

ANS 6636 Meat Technology (3 Cr) – Fall 2025

Course Instructors

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Time & Location

MWF 9:35 – 10:25 am (3rd period)
Dairy Science Building (#499), Room 201

Course Description & Objectives

Chemistry, physics, histology, bacteriology, and engineering involved in the handling, processing, manufacturing, preservation, storage, distribution, and utilization of meat.

Goals:

Gain a better understanding and appreciation for

- ✓ Muscle components, their function, and manipulation during live animal growth
- ✓ Metabolic conversion of muscle to meat and factors affecting meat quality
- ✓ The microbial populations that impact food safety and security

Prerequisites

The student should have completed undergraduate coursework in biochemistry, biology, chemistry, and microbiology.

Course website on Canvas

Our course Canvas website (login via <https://elearning.ufl.edu/>) will contain the syllabus, resources, and lesson material, provided as *PowerPoint* and *pdf* files.

Assessments

Students will be evaluated based on their performance on exams, literature review, and presentation.

Table 1. Assessment types and points

Assessment type	Number per semester	Points for each	Total points per assessment type	% of overall grade
Exam	4	100	400	80
Literature review	1	50	50	10
Presentation	1	50	50	10
Total			500	100%

Exams are not cumulative. There is no final exam.

Guidelines for literature review and presentation:

- Student can select any topic related to meat technology but it is recommended to discuss with your major advisor
- Student needs to inform the lead instructor (T. Scheffler) of their topic by Sept. 5th.
- The literature review should follow the format for a review paper in a scientific journal
- Due date for the literature review: Monday, Dec. 1st
- Student will present their literature review to class (15-20 minute presentation, followed by questions)
- Grades will be determined by instructors based on quality and content.

Assessment schedule

Important dates for assessments and assignments

Assessment	Date
Exam 1	W 9/17
Exam 2	M 10/13
Exam 3	W 11/5
Exam 4 (take home)	Due M 11/24
Literature review topic	F 9/5
Literature review due	M 12/1
Student presentations	M 12/1 & W 12/3

Grades and Grading Policy

Grades are based on performance in the assessments (exams and quizzes). Grade assignment and corresponding percentage and point ranges are shown in **Table 3**.

Table 3: Grade assignment and point range

Grade	% score range	Point range
A	93.0 – 100.0	≥ 465
A-	90.0 – 92.99	450 – 464
B+	87.0 – 89.99	435 – 449
B	83.0 – 86.99	415 – 434
B-	80.0 – 82.99	400 – 414
C+	77.0 – 79.99	385 – 399
C	73.0 – 76.99	365 – 384
C-	70.0 – 72.99	350 – 364
D+	67.0 – 69.99	335 – 349
D	63.0 – 66.99	315 – 334
D-	60.0 – 62.99	300 – 314
E	≤ 59.99	< 300

Attendance and Zoom meeting

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Attendance is not required nor will it be recorded. However, it is highly recommended that you attend class in person. The zoom meeting link is intended for those that are not on the Gainesville campus. In the event that an instructor or student cannot meet in person (e.g., due to illness), zoom may be used.

Zoom meeting ID: 985 9949 9966 (password 6636)

<https://ufl.zoom.us/j/98599499966?pwd=Hax04NAPPH7bdEjH5sA0mOV0aHWadr.1>

Missing an assessment

An exam may not be missed without an excused absence or prior consent of the instructor. All requests to miss an assessment must be submitted in writing and signed by the student regardless of the reason. Any assessment missed for reasons other than those listed below or as outlined in the [UF attendance policy](#) will not be excused and a grade of zero will be recorded. **No make-up exams will be granted without a valid excuse.**

Course topics

Lecture Schedule*

Date	Topic	Instructor
	Muscle overview, structure	
F 8/22	Course introduction / overview	All
M 8/25	Muscle design and structure	T Scheffler
W 8/27	Muscle design and structure	T Scheffler
F 8/29	Microanatomy	T Scheffler
M 9/1	No class – Labor Day	
W 9/3	Microanatomy	J Scheffler
F 9/5	Contraction	J Scheffler
M 9/8	Contraction	J Scheffler
W 9/10	Muscle development	J Scheffler
F 9/12	Muscle development	J Scheffler
M 9/15	Muscle growth and protein turnover	T Scheffler
W 9/17	Exam 1	
	Muscle fiber type and meat quality development	
F 9/19	Growth promotants	T Scheffler
M 9/22	Muscle fiber type and metabolism	T Scheffler
W 9/24	Muscle fiber type and metabolism	T Scheffler
F 9/26	Conversion of muscle to meat	T Scheffler
M 9/29	Conversion of muscle to meat	T Scheffler
W 10/1	Other postmortem changes	T Scheffler
F 10/3	Fresh meat quality properties	T Scheffler
M 10/6	No class – ANS Graduate symposium	
W 10/8	Genetic aberrations and meat quality	T Scheffler
F 10/10	Meat palatability and flavor	T Scheffler
M 10/13	Exam 2	
	Preharvest Food safety and one health approach	
W 10/15	Overview of food safety	Jeong
F 10/17	No class- Homecoming	
M 10/20	Overview of meat safety/pre-harvest food safety	Jeong
W 10/22	Bacterial pathogens/virulence factors	Jeong
F 10/24	Bacterial pathogens/virulence factors	Jeong
M 10/27	Current topics in meat safety - antibiotics	Jeong
W 10/29	Current topics in meat safety - antibiotics	Jeong
F 10/31	Source tracking	Jeong
M 11/3	One health concept for animal and public health	Jeong
W 11/5	Exam 3	

Meat processing, ingredients, and microbiology

M 11/10	Meat processing ingredients	T Scheffler
W 11/12	Food microbiology: intrinsic factors	J Scheffler
F 11/14	Food microbiology: extrinsic factors	J Scheffler
M 11/17	Food microbiology: packaging and shelf life	J Scheffler
W 11/19	HACCP	J Scheffler
F 11/21	Current topics in food safety / Exam 4 assigned	J Scheffler
M 11/24	No class (Thanksgiving)	--
W 11/26	No class (Thanksgiving)	--
F 11/28	No class (Thanksgiving)	--
M 12/1	Student presentations	All
W 12/3	Student presentations	All

*Topics are tentative. The schedule may change depending on instructor and guest lecturer availability.

Other important information**Technology requirements**

Computer requirements for this course are consistent with UF policy for student computing requirements, and likely similar to your other classes:

<https://it.ufl.edu/policies/studentcomputing-requirements/>

This course uses Canvas for providing course content. Please see links below for further information regarding privacy and accessibility of Canvas:

- Canvas (Infrastructure) privacy policy: <https://www.instructure.com/policies/privacy>
- Canvas (Infrastructure) accessibility statement: <https://www.instructure.com/canvas/accessibility>

Canvas Technology Requirements

Computers, Internet, and Web browsers: Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser. It is recommended to use a computer less than five years old with at least 1GB of RAM. It is recommended to have a minimum Internet speed of 512kbps. It is **strongly recommended** to not use a wireless connection, phone, tablet, or notepad for critical course tasks such as exams and discussions.

Canvas currently supports the following browsers: Chrome, Safari, Firefox, Edge. Canvas supports the last two versions of most browsers. It is **highly recommend** updating to the **newest version** of whatever browser you are using. Note that your computer's operating system may affect browser function. Failure to use one of these browsers will cause problems.

For more information on approved computers and browsers please visit:

<https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66>

On this web page there is an area titled "Is My Browser up to Date?" Use it to check each computer and browser you may use in this course. There is another important area on "Browser Privacy Settings." Read the section(s) for any browser intended for use. For example, **Note that:** In browsers such as Safari, insecure content

will never be displayed in the browser. Return to the page to check for updates on technology issues in Canvas.

Technical Support

If you encounter technical difficulties in this course, **contact the UF Computing Help Desk** right away to troubleshoot. <https://helpdesk.ufl.edu/> or (352) 392-HELP. If the problem cannot be fixed immediately, notify your instructor, and provide them with the Help Desk ticket number.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Academic Policies and Resources

Academic policies for this course are consistent with university policies. Please see <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/> for further information including:

- Class attendance
- Students with disabilities, learning barriers; and to request academic accommodations
- UF grading policies and grade points
- Course feedback
- University's Honesty Policy regarding cheating, plagiarism, etc.
- In-class recording
- Academic resources, such as e-learning technical support, library resources, etc.

Campus health & wellness resources

Visit <https://one.ufl.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact [UMatterWeCare](#) for additional and immediate support.