

Course Outline Form: Fall 2017

General Information

Course Code: ANSC*2340 DE

Course Title: Structure of Farm Animals

Course Description:

This course is an introduction to the carcass structure of cattle, pigs, sheep and poultry. Animal growth and development are considered in relation to meat production. The course is for students intending to major in Animal Science and Animal Biology.

Credit Weight: 0.5 credits

Academic Department (or campus): Animal Biosciences

Campus: Guelph

Semester Offering: Fall 2017 for the DE offering

Class Schedule and Location:

All course materials are presented online with the exception of the final examination

Instructor Information

Instructor Name: Dr. Ira Mandell

Instructor Email: imandell@uoguelph.ca

Office location and office hours: Room 155 ANNU, Ext. 5-3337; office hours are on Tuesdays (4:00 P.M. to 5:00 P.M. or by appointment).

GTA Information

GTA Name: Not applicable; there are no GTA's for this course

GTA Email: Not applicable

GTA office location and office hours: Not applicable

Course Content

Specific Course Learning Outcomes for the course overall:

- 1) Identify the major structures and recognize the function(s) of these structures found in major mammalian and avian systems.
- 2) Explain how muscle contraction and relaxation occurs and the involvement of the nervous system in the processes.
- 3) Describe the conversion of muscle to meat and the factors affecting the process.
- 4) Differentiate the major connective tissues found in animals and how they influence animal function and production, and meat quality.
- 5) Identify animal differences in structure(s) which are responsible for species specific “lifestyles” in regards to digestive, reproductive, and transportation functions.
- 6) Recognize the importance of carcass grading and the factors responsible for differentiating carcass quality.
- 7) Identify the processes involved in the slaughter of meat animals and the rationale behind species differences for dressing the carcass.

Specific Course Learning Outcomes for B.Sc. (Agr) - Animal Science major:

- 8) Integrate knowledge of diverse agricultural animal disciplines and sectors to identify local and global problems and to design solutions for animal production systems, the agricultural animal industry and society at large.
- 9) Develop a set of productive, effective and respectful interpersonal values to work effectively in a team environment which contributes to the advancement of animal agriculture
- 10) Acquire and develop relevant, practical, and theoretical skills based on the needs of the agricultural animal industry to support future employment and / or continued studies (e.g. graduate studies, veterinary medicine and care, professional certification)
- 11) Demonstrate advanced, contemporary and relevant knowledge in animal nutrition, physiology, welfare, genetics and biotechnology
- 12) Apply scientific methods and processes by formulating questions, designing investigations and generating, analyzing and interpreting data to draw conclusions and make evidence based decisions relevant to animal agriculture

Specific Course Learning Outcomes for B.Sc. Honours Major in Animal Biology:

- 13) Acquire and develop relevant practical and theoretical skills to support continued studies (e.g. graduate studies, veterinary medicine, etc.) and/or potential employment (e.g. veterinary care, animal industry, zoological institutions, etc.)
- 14) Interpret current scientific concepts and gaps in knowledge (and methods) in light of the historical development of a chosen discipline.
- 15) Demonstrate knowledge encompassing genetics, nutrition, physiology and behavior and their interactions on the health and welfare of domesticated, companion and wildlife animal species.
- 16) Apply an integrated and broad foundation of life sciences (from molecules to populations) to appreciate and further explore the relationship of animals within society.

Course Content:

Activity	Date	Content
Unit 01	September 7 to 17	Basic concepts of animal structure; Textbook readings: pages 1 to 10. FOR ALL TEXTBOOK READINGS, DO NOT WORRY ABOUT “CLINICAL APPLICATION” SECTIONS Lab 1: Beef Slaughter and Digestive System You will need the following user ID and password ansc2340 and meat2340 for all online labs
Unit 02	September 18 to 24	Organ Systems I: Integument & Digestive Systems Textbook readings: Pages 147 to 169 and 378 to 415 excluding pages listed in Unit 02: Readings and Lab Lab 2: Pork Slaughter And Digestive System
Quiz 1	11:59 PM Sept. 26 to 11:59 PM Sept. 28	On line quiz covering Units 01-02
Unit 03	September 25 to October 1	Organ Systems II: Cardiovascular & Respiratory Systems Textbook readings: pages 338 to 372 and the section on Exchange of Gases in Alveoli (Page 374) excluding pages listed in Unit 03: Readings and Lab Lab 7: Heart, Lungs & Kidney
Unit 04	October 2 to 8	Organ Systems III: Urinary & Reproductive Systems Textbook readings: pages 445 to 461, 469 to 483, and

Activity	Date	Content
		486 to 497 excluding pages listed in Unit 04: Readings and Lab LAB 6: Mammalian Reproductive System
Quiz 2	11:59 PM Oct. 10 to 11:59 PM Oct. 12	On line quiz covering Units 03-04
Unit 05	October 9 to 15	Organ Systems IV: Nervous & Endocrine Systems Textbook readings: pages 226 to 247 and 273 to 280 excluding pages listed in Unit 05: Readings and Lab LAB 5. Teeth, Brain & Nasal Structure
Unit 06	October 16 to 22	Muscle I: Overview of muscle & muscle contraction Textbook readings: pages 210 to 213 and 217 to 223 excluding pages listed in Unit 05: Readings and Lab LAB 3: Sheep & Lamb Slaughter and Meat Inspection
Quiz 3	11:59 PM Oct. 24 to 11:59 PM Oct. 26	On line quiz covering Units 05-06
Unit 07	October 23 to 29	Muscle II: Providing energy to muscle and conversion of muscle to meat Textbook readings: pages 435 to 440 LAB 4: Poultry Dissection
Unit 08	October 30 to November 5	Conversion of muscle meat/meat quality Textbook readings: no reading assignment LAB 8: Forequarter Skeleton and Muscles
Quiz 4	11:59 PM Nov. 7 to 11:59 PM Nov. 9	On line quiz covering Units 07-08
Unit 09	November 6 to 12	Unit 09: Connective Tissue / Adipose Tissue Textbook readings: pages 119 to 129 LAB 9: Hind quarter Skeleton and Muscles
Unit 10	November 13 to 19	Unit 09: Connective Tissue / Adipose Tissue Textbook readings: pages 119 to 129 LAB 10: Poultry Skeleton & Muscles
Unit 11	November 20 to 26	Unit 11: Gene Mutations / Carcass Grading Textbook readings: no reading assignment LAB 11: Egg Structure & Grading
Unit 12	November 27 to December 1	Unit 12: Avian Systems Textbook readings: no reading assignment LAB 12: Looking at Meat
Final Exam	December 11	7:00 to 9:00 PM with location to be announced

Labs:

All lab materials will be accessed on-line and will include written materials from the course website and video presentations. The labs for the individual units are listed in the table above and the Readings and Lab sections for each unit on CourseLink. You can access the video presentations from any personal computer with web access, or for students on campus, at computers in the Forshaw computer lab (ANNU 102) or the library. Students are responsible for the written, video, and audio contents of the labs. CourseLink will be used to provide supplementary lab materials that will be provided over the semester. Unless otherwise stated, students are responsible for learning all materials presented in the video presentations, the accompanying written text, and supplementary materials found on CourseLink.

LINKS to access lab materials

http://www.aps.uoguelph.ca/ANSC*2340/LABS/ or

<http://www.aps.uoguelph.ca/~swatland/HTML10234/LABS/>

The video presentations can be accessed 3 ways using personal computers:

#1: A computer anywhere. The labs can be accessed using home or dorm computers with web access using the links above and the User ID and Password.

User ID: ansc2340

Password: meat2340

The lab videos are in the Window Media Video (WMV) file format, developed by Microsoft.

Due to the wide variety of computers and operating systems used by students, it is the responsibility of individual students to set up their own computer to access the videos. One of our tech support personnel has recommended Google Chrome for viewing the videos.

#2: The Library for students on campus. You can also access the sites from the library. Again, you will need to use the User ID and Password previously stated. Copies can be made for personal study only and the material may not be used for any other purpose except with written permission. When viewing this material in the library, please remember the contents of this course may be very disturbing to sensitive individuals.

#3: The Forshaw computer lab (ANNU 102) for students on campus. You can access the videos on computers in the Forshaw computer lab if the lab is not being used for scheduled courses. Students will need their own earphones if they want to work on their own. Start up a PC by moving the mouse. If it does not start, make sure it is turned on. Log on using the name "students". No password is needed initially. Use Microsoft Explorer. Use the address: "http://www.aps.uoguelph.ca/~swatland/HTML10234/LABS" - this address is case specific (in

other words labs does not exist but LABS does). You will need to use a User ID and Password to gain access to the labs.

Seminars:

Not applicable

Course Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Quiz 1	11:59 PM Sept. 26 to 11:59 PM Sept. 28	12.5% of course mark	1, 5, 7, 8, 10, 11, 13, 15, 16
Quiz 2	11:59 PM Oct. 10 to 11:59 PM Oct. 12	12.5% of course mark	1, 5, 7, 8, 10, 11, 13, 15, 16
Quiz 3	11:59 PM Oct. 24 to 11:59 PM Oct. 26	12.5% of course mark	1, 5, 7, 8, 10, 11, 13, 15, 16
Quiz 4	11:59 PM Nov. 7 to 11:59 PM Nov. 9	12.5% of course mark	1-4, 7, 10, 11, 13, 15, 16
Final Exam	Monday, December 11	50% of course mark	1-8, 10-11, 13, 15-16

Additional Notes (if required):

None.

Final examination date and time:

Monday, December 11 from 7:00 until 9:00 P.M. Room to be arranged.

Final exam weighting:

50% of the final mark for the course

Final Examination regulations are detailed at: [Examination Regulations](#)

Course Resources

Required Texts:

Clinical Anatomy and Physiology for Veterinary Technicians
Thomas Colville and Joanna M. Bassert
3rd Edition 2016
Mosby Elsevier
ISBN: 978-0-323-22793-3

Recommended Texts:

Textbook available on reserve

Lab Manual:

Not applicable

Other Resources:

On-line materials available at:

http://www.aps.uoguelph.ca/ANSC*2340/LABS/ or

<http://www.aps.uoguelph.ca/~swatland/HTML10234/LABS/>

Field Trips:

Not applicable.

Additional Costs:

Students need to cover the cost of the required textbook and the costs of printing out web based lab content.

Course Policies**Grading Policies**

Quiz and Final Exam questions will be based ENTIRELY on the lectures, textbook, and labs. For all quizzes and the Final Exam, there will be questions from the textbook, and each lecture and lab up to the date of the quiz or Final Exam. The format of the quiz or Final Exam. will include multiple choice and short answer questions.

Quizzes are scheduled over a 48-hour period to give students flexibility when they take the quiz. All quizzes last 30 minutes with a 5-minute grace period such that students will have 35 minutes to complete each quiz. The quiz system is set up such that after 35 minutes, the quiz will no longer be available to work on. If the system does allow the question to be answered after time has expired (35 minutes), that answer will not be accepted for credit. Students registered with SAS should check with their counselors to determine if they may require additional time to complete the quizzes. The SAS counselor will have to e-mail I. Mandell to set this up. Students registered with SAS are encouraged to schedule the Final Exam earlier in the day so that Dr. Mandell can visit the SAS Exam Centre and ask students registered with SAS if they have questions.

If a student misses a scheduled quiz or the Final Exam, we reserve the right to change the format of the exam for students. Please note that these policies are binding unless academic consideration is given to an individual student.

Course Policy on Group Work:

Not applicable

Course Policy regarding use of electronic devices and recording of lectures:

Not applicable

University Policies

Academic Consideration:

The University of Guelph is committed to supporting students in their learning experiences and responding to their individual needs and is aware that a variety of situations or events beyond the student's control may affect academic performance. Support is provided to accommodate academic needs in the face of personal difficulties or unforeseen events in the form of Academic Consideration.

Information on regulations and procedures for Academic Consideration, Appeals and Petitions, including categories, grounds, timelines and appeals can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

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.

Detailed information regarding the Academic Misconduct policy is available in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).

Accessibility:

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibility Services (SAS), formerly Centre for Students with Disabilities (CSD), as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or visit the [Student Accessibility Services website \(http://www.uoguelph.ca/csd/\)](http://www.uoguelph.ca/csd/).

Course Evaluation Information:

End of semester course and instructor evaluations provide students the opportunity to have their comments and opinions used as an important component in the Faculty Tenure and Promotion process, and as valuable feedback to help instructors enhance the quality of their teaching effectiveness and course delivery.

While many course evaluations are conducted in class others are now conducted online. Please refer to the [Course and Instructor Evaluation Website](#) for more information.

Drop period:

The drop period for single semester courses starts at the beginning of the add period and extends to the Fortieth (40th) class day of the current semester (the last date to drop a single semester courses without academic penalty) which is listed in [Section III \(Schedule of Dates\) of the Undergraduate Calendar](#).

The drop period for two semester courses starts at the beginning of the add period in the first semester and extends to the last day of the add period in the second semester.

The last date to drop one-semester courses, without academic penalty, is November 3, 2017
Information about Dropping Courses can be found in [Section VIII \(Undergraduate Degree Regulations and Procedures\) of the Undergraduate Calendar](#).