question/answer session discussing the laboratory. The first cow palpation lab will introduce bovine rectal palpation using our model “Betsy” and tracts.

Participation in the equine palpation lab is also elective, however it requires full participation in the bovine lab in the fall semester (all 6 lab sessions) in order to give students basic palpation skills. Therefore, attendance will be taken at the bovine labs. Students who miss one or more bovine palpation labs will not be able to participate in the mare labs unless the bovine lab has been made-up, either in another lab or in pre-arranged make-up time. Please contact Dr. Chenier if you miss a bovine lab to arrange a make up slot.

Mare palpation labs will be available by sign-up. A limited number of student spaces will be available for each mare palpation lab due to the limited number of teaching mares in the herd; there may be additional opportunities for those students wishing a second mare palpation lab. Students who take the bovine palpation labs are **not required** to take the equine palpation lab if they do not want to.

*****IMPORTANT*** Some laboratories include compulsory written assignments that together carry a value of 6% of the final grade.** Completion of the laboratory assignments are required in order for the 6% laboratory grade to be credited. There is no specific mark per se given for each laboratory assignment. The 6% grade is an assignment completion mark. 3% is awarded for successful completion of each individual lab assignment. Deadlines for submission of assignments will be communicated at each laboratory. Failure to submit the lab assignment will result in a 0/3 grade for that laboratory component of the course. Failure to successfully complete both labs will result in 0/6 for the lab component. Students who must miss any laboratory assignment are required to obtain Academic Consideration as for all examinations. All assignments must be completed to the satisfaction of the appropriate faculty member and the course coordinator. Unsatisfactory assignments must be resubmitted, with ongoing consultation, until they are of appropriate quality. Laboratory

content will be included in the midterm and final examinations. **Specifically, the labs that include assignments are (1) vaginal cytology lab and (2) semen analysis lab. NOTE that the vaginal cytology laboratory occurs in the first week after returning from Christmas vacation. It is suggested that students make note of this if planning an extended vacation. There will NOT be an opportunity to make up either of these labs outside of the two times offered in the schedule.**

Examination Schedule:

If a midterm examination is missed and academic consideration is granted, alternative arrangements will be made by the course coordinator on an individual case basis. If academic consideration is not granted, a mark of zero will be allocated for the missed examination. Students must contact the Associate Dean of Students for academic consideration.

Midterm Exams are **cumulative** and will also include material covered in laboratory sessions.

Midterm Exam 1 - Value 4%

Midterm Exam 2 - Value 10%

Midterm Exam 3 - Value 10%

Midterm Exam 4 - Value 10%

Laboratory Assignments (2) - 3% each - total 6%

Final Exam - 60%

The final examination is cumulative and covers all lecture, laboratory and notes material in the course.

6.1 Assessment Details

Final exam (60%)

7 University Statements

7.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

7.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a

teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

7.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

7.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

7.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

More information can be found on the SAS website
<https://www.uoguelph.ca/sas>

7.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community-faculty, staff, and students-to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

7.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

7.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>
