

ANSC*2340 Structure of Farm Animals

Fall 2019

Section: DE

Department of Animal Biosciences Credit Weight: 0.50

Course Details

Calendar 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, Animal Biology, and Honours Agriculture.

Pre-Requisite(s): BIOL*1040 or (2 of BIOL*1050, BIOL*1070, BIOL*1080, BIOL*1090)

Co-Requisite(s): None Restriction(s): None

Method of Delivery: Online

Final Exam

Date: TBA Time: TBA

Location: On campus

Instructional Support

Instructor

Ira Mandell

Email: imandell@uoguelph.ca

Telephone: (519) 824-4120 Ext. 53337

Office: Animal Science and Nutrition (ANNU), Room 154

Dr. Ira Mandell is an Associate Professor in the Department of Animal & Poultry Science with degrees from Ohio State University and the University of Saskatchewan. While originally trained as a Beef Cattle Nutritionist, Dr. Mandell conducts research in beef cattle nutrition and production (cow-calf and feedlot), and meat science (beef, pork, lamb). Dr. Mandell examines how meat quality can be affected by nutrition and management on-farm, antemortem handling, and postmortem processing. His research also investigates how animal feeding can influence nutrient composition of meat.

Learning Resources

Required Textbook

Title: Clinical Anatomy and Physiology for Veterinary Technicians

Author(s): Thomas Colville and Joanna M. Bassert

Edition / Year: 3rd Edition, 2016 **Publisher:** Mosby Elsevier **ISBN:** 978-0323227933

You may purchase the textbook at the <u>Guelph Campus Co-op Bookstore</u> or the <u>University of Guelph Bookstore</u>. Please note that DE textbooks are located in the Distance Education section of the University of Guelph Bookstore.

https://guelphcampus.coop/bookstore

http://www.bookstore.uoguelph.ca/

Course Website

<u>CourseLink</u> (powered by D2L's Brightspace) is the course website and will act as your classroom. It is recommended that you log in to your course website every day to check for announcements, access course materials, and review the weekly schedule and assignment requirements.

https://courselink.uoguelph.ca/shared/login/login.html

Ares

For this course, you will be required to access course reserve materials through the University of Guelph McLaughlin Library. To access these items, select **Ares** on the navbar in CourseLink. Note that you will need your Central Login ID and password in order to access items on reserve.

For further instructions on accessing reserve resources, visit <u>How to Get Course Reserve</u> <u>Materials</u>.

If at any point during the course you have difficulty accessing reserve materials, please contact the e-Learning Operations and Reserve Services staff at:

Tel: <u>519-824-4120 ext. 53621</u> Email: <u>libres2@uoguelph.ca</u>

Location: McLaughlin Library, First Floor, University of Guelph

http://www.lib.uoguelph.ca/find/find-type-resource/course-reserves-ares/how-get-course-

reserve-material

Learning Outcomes

Course Learning Outcomes

For many students in the B.Sc. Animal Biology and B.Sc. Agr. Programs, previous exposure to the major food animal production species has been limited. ANSC* 2340 examines the major tissues and anatomical structures found in the major food animal production species and relates them to functions in the whole animal or in specific organ systems. This course also covers the conversion of muscle to meat, meat quality, and carcass grading, topics which will not be covered to any great extent in the rest of the Animal Biology, Animal Science, and Honours Agriculture curriculums.

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

- 1. Describe primary animal structures in food animal production species and describe their location in the animal body
- 2. Outline the domestication of the major food animal production species
- 3. Explain major structural components of organ systems for food animal production species
- 4. Explain the process of muscle contraction and relaxation
- 5. Discuss how muscle is converted to meat after death
- 6. Explain factors affecting meat quality
- 7. Analyze the slaughter procedures for the major food animal production species
- 8. Identify major muscles in the primary cuts of meat
- 9. Identify major bones in food animal production speciesDescribe (Discuss) the organization of bone and bone formation;

Teaching and Learning Activities

Method of Learning

While many of the activities listed in the Units are not graded, they are fair game for online quiz and final exam questions. You would be well advised to complete them and, when warranted, discuss with your classmates in the Discussion area.

Many smaller interactive activities have been set up in the Units containing Professor's Notes to assist you in learning the material.

The Labs will demonstrate some of the processes involved in meat production and illustrate much about basic farm animal structure. There are activities and assessments associated with the labs. These are described in the Activities and Assessments section for each pair of labs. For example, Labs 01 and 02 have an corresponding Activities and Assessment section. The activities are designed to help prepare you for the Assessment, which is a Lab Analysis discussion.

Course Structure

Unit 01: Basic Concepts of Animal Structure

Unit 02: Organ Systems I

Unit 03: Organ Systems II

Unit 04: Organ Systems III

Unit 05: Organ Systems IV

Unit 06: Muscle I

Unit 07: Muscle II

Unit 08: Conversion of Muscle to Meat/Meat Quality

Unit 09: Connective Tissue/Adipose Tissue

Unit 10: Bone

Unit 11: Gene Mutations/Carcass Grading

Unit 12: Avian Systems

Labs

- Lab 01 Beef Slaughter
- Lab 02 Pig Slaughter
- Lab 01 and 02 Activities and Assessments
- Lab 03 Sheep Slaughter
- Lab 04 Poultry Slaughter
- Lab 03 and 04 Activities and Assessments
- Lab 05 Forequarter muscles & skeleton
- Lab 06 Hindquarter muscles & skeleton
- Lab 05 and 06 Activities and Assessments

What to Expect for Each Unit and the Labs

Units

Each unit consists of 3 long scrolling pages. On the Introduction page you will find a general overview of the unit and the unit learning outcomes. The Commentary page contain the instructor's note as they relate to the unit's learning outcomes. The Activities pages provides you with opportunities to further explore key unit concepts.

Labs and Labs Activities and Assessments

In this course there are 6 labs that focus on either an animal or a part of the meat preparation process. These labs provide more in-depth coverage of key course concepts. Labs are paired with opportunities to practice key concepts (i.e. individual activities that do not count for a mark but help prepare you for assessments). They also contain the discussion prompt for the Lab Analysis discussion that will take place at time specified in the outline. These lab analysis discussions require you to work in small groups to apply course concepts in varied contexts.

Schedule

Unit 01: Basic Concepts of Animal Structure

Week 1 - Thursday, September 5 to Sunday, September 15

Readings

• Website: Unit 01 Content

Activities

- Familiarize yourself with the course website by reviewing the Start Here section of the course.
- Review the **Outline** and **Assessments** sections on the course website to learn about course expectations, assessments, and due dates.
- Complete Introductions discussion (see Introduction Discussion in **Discussion** for more details)
- Complete Lab 01

Unit 02: Organ Systems I

Week 2 - Monday, September 16 to Sunday, September 22

Readings

Website: Unit 02 Content

Activities

Complete Lab 02

Assessments

 Lab Analysis #1 (for Labs 01 and 02 Activities and Assessments) to be completed by Sunday, September 22 at 11:59 pm ET

Unit 03: Organ Systems II

Week 3 – Monday, September 23 to Sunday, September 29

Readings

Website: Unit 03 Content

Assessments

Quiz 1

Opens: Tuesday, September 24 at 11:59 pm ET Closes: Thursday, September 26 at 11:59 pm ET

Unit 04: Organ Systems III

Week 4 - Monday, September 30 to Sunday, October 6

Readings

• Website: Unit 04 Content

Activities

• Complete Lab 03

Unit 05: Organ Systems IV

Week 5 - Monday, October 7 to Sunday, October 13

Readings

Website: Unit 05 Content

Assessments

Quiz 2

Opens: Tuesday, October 8 at 11:59 pm ET Closes: Thursday, October 10 at 11:59 pm ET

Unit 06: Muscle I

Week 6 – Monday, October 14 to Sunday, October 20

Readings

Website: Unit 06 Content

Activities

• Complete Lab 04

Assessments

 Lab Analysis #2 (for Labs 03 and 04 Activities and Assessments) to be completed by Sunday, October 20 at 11:59 pm ET

Unit 07: Muscle II

Week 7 – Monday, October 21 to Sunday, October 27

Readings

Website: Unit 07 Content

Assessments

• Quiz 3

Opens: Tuesday, October 22 at 11:59 pm ET Closes: Thursday, October 24 at 11:59 pm ET

Unit 08: Conversion of Muscle to Meat/Meat Quality

Week 8 – Monday, October 28 to Sunday, November 3

Readings

Website: Unit 08 Content

Activities

• Complete Lab 05

Unit 09: Connective Tissue/Adipose Tissue

Week 9 - Monday, November 4 to Sunday, November 10

Readings

Website: Unit 09 Content

Assessments

• Quiz 4

Opens: Tuesday, November 5 at 11:59 pm ET Closes: Thursday, November 7 at 11:59 pm ET

Unit 10: Bone

Week 10 - Monday, November 11 to Sunday, November 17

Readings

Website: Unit 10 Content

Activities

• Complete Lab 06

Assessments

 Lab Analysis #3 (for Labs 05 and 06 Activities and Assessments) to be completed by Sunday, November 17 at 11:59 pm ET

Unit 11: Gene Mutations/Carcass Grading

Week 11 - Monday, November 18 to Sunday, November 24

Readings

• Website: Unit 11 Content

Unit 12: Avian Systems

Week 12 Monday, November 25 to Friday, November 29

Readings

Website: Unit 12 Content

Assessment

The grade determination for this course is indicated in the following table. A brief description of each assessment is provided below. Select **Content** on the navbar to locate **Assessments** in the table of contents panel to review further details of each assessment. Due dates can be found under the Schedule heading of this outline.

Table 1: Course Assessment

Assessment Item	Weight
Quizzes (4 @ 7.5% each)	30%
Lab Analysis (Discussion)	30%
Final Exam	40%
Total	100%

Assessment Descriptions

Online Quizzes

There will be 4 online quizzes to complete via the **Quizzes** tool. Each quiz will consist of multiple choice and short answer questions and you will have a total of 35 minutes to complete the quiz (includes a 30 minute time limit along with a 5 minute grace period before the the quiz is flagged for exceeding the entire 35 minutes). Quiz 1 will cover material from Units 01 and 02, Quiz 2 will cover material from Units 03 and 04, Quiz 3 will cover material from Units 05 and 06, and Quiz 4 will cover material from Units 07 and 08.

Lab Analysis (Discussion)

In the Activities and Assessments section, there are practice activities designed to help prepare you for the Lab Analysis discussion questions. The activities **do not** count for any marks and they are an individual exercise.

At the end of each Activities and Assessments section there is an Assessment section that contains the Lab Analysis discussion questions that you must address for the associated labs. These questions **do** count for a mark. Each of the 3 assessment sections are worth 10% of the final mark for the course (a total of 30% of the final marks for the course).

These Activities and Assessments sections require you to respond to different topic questions/exercises. This experience provides you with the opportunity to share the knowledge you gained in the course and to engage in a dialogue with your classmates.

Final Exam

This course requires you to write a traditional sit-down final exam. Final exams are written on campus at the University of Guelph or at alternate locations for students at a distance. The final exam will be comprehensive. Approximately 75% of the questions will be derived from Units 09-12 and 25% on Units 01-08). It will consist of multiple choice and short answer questions.

It is assumed that all DE students will be writing their final examination on campus at the University of Guelph. University of Guelph degree and associate diploma students must check WebAdvisor for their examination schedule. Open Learning program students must check the Open Learning Program Final Examination Schedule for their examination schedule.

If you are studying at a distance, you can request to write your final exam at an alternate location. It is recommended that you make arrangements as early as possible in the semester since changes cannot be guaranteed after the deadline. Exam schedules for off-campus exams will be emailed by Week 9 of the course. For more information, please visit Final Exams.

https://webadvisor.uoguelph.ca

http://opened.uoguelph.ca/student-resources/Open-Learning-Program-Final-Exam-Schedule http://opened.uoguelph.ca/student-resources/final-exams

Course Technologies and Technical Support

CourseLink System Requirements

You are responsible for ensuring that your computer system meets the necessary <u>system</u> <u>requirements</u>. Use the <u>browser check</u> tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window).

http://spaces.uoguelph.ca/ed/system-requirements/

https://courselink.uoguelph.ca/d2l/systemCheck

Technical Skills

As part of your online experience, you are expected to use a variety of technology as part of your learning:

- Manage files and folders on your computer (e.g., save, name, copy, backup, rename, delete, and check properties);
- Install software, security, and virus protection;
- Use office applications (e.g., Word, PowerPoint, Excel, or similar) to create documents;
- Be comfortable uploading and downloading saved files;

- Communicate using email (e.g., create, receive, reply, print, send, and download attachments);
- Navigate the CourseLink learning environment (the instructions for this are given in your course);
- Communicate using a discussion board (e.g., read, search, post, reply, follow threads) in the CourseLink website;
- Upload assignments using the **Dropbox** tool in the CourseLink website;
- Access, navigate, and search the Internet using a web browser (e.g., Firefox, Internet Explorer); and
- Perform online research using various search engines (e.g., Google) and library databases.

Course Technologies

CourseLink

Distance Education courses are offered entirely online using CourseLink (powered by D2L's Brightspace), the University of Guelph's online learning management system (LMS). By using this service, you agree to comply with the <u>University of Guelph's Access and Privacy Guidelines</u>. Please visit the D2L website to review the <u>Brightspace privacy statement</u> and <u>Brightspace Learning Environment web accessibility standards</u>.

http://www.uoguelph.ca/web/privacy/

https://www.d2l.com/legal/privacy/

https://www.d2l.com/accessibility/standards/

Technical Support

If you need any assistance with the software tools or the CourseLink website, contact CourseLink Support.

CourseLink Support

University of Guelph Day Hall, Room 211

Email: courselink@uoguelph.ca
Tel: 519-824-4120 ext. 56939

Toll-Free (CAN/USA): 1-866-275-1478

Walk-In Hours (Eastern Time):

Monday thru Friday: 8:30 am-4:30 pm

Phone/Email Hours (Eastern Time): Monday thru Friday: 8:30 am–8:30 pm

Saturday: 10:00 am-4:00 pm Sunday: 12:00 pm-6:00 pm

Course Specific Standard Statements

Acceptable Use

The University of Guelph has an <u>Acceptable Use Policy</u>, which you are expected to adhere to. https://www.uoguelph.ca/ccs/infosec/aup

Communicating with Your Instructor

During the course, your instructor will interact with you on various course matters on the course website using the following ways of communication:

- Announcements: The instructor will use Announcements on the Course Home page
 to provide you with course reminders and updates. Please check this section frequently
 for course updates from your instructor.
- Ask Your Instructor Discussion: Use this discussion forum to ask questions of your instructor about content or course-related issues with which you are unfamiliar. If you encounter difficulties, the instructor is here to help you. Please post general course-related questions to the discussion forum so that all students have an opportunity to review the response. To access this discussion forum, select Discussions from the Tools dropdown menu.
- **Email:** If you have a conflict that prevents you from completing course requirements, or have a question concerning a personal matter, you can send your instructor a private message by email. The instructor will respond to your email within 48 hours.
- **Skype:** If you have a complex question you would like to discuss with your instructor, you may book a Skype meeting. Skype meetings depend on the availability of you and the instructor, and are booked on a first come first served basis.

Netiquette Expectations

For distance education courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students;
- Using obscene or offensive language online;
- Copying or presenting someone else's work as your own;
- Adapting information from the Internet without using proper citations or references;
- Buying or selling term papers or assignments;
- Posting or selling course materials to course notes websites;
- Having someone else complete your guiz or completing a guiz for/with another student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student or instructor online;

- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
- Attempting to compromise the security or functionality of the learning management system; and
- Sharing your username and password.

Late Policy

Extensions will be considered for medical reasons or other extenuating circumstances. If you require an extension, discuss this with the instructor as soon as possible and well before the due date. Barring exceptional circumstances, extensions will not be granted once the due date has passed. These rules are not designed to be arbitrary, nor are they inflexible. They are designed to keep you organized, to ensure that all students have the same amount of time to work on assignments, and to help to return marked materials to you in the shortest possible time.

Obtaining Grades and Feedback

Unofficial assessment marks will be available in the Grades tool of the course website.

Once your assignments are marked you can view your grades on the course website by selecting **Grades** from the **Tools** dropdown menu on the navbar. Your course will remain open to you for seven days following the last day of the final exam period.

University of Guelph degree students can access their final grade by logging into WebAdvisor (using your U of G central ID). Open Learning program students should log in to the OpenEd Student Portal to view their final grade (using the same username and password you have been using for your courses).

https://webadvisor.uoguelph.ca

https://courses.opened.uoguelph.ca/portal/logon.do?method=load

Rights and Responsibilities When Learning Online

For distance education (DE) courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

For more information on your rights and responsibilities when learning in the online environment, visit Rights and Responsibilities.

http://opened.uoguelph.ca/student-resources/rights-and-responsibilities

University Standard Statements

University of Guelph: Undergraduate Policies

As a student of the University of Guelph, it is important for you to understand your rights and responsibilities and the academic rules and regulations that you must abide by.

If you are a registered **University of Guelph Degree Student**, consult the <u>Undergraduate</u> <u>Calendar</u> for the rules, regulations, curricula, programs and fees for current and previous academic years.

If you are an **Open Learning Program Student**, consult the <u>Open Learning Program Calendar</u> for information about University of Guelph administrative policies, procedures and services.

https://www.uoguelph.ca/registrar/calendars/undergraduate/current/

http://opened.uoguelph.ca/student-resources/open-learning-program-calendar

Email Communication

University of Guelph Degree Students

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

Open Learning Program Students

Check your email account (the account you provided upon registration) regularly for important communications, as this is the primary conduit by which the Open Learning and Educational Support will notify you of events, deadlines, announcements or any other official information.

When You Cannot Meet Course Requirements

When you find yourself unable to meet an in-course requirement due to illness or compassionate reasons, please advise your course instructor **in writing**, with your name, ID number and email contact.

University of Guelph Degree Students

Consult the <u>Undergraduate Calendar</u> for information on regulations and procedures for Academic Consideration.

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

Open Learning Program Students

Please refer to the <u>Open Learning Program Calendar</u> for information on regulations and procedures for requesting Academic Consideration.

http://opened.uoguelph.ca/student-resources/open-learning-program-calendar

Drop Date

University of Guelph Degree Students

Students will have until the last day of classes to drop courses without academic penalty. Review the Undergraduate Calendar for regulations and procedures for Dropping Courses.

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

Open Learning Program Students

Please refer to the Open Learning Program Calendar.

http://opened.uoguelph.ca/student-resources/open-learning-program-calendar

Copies of Assignments

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

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.

University of Guelph Degree Students

Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Accessibility Services as soon as possible.

For more information, contact Accessibility Services at 519-824-4120 ext. 56208, <u>email Accessibility Services</u> or visit the <u>Accessibility Services website</u>.

accessibility@uoguelph.ca

https://wellness.uoguelph.ca/accessibility/

Open Learning Program Students

If you are an Open Learning program student who requires academic accommodation, please contact the Academic Assistant to the Director. Please ensure that you contact us before the end of the first week of your course (every semester) in order to avoid any delays in support. Documentation from a health professional is required for all academic accommodations. Please note that all information provided will be held in confidence.

If you require textbooks produced in an alternate format (e.g., DAISY, Braille, large print or eText), please contact the Academic Assistant to the Director at least two months prior to the course start date. If contact is not made within the suggested time frame, support may be delayed. It is recommended that you refer to the course outline before beginning your course in order to determine the required readings.

The provision of academic accommodation is a shared responsibility between OpenEd and the student requesting accommodation. It is recognized that academic accommodations are intended to "level the playing field" for students with disabilities.

jessica.martin@uoguelph.ca

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.

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

Copyright Notice

Content within this course is copyright protected. Third party copyrighted materials (such as book chapters and articles) have either been licensed for use in this course, or have been copied under an exception or limitation in Canadian Copyright law.

The fair dealing exemption in Canada's Copyright Act permits students to reproduce short excerpts from copyright-protected materials for purposes such as research, education, private study, criticism and review, with proper attribution. Any other copying, communicating, or distribution of any content provided in this course, except as permitted by law, may be an infringement of copyright if done without proper license or the consent of the copyright owner. Examples of infringing uses of copyrighted works would include uploading materials to a commercial third party web site, or making paper or electronic reproductions of all, or a substantial part, of works such as textbooks for commercial purposes.

Students who upload to CourseLink copyrighted materials such as book chapters, journal articles, or materials taken from the Internet, must ensure that they comply with Canadian Copyright law or with the terms of the University's electronic resource licenses.

For more information about students' rights and obligations with respect to copyrighted works, review <u>Fair Dealing Guidance for Students</u>.

http://www.lib.uoguelph.ca/sites/default/files/fair_dealing_policy_0.pdf

Plagiarism Detection Software

Students should be aware that faculty have the right to use software to aid in the detection of plagiarism or copying and to examine students orally on submitted work. For students found guilty of academic misconduct, serious penalties, up to and including suspension or expulsion from the University can be imposed.

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.