1 Course Details

1.1 Calendar Description

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. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html).

Pre-Requisite(s): All Phase 2 courses.
Co-Requisite(s): All Phase 3 courses.

1.2 Course Description

Prerequisites for Phase 4 Stream Priority Rotations/Electives

Successful completion (by either Credit or Audit) of certain modules is a prerequisite for some of the stream-priority rotation offerings in the Food Animal Stream in Phase 4. This also applies to students in other streams who take these SPRs as electives. No HM3 module is a pre-requisite for a core rotation although it is strongly recommended that for food animal core rotations, the corresponding module be taken for audit / credit.

Beef Cattle Module Description

The beef cattle module will contribute to students’ achievement of selected Phase 3 health management learning objectives in the context of the cow calf and feedlot industries. The primary emphasis is directed towards developing the 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 implement health management programs.

Who should take this module: This module is intended for those students intending to enter a mixed or food animal practice.

NOTE: This module is a prerequisite (via credit or audit) for the Phase 4 Ruminant Health Management II Beef elective.
Teaching Strategies:
The prime modes of presentation will be lectures and several case-based discussions.

Companion Animals Module Description
The companion animal module will contribute to students’ achievement of selected DVM2000 elements of competency in the context of the maintenance of health of dogs and cats. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to assess and advise on health and performance and evaluate the necessity for, and implement health management programs.

Who should take this module: The student planning on a predominantly small or mixed animal practice career.

Teaching Strategies:
The prime mode of presentation will be lectures supplemented with case discussion and laboratory sessions.

Dairy Module Description
The Dairy Module will contribute to students’ achievement of selected elements of competency in the context of the dairy industry. The primary emphasis is directed towards developing the 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 implement health management programs.

Who should take this module: This module is intended for those students intending to enter a rural (mixed species) or predominately dairy cattle practice.

NOTE: This module is a prerequisite (via credit or audit) for the Phase 4 Dairy electives

Teaching Strategies:
The prime mode of presentation will be lectures and case-based discussions.

Horses Module Description
The horse module will contribute to students’ achievement of selected DVM2000 elements of competency in the context of horse industries. Primary emphasis is directed toward developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to assess and advise on horse production and evaluate the necessity for, and implement health management programs.

Who should take this module: Candidates contemplating entry into full-time horse practice and those entering mixed practices in which a significant component of the caseload involves interaction with horses and the horse industry. NOTE: This module is highly recommended to students considering the Equine Stream in Phase 4.

Teaching Strategies:
The primary mode of presentation will be presentations and interactive discussions with each session focusing on specific, pre-announced topics. Self-study assignments will involve
communication by participants with industry representatives. A summative evaluation will be based on the presentation and discussion material. For purposes of completing self-study assignments, participants self-identifying as having horse industry experience will be paired with those who identify themselves as having little experience.

**Laboratory Animals Module Description**

The Laboratory Animal Medicine Module will contribute to students’ achievement of selected Phase 3 Health Management learning objectives in the context of oversight and care of research animals. The primary emphasis is directed towards developing the skills, knowledge, and attitudes that will permit the entry-level veterinarian to assess and advise on research animal production and performance, and evaluate the necessity for, and implement health management programs.

*Who should take this module:* This module is intended for students interested in gaining a better understanding of the clinical veterinarian’s role in research animal care and health management.

*Teaching Strategies:*

The material will be presented using a combination of lecture, group problem-solving exercises, student presentations, discussions, and research facility visits (University of Guelph).

**Poultry Module Description**

The poultry module will contribute to students’ achievement of selected elements of competency in the context of the poultry industry. The primary emphasis is directed towards developing the 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 implement health management programs.

*Who should take this module:* This module is intended for those students intending to enter a rural (mixed species) or commercial poultry practice (private or industry).

*NOTE:* Successful completion of this module (via credit or audit) is a pre-requisite for the Phase 4 Poultry Health Management rotation.

*Teaching Strategies:*

The material will be presented using a combination of lectures (including guest lecturers and student presentations), discussions, and applied time spent in the post-mortem room and on-farm. Students will raise their own virtual flock of broiler chickens and solve a series of management and disease issues with their flock.

**Small Ruminants Module Description**

The small ruminant module will contribute to students’ achievement of selected Phase 3 health management learning objectives in the context of the sheep and goat industries. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to assess and advise on sheep and goat production and performance and evaluate the necessity for, and implement health management programs.

*Who should take this module:* This module is intended for veterinary students planning to take either the Rural Community Practice or Food Animal streams. Sheep and goats are an
increasingly larger part of the rural large animal practitioner’s caseload. With growing flock / herd sizes and increasing demands on productivity, both industries require educated veterinarians to assist them in maintaining health and improving productivity.

**NOTE:** Successful completion of this module is a prerequisite (via credit or audit) for the Phase 4, RHM II Small Ruminant and RHM II Lambing and Lamb Survival Stream Priority / Elective Rotations.

**Teaching Strategies:**

The prime mode of presentation will be lectures and case based discussions.

**Swine Module Description**

The swine module will contribute to students’ achievement of Phase 3 learning objectives in the context of the swine industry. The primary emphasis is directed towards developing the 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 implement health management programs.

**Who should take this module:** This module is intended for those students intending to enter a mixed to predominately food animal practice.

**NOTE:** This module is not a prerequisite for Phase 4 Swine core rotations but is strongly recommended.

**Teaching Strategies:**

The prime mode of presentation will be based on a case presentation with seminar discussion. Each stage of production will be examined on the basis of production targets and causes of lower than expected performance and strategies for remedying the situation. The overall health management program on the farm will be evaluated at the conclusion of the module.

**Wildlife Module Description**

The Wildlife Health Module will contribute to students’ achievement of selected Phase 3 Health Management learning objectives. The primary emphasis is directed towards developing the skills, knowledge, and attitudes that will permit the entry-level veterinarian to assess and advise on wildlife disease and population health management, as well as recognition of the various roles veterinarians may play in wildlife health management.

**Who should take this module:**

This module is intended for students interested in gaining a better understanding of the veterinarian’s role in wildlife health management. This module will not cover material related to individual-animal wildlife medicine.

**Teaching strategies:**

The material will be presented as a combination of interactive lectures, group-based exercises, student presentations, and discussions.

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

1.4 Final Exam

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

2 Instructional Support

2.1 Instructor(s)

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Small Ruminants

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HEALTH MANAGEMENT: DEFINED

Health management is the promotion of health and prevention of disease in animals within the economic/business framework of the animal owner/industry, while recognizing the issues of animal welfare, human safety and environmental impact.

HEALTH MANAGEMENT: PRINCIPLES

- Promote optimal health.
- Accommodate business/economic realities.
- Promote animal welfare.
- Promote human and food safety.
- Consider potential environmental impact.

HEALTH MANAGEMENT: DELIVERY

Health Management is a dynamic process in which selected management areas of importance to the industry and the animal owner are identified and monitored. Decisions are made and plans are developed and implemented. The outcomes are then measured and evaluated. This
process is called the Health Management Cycle.

4.1 Course Learning Outcomes

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

1. Analyze health and production data accurately and systematically, at the herd/flock/colony level to relevant industry norms (Animal Industries).

2. Building on previous Health Management objectives delivered, be able to recognize when norms in animal husbandry, production and performance are not being met, in the Canadian context and within the context of that production system (Animal Industries).

3. Apply knowledge of the scope, structure and function of the relevant animal industries, including production norms, and inputs and outputs to the analysis of herd/flock/colony problems (Animal Industries).

4. Recognize important zoonotic, environmental and food-borne issues and those Health Management practices that mitigate risk to animals and people (including prudent drug usage) for relevant animal industries (Public Health).

5. Recognize when intervention is required to meet industry, veterinary profession, and legal expectations with respect to the well being of relevant animals as it relates to current Codes of Practice and applicable legislation (Animal Welfare).


7. Explain how the principles of animal welfare for relevant species are incorporated into the development and application of health management programs (Animal Welfare).

8. Recognize, describe and advise on the interaction between the behavioural biology of the relevant animal and the animal management practices common to Canada. Identify and explain the differences between normal, abnormal, and problem behaviour (Animal Behaviour).

9. Identify and explain the differences between normal, abnormal, and problem behaviour (Animal Behaviour).


11. Describe potential factors that may account for deviations from norms of health and production objectives (e.g., management, environmental, behavioral, infectious, genetic, nutritional, and interactions) for the relevant species (Evidence-Based Decision Making in the Promotion of Health and Prevention of Disease).

12. Develop plausible hypotheses and list means to test hypotheses regarding deviations in health and productivity (Evidence-Based Decision Making in the Promotion of Health and Prevention of Disease).

13. Develop differential diagnoses, and identify and recommend appropriate strategies for promotion of health, and prevention and control or eradication of disease to correct deviations

- Strategies may include the following health promotion measures: vaccination, metaphylactic or prophylactic medication, biosecurity, environmental management,
nutritional management, housing and ventilation, nutrient management including
deadstock management (Evidence-Based Decision Making in the Promotion of
Health and Prevention of Disease).

14. Identify the variety of issues that affect the cost of optimizing health and production and
where appropriate profitability (Evidence-Based Decision Making in the Promotion of
Health and Prevention of Disease).

15. Identify key measures that will monitor outcomes or actions taken to correct deviations in
health and productivity at the group level (Evidence-Based Decision Making in the
Promotion of Health and Prevention of Disease).

16. Identify industry/government Health Management programs for individuals or groups that
are available and effectively communicate recommendations to the client (Evidence-Based
Decision Making in the Promotion of Health and Prevention of Disease).

5 Teaching and Learning Activities

Health Management Modules

<table>
<thead>
<tr>
<th>Module</th>
<th>Last Drop/Add Date</th>
<th>Start Date</th>
<th>End Date</th>
<th>Exam Date</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Companion Animal</td>
<td>Aug 22</td>
<td>Sep 5</td>
<td>Sep 21</td>
<td>Sep 24</td>
<td>Gartley</td>
</tr>
<tr>
<td>2 Small Ruminants</td>
<td>Sep 12</td>
<td>Sep 26</td>
<td>Oct 15</td>
<td>Oct 17</td>
<td>Winder</td>
</tr>
<tr>
<td>3 Dairy</td>
<td>Oct 5</td>
<td>Oct 19</td>
<td>Nov 5*</td>
<td>Nov 7</td>
<td>Lissemore</td>
</tr>
<tr>
<td>4 Swine</td>
<td>Oct 22</td>
<td>Nov 5*</td>
<td>Nov 26</td>
<td>Nov 28**</td>
<td>Friendship</td>
</tr>
<tr>
<td>5 Wildlife</td>
<td>Oct 22</td>
<td>Nov 5*</td>
<td>Nov 26</td>
<td>Nov 28**</td>
<td>Jardine</td>
</tr>
<tr>
<td>6 Laboratory Animal</td>
<td>Nov 14</td>
<td>Nov 28**</td>
<td>Dec 12</td>
<td>Dec 14***</td>
<td>Wood</td>
</tr>
<tr>
<td>7 Horses</td>
<td>Dec 14</td>
<td>Jan 11</td>
<td>Jan 30</td>
<td>Feb 1</td>
<td>Kenney</td>
</tr>
<tr>
<td>8 Poultry</td>
<td>Jan 21</td>
<td>Feb 4</td>
<td>Feb 27</td>
<td>Mar 1</td>
<td>Guerin</td>
</tr>
<tr>
<td>9 Beef</td>
<td>Feb 15</td>
<td>Mar 4</td>
<td>Mar 20</td>
<td>Mar 22</td>
<td>Gordon</td>
</tr>
</tbody>
</table>

*The Swine & Wildlife module lecture 1 are on the same day as the Dairy module lecture 8 – Nov 5, 2018

**The Swine & Wildlife exams and the Lab Animal module lecture 1 are on the same day – Nov 28, 2018
**Drop/Add Information**

**Important:**

- A student may either drop or add a module **up to 14 days** in the academic calendar prior to the start of that module (see schedule under Activities with applicable dates). The intent is to allow students whose career choices change over the summer, to adjust their module choices.
- All changes must be submitted to the course coordinator using the provided registration form.
- It is expected that few students will “drop / add” a module(s) after the start of the academic year.

**What is Not Permitted:**

1. A module may **not be dropped or added after the drop/add date has passed**, regardless of whether the student is registered as a Credit or Audit.
2. A module’s **Audit/Credit status may not be changed** after the drop/add date has passed.

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**6 Assessments**

**Use of Turnitin Software**

In this course, some instructors in some modules will be using Turnitin, integrated with the CourseLink Dropbox tool, to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph.

All submitted assignments will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing academic misconduct. In this course, you may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.

**Requirements for Successful Completion of the Course (Credit Modules)**

1. A passing grade of 50% or better in **each of the two modules selected for Credit** is required to pass this course. The final grade in the course will be the simple average of the grades from two modules that the student selected to take for credit.
2. In the case where a student passes one module and fails to achieve a grade of 50% in the other module, the student will receive a grade of 49%.
3. In the case of a student failing both modules, the student will receive a grade of 39%.

Requirements for Successful Completion of an Audit Module

- For successful completion of a module for Audit the student will demonstrate commitment by attendance, participation and successful completion of all assignment(s), assessment(s) and project(s) as detailed in the outline for specific module being taken for audit.
- Module coordinators will determine whether Audit students are required to sit the final examination in that module.

Registering in a Module - Credit or Audit

- Students must register using the registration form provided by the course coordinator, and indicate whether the module is for Credit or Audit.
  - The course coordinator (not the module coordinator) will be the contact for all aspects of the registration process, which will occur before the conclusion of Phase II.
- To attend a given module, a student must be registered in that module at least 14 days prior to its start, either a Credit or Audit status, i.e. “sitting in for interest” will not be permitted.
- Each module is scheduled into 8 sessions of 2 concurrent lecture slots for a total of 16 hours of contact. The examination for that module will take place at 8:00 am on the next module day.
- It is the student’s responsibility and part of expected professional conduct of a student in a professional program to record and know which modules he/she is enrolled in and to attend those modules. Students may register in (Audit) as many modules as their interests permit.
- It is expected that as a student in a professional program, that if signed up for a module he/she will attend and be an engaged learner.

Prerequisites for Phase 4 Stream Priority Rotations/Electives

Successful completion (by either Credit or Audit) of certain modules is a prerequisite for some of the stream-priority rotation offerings in the Food Animal Stream in Phase 4. This also applies to students in other streams who take these stream-priority rotations as electives.

Currently, this stipulation relates to the following Phase 4 rotations (see the individual module descriptions):

RHM II Beef
RHM II Small Ruminants
RHM II Lambing and Lamb Survival
RHM II Dairy

RHM II Dairy Herd Problem Solving
RHM II Dairy Nutrition
Poultry Health Management
No Health Management III module is a pre-requisite for a core rotation although it is strongly recommended that for food animal core rotations, the corresponding module be taken for audit / credit.

6.1 Assessment Details

Assessment (0%)

The assessment and evaluation methods will vary depending on the module. Refer to module outlines on Courselink for details. Each module will have a final one-hour (summative) assessment, which will take place on the next module day after the conclusion of the instructional component of the module.

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 regulations and procedures for Academic Consideration are detailed in the Undergraduate Calendar.

7.3 Drop Date

Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for Dropping Courses are available in the Undergraduate Calendar.

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.
7.6 Academic Misconduct

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 discourages misconduct. 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.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar.

7.7 Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate 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 which apply to undergraduate, graduate and diploma programs.