1 Course Details

1.1 Calendar Description
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.

Pre-Requisites: All Phase 2 courses.
Co-Requisites: All Phase 3 courses.

1.2 Course Description
The course draws upon information from previous DVM courses; & consolidates & applies it to the study of common diseases (& some uncommon diseases) in ruminant species & swine. The principles of diagnosis & of medical & surgical treatment are emphasized.

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

1.4 Final Exam
Exam time & location are 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, & experiential learning involving the use of animals, please refer to the Phase information on the OVC web-site.
Building abbreviations for coordinators’ & instructors’ offices:

- ANCC Animal Cancer Centre
- OVCM OVC Main Building
- CRB Clinical Research Building
- PAHL Pathobiology/Animal Health Lab
- JASC J Archibald SA Clinic
- SB Stewart Building

2.1 Instructional Support Team

**Instructor:** Marie-Soleil Dubois  
**Email:** dubois@uoguelph.ca  
**Telephone:** +1-519-824-4120 x54003  
**Office:** ANCC 2166  
Dept. Clinical Studies

**Instructor:** Todd Duffield  
**Email:** tduffiel@uoguelph.ca  
**Telephone:** +1-519-824-4120 x54057  
**Office:** SB 2509A  
Dept. Population Medicine

**Instructor:** Diego Gomez  
**Email:** dgomezni@uoguelph.ca  
**Telephone:** +1-519-824-4120 x53726  
**Office:** ANCC 2161  
Dept. Clinical Studies

**Instructor:** Daniel Kenney  
**Email:** dkenney@uoguelph.ca  
**Telephone:** +1-519-824-4120 x54030  
**Office:** JASC 1417  
Dept. OVC-HSC

**Instructor:** Stephen LeBlanc  
**Email:** sleblanc@uoguelph.ca  
**Telephone:** +1-519-824-4120 x54594  
**Office:** SB 2543  
Dept. Population Medicine

**Instructor:** Terri O’Sullivan  
**Email:** tosulliv@uoguelph.ca  
**Telephone:** +1-519-824-4120 x54079  
**Office:** CRB 205  
Dept. Population Medicine

**Instructor:** Andrew Peregrine  
**Email:** aperegri@uoguelph.ca  
**Telephone:** +1-519-824-4120 x54714  
**Office:** PAHL 3825  
Dept. Pathobiology
3 Learning Resources

Lecture & case-discussion format, which will be supplemented with audiovisual material (e.g. PowerPoint slides/handouts, videos), lecture notes/handouts, reading material, study questions, etc. This supplemental material, which may vary between instructors, will be placed on the VETM*4460 CourseLink web-site.

3.1 Recommended Resources


3.2 Additional Resources
Applicable issues of Vet Clin N Am [Food Anim Pract]. (Readings)


Fubini SL, Ducharme NG. Farm animal surgery. 2nd ed. Saunders Elsevier, 2017. (Textbook)


4 Learning Outcomes

A. The goal of this course is to introduce the student to the diagnosis & management of common diseases (& the recognition of uncommon diseases) of ruminants & swine, using a body-system format. The student will be expected to integrate material from courses in the previous 2 phases.

B. History & clinical signs associated with common diseases will be described & used to establish differential diagnoses (common & uncommon) to be considered. For common diseases covered in this course, the following will be emphasized:
   1. Using general principles of the pathophysiology involved to develop a rationale for selection of diagnostic tests (sometimes including response to therapy).
   2. Implications of medical/surgical treatment (including implications of no treatment) relative to the prognosis for return to normal health & function.

C. As indicated, emphasis will also be placed on a herd/flock approach to the diagnosis/monitoring, treatment & prevention of disease.

4.1 Course Learning Outcomes

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

1. Define the history, clinical findings & diagnostic tests necessary to diagnose common diseases of ruminants & swine.

2. Establish a short list of differential diagnoses based on the history & presenting clinical signs, including any potentially significant uncommon diseases (e.g. foreign or reportable disease).

3. Formulate a treatment plan (medical &/or surgical) & discuss alternate therapies for the defined clinical problem.
   a. For the individual animal
   b. As related to herd/flock health & management

4. Give a prognosis for the defined clinical problem.
a. For the individual animal  
   b. As related to herd/flock health & management  

5. Be able to communicate these findings in a concise & understandable fashion to clients & colleagues.

5 Teaching and Learning Activities

5.1 Lecture

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 1 - Mammary gland disease 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: LeBlanc</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 2 - Mammary gland disease 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: LeBlanc</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 3 - Swine 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: O'Sullivan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 4 - Swine 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: O'Sullivan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 5 - Mammary gland disease 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: LeBlanc</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 6 - Mammary gland disease 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: LeBlanc</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 7 - Swine 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: O'Sullivan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 8 - Swine 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor: O'Sullivan</td>
<td></td>
</tr>
<tr>
<td>Topics:</td>
<td>Lecture 9 - Fluids, electrolytes &amp; acid-base</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Instructor:</td>
<td>Gomez</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 10 - Swine 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>O'Sullivan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 11 - Swine 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>O'Sullivan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 12 - Neonatal calf 1: Septicemia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>Gomez</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 13 - Neonatal calf 2: Diarrhea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>Gomez</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 14 - Swine 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>O'Sullivan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 15 - Neonatal calf 3: Diarrhea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>Gomez</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 16 - Swine 8: Parasites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>Peregrine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 17 - Swine 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>O'Sullivan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 18 - Nutritional &amp; metabolic disease 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>Duffield</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Lecture 19 - Nutritional &amp; metabolic disease 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor:</td>
<td>Duffield</td>
</tr>
</tbody>
</table>
**Topics:** Lecture 20 - Swine 10  
Instructor: O'Sullivan

**Topics:** Lecture 21 - Nutritional & metabolic disease 3  
Instructor: Duffield

**Topics:** Lecture 22 - Nutritional & metabolic disease 4  
Instructor: Duffield

**Topics:** Lecture 23 - Swine 11  
Instructor: O'Sullivan

**Topics:** Lecture 24 - Swine 12  
Instructor: O'Sullivan

**Topics:** Lecture 25 - Swine 13  
Instructor: O'Sullivan

**Topics:** Lecture 26 - GIT: Non-infectious disease 1  
Instructor: Arroyo

**Topics:** Lecture 27 - Swine 14  
Instructor: O'Sullivan

**Topics:** Lecture 28 - GIT: Non-infectious disease 2  
Instructor: Arroyo

**Topics:** Lecture 29 - Swine 15  
Instructor: O'Sullivan

**Topics:** Lecture 30 - GIT: Non-infectious disease 3  
Instructor: Arroyo
**Topics:** Lecture 31 - GIT: Infectious disease 1  
**Instructor:** Arroyo

**Topics:** Lecture 32 - GIT: Infectious disease 2  
**Instructor:** Arroyo

**Topics:** Thanksgiving Holiday

**Topics:** Lecture 33 - GIT: Infectious disease 3  
**Instructor:** Arroyo

**Topics:** Midterm Exam 1: 23 lectures  
**Instructor:** Arroyo, Gordon, Trout

**Topics:** Midterm-1 Review  
**Instructor:** Gomez, LeBlanc, O'Sullivan, Peregrine

**Topics:** Lecture 34 - GIT: Infectious disease 4  
**Instructor:** Arroyo

**Topics:** Lecture 35 - GIT: Infectious disease 5  
**Instructor:** Arroyo

**Topics:** Lecture 36 - GIT: Infectious disease 6  
**Instructor:** Arroyo

**Topics:** Lecture 37 - Abdominal surgery 1: Anatomy  
**Instructor:** Dubois

**Topics:** Lecture 38 - Abdominal surgery 2: Approaches  
**Instructor:** Dubois

**Topics:** Lecture 39 - Abdominal surgery 3: Abomasal displacement
Instructor: Dubois

**Topics:**
Lecture 40 - Abdominal surgery 4: Abomasal displacement

Instructor: Dubois

**Topics:**
Lecture 41 - General surgery 1: Umbilical surgery

Instructor: Trout

**Topics:**
Lecture 42 - Abdominal surgery 5: Cecum, cesarean section

Instructor: Dubois

**Topics:**
Lecture 43 - General surgery 2: Umbilical surgery, castration

Instructor: Trout

**Topics:**
Lecture 44 - General surgery 3: Castration, dehorning

Instructor: Trout

**Topics:**
Lecture 45 - General surgery 4: Dehorning

Instructor: Trout

**Topics:**
Midterm Exam 2: 18 lectures

Instructor: Arroyo, Gordon, Trout

**Topics:**
Lecture 46 - General surgery 5: Urolithiasis

Instructor: Trout

**Topics:**
Lecture 47 - Dermatology 1: Parasitic disease

Instructor: Peregrine

**Topics:**
Lecture 48 - Dermatology 2

Instructor: Arroyo

**Topics:**
Midterm-2 Review

Instructor: **Arroyo, Dubois, Duffield**
<table>
<thead>
<tr>
<th>Topics</th>
<th>Lecture</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lecture 49 - Urinary tract disease 1</strong></td>
<td></td>
<td>Gomez</td>
</tr>
<tr>
<td><strong>Lecture 50 - Urinary tract disease 2</strong></td>
<td></td>
<td>Gomez</td>
</tr>
<tr>
<td><strong>Lecture 51 - Respiratory disease 1</strong></td>
<td></td>
<td>Gomez</td>
</tr>
<tr>
<td><strong>Lecture 52 - Respiratory disease 2</strong></td>
<td></td>
<td>Gomez</td>
</tr>
<tr>
<td><strong>Lecture 53 - Respiratory disease 3</strong></td>
<td></td>
<td>Gomez</td>
</tr>
<tr>
<td><strong>Lecture 54 - Respiratory disease 4</strong></td>
<td></td>
<td>Gomez</td>
</tr>
<tr>
<td><strong>December/January Holidays Break</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lecture 55 - Circulatory disorders 1</strong></td>
<td></td>
<td>Kenney</td>
</tr>
<tr>
<td><strong>Lecture 56 - Circulatory disorders 2</strong></td>
<td></td>
<td>Kenney</td>
</tr>
<tr>
<td><strong>Lecture 57 - Circulatory disorders 3</strong></td>
<td></td>
<td>Kenney</td>
</tr>
<tr>
<td><strong>Lecture 58 - Diseases of the lymphoid system</strong></td>
<td></td>
<td>Kenney</td>
</tr>
<tr>
<td><strong>Lecture 59 - Bovine lameness 1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Instructor: Gordon

**Topics:** Lecture 60 - Bovine lameness 2

Instructor: Gordon

**Topics:** Lecture 61 - Bovine lameness 3

Instructor: Gordon

**Topics:** Lecture 62 - Bovine lameness 4

Instructor: Gordon

**Topics:** Winter Break

Instructor: Gordon

**Topics:** Midterm Exam 3: 21 lectures

Instructor: Arroyo, Gordon, Trout

**Topics:** Lecture 63 - Small ruminant 1

Instructor: Winder

**Topics:** Lecture 64 - Small ruminant 2

Instructor: Winder

**Topics:** Lecture 65 - Small ruminant 3

Instructor: Winder

**Topics:** Lecture 66 - Small ruminant 4

Instructor: Winder

**Topics:** Lecture 67 - Small ruminant 5

Instructor: Winder

**Topics:** Lecture 68 - Neurology 1

Instructor: Kenney
Midterm-3 Review
Instructors: Arroyo, Gomez, Gordon, Kenney, Peregrine, Trout

Lecture 69 - Neurology 2
Instructor: Kenney

Lecture 70 - Small ruminant 6: Parasite control programs
Instructor: Peregrine

Lecture 71 - Neurology 3
Instructor: Kenney

Lecture 72 - Vaccination programs: Dairy
Instructor: Gordon

Lecture 73 - Ophthalmology 1
Instructor: Pinard

Lecture 74 - Ophthalmology 2
Instructor: Pinard

Lecture 75 - Parasite control programs: Dairy
Instructor: Peregrine

Lecture 76 - Parasite control programs: Beef
Instructor: Peregrine

Lecture 77 - Vaccination programs: Beef
Instructor: Gordon

Final Exam: Comprehensive over entire course
Instructor: Arroyo, Gordon, Trout
6 Assessments

Four Examinations: 3 midterm exams & a final exam (see details below). For Academic Consideration, please contact the Associate Dean, Students and Academic (ovc.dvmacademics@uoguelph.ca).

There will be a post-examination review session after each of the midterm exams (i.e. after grading is completed). The basic idea of the session will be to clear up any obvious misconceptions or problem areas, & to answer specific questions that arise during the session.

- Prior to the session, students will receive their grades.
- Prior to the session, examiners will receive student-performance information.
- Each examiner (or designated substitute) will be present at the session.
- Using student-performance information regarding their questions, each examiner will review any questions in which performance was marginal or poor. Obviously, other questions will also be reviewed, as indicated during the session.
- Details of how the review session will run will be posted by the course coordinators ahead of the session. By participating in the session, the student agrees that they will not copy or retain any exam questions, nor will they disseminate exam information to other students. Doing so would constitute academic misconduct and would be reported for investigation as per the University of Guelph Academic Misconduct policy.
- For 3 weeks after the review session, students may still review their own exam & the correct answers on an individual basis by appointment with the Administrative Assistant, Dept. of Clinical Studies (ovcsas.clin@uoguelph.ca). There will not be an opportunity to review the examination outside of this period. The same expectations for academic integrity apply during any independent review as stated above for the review session.

6.1 Assessment Details

Midterm exam 1 (19%)
a. 23 lectures from Weeks 1-5
b. LeBlanc  Mammary gland disease  4 lectures
   Gomez  Fluids, electrolytes & acid-base
   Neonatal calf
   O'Sullivan & Peregrine  Swine  15
                      23
Midterm exam 2 (14%)
  a. 18 lectures from Weeks 3-9
    b. Duffield  Nutritional & metabolic disease  4 lectures
       Arroyo  GI tract: Non-infectious disease  3
       Arroyo  GI tract: Infectious disease  6
       Dubois  Abdominal surgery  5

Midterm exam 3 (17%)
  a. 21 lectures from Weeks 9-23
    b. Trout  General surgery  5 lectures
       Arroyo & Peregrine  Dermatology  2
       Gomez  Urinary tract disease  2
       Gomez  Respiratory disease  4
       Kenney  Circulatory disorders
       Diseases of the lymphoid system  4
       Gordon  Bovine lameness  4

Final exam (50%)
  a. Comprehensive over the entire course: All 77 lectures from Weeks 1-30
    b. Slightly greater emphasis will be given to new material (15 lectures) from Weeks 27-30.
    c. Winder &  Small ruminant  6 lectures
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

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions
https://www.uoguelph.ca/registrar/calendars/diploma/current/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-regregchg.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.

For Guelph students, information can be found on the SAS website
https://www.uoguelph.ca/sas

For Ridgetown students, information can be found on the Ridgetown SAS website
https://www.ridgetownc.com/services/accessibilityservices.cfm

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

7.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

7.10 Illness

The University will not normally require verification of illness (doctor’s notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.