

ANS 3634C – Meats

Fall 2024

3 credit hours

Course description: Integrated studies of the science and technology involved in the utilization of meat animals for food with focus on animal growth, carcass cutability, wholesomeness, palatability, and merchandising of red meat.

Instructor:

Chad Carr, PhD

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Office hours: open door policy, but make an appointment to guarantee availability

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Teaching Assistant:

Thachary Mayer

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Lecture: Tuesday & Thursday, Period 1 (8:30 – 9:20 am) Animal Science Building, Room 156

Lab: Thursday, Period 5 & 6 (11:45-1:40; section 10324) Animal Science Building, Room 151

Test 3: 12/08/2025 @ 3:00 PM - 5:00 PM

Course objectives:

Upon completing this course, students should be able to:

1. Describe the principles of meat inspection, microbiology, and food safety programs
2. Describe anatomy of carcasses and major tissues, and their significance to meat merchandizing and utilization
3. Explain muscle function and the biochemical processes involved in the conversion of muscle to meat
4. Explain ante- and postmortem handling factors that influence meat quality characteristics and palatability
5. Describe steps and principles involved in slaughter of meat animals, and in particular, their relation to animal welfare, food safety, and meat quality
6. Explain principles of carcass fabrication and identify wholesale and retail cuts
7. Discuss breeding, nutritional, and other management practices that impact carcass composition and quality

Course Website

The Canvas website will contain the syllabus, class notes, and resources such as readings and lessons. Class notification emails will be sent via the course website.

Course Grading:

Lecture exams:

1. October 2
2. November 6

Lab quizzes:

1. September 18
2. October 23

Lab quiz + Test 3- 12/09/2024 @ 3:00 PM - 5:00 PM

Grades will be based on:

Laboratory	Pts	Lecture	Pts
Quiz 1	75	Exam 1	150
Quiz 2	75	Exam 2	150
Lab worksheets- 14	50	Exam 3	150
		Class attendance	50
Total points (lab + lecture) = 700			

Attendance will be taken on at least 20 days, worth up to 50 total points. You will not be able to receive more than 50 points for attendance. Completion of each week's lab assignment will be worth 3.6 points each. All lab reports should be uploaded to Canvas by the Tuesday following lab at noon.

Grades determined as follows (based on % of total possible points):

A	90 & Above
B+	85 – 89.99
B	80 – 84.99
C+	75 – 79.99
C	70 – 74.99
D+	65 – 69.99
D	60 - 64.99
F	59.99 & Below

Course grading:

More information on the university wide grading policy can be accessed at: [UF grading policies.](#)

Lecture Schedule

Th	8-21	Course overview/ Global meat supply chain
T	8-26	Meat inspection overview- Food Safety System/HACCP
Th	8-28	Slaughter inspection
T	9-2	Microbiology
Th	9-4	Food safety interventions
T	9-9	Producer / packer problems
Th	9-11	Carcass components & growth
T	9-16	Carcass components & growth
Th	9-18	Muscle structure
T	9-23	Muscle structure & function
Th	9-25	Muscle contraction
T	9-30	Muscle contraction & energy
Th	10-2	Exam 1
T	10-7	Conversion of muscle to meat – rigor
Th	10-9	Conversion of muscle to meat – defects
T	10-14	Fiber types
Th	10-16	Antemortem factors affecting quality, yield, and palatability- Tenderness juiciness, WHC, flavor
T	10-21	Antemortem factors affecting quality, yield, and palatability
Th	10-23	Postmortem factors affecting quality, yield, and palatability Fat quality oxidation
T	10-28	Postmortem factors affecting quality, yield, and palatability
Th	10-30	Postmortem factors affecting quality, yield, and palatability
T	11-4	Quantifying quality
Th	11-6	Exam 2
T	11-11	No Class Veterans Day
Th	11-13	Meat processing
T	11-18	Meat processing
Th	11-20	Sustainability
T	11-26	THANKSGIVING – No class
Th	11-28	THANKSGIVING – No class
T	12-2	Meat treat day/ Course wrap up
		12/08/2025 @ 3:00 PM - 5:00 PM

Lab Schedule

Lab	Date	Subject
1	8-21	Meat lab tour & food safety
2	8-28	Beef Slaughter/ Slaughter Yields
3	9-4	Anatomy
4	9-11	Pig slaughter
5	9-18	(Quiz 1) Pork carcass fabrication
6	9-25	Beef forequarter
7	10-2	Beef hindquarter
8	10-9	Lamb slaughter (ANGUILLA)
9	10-16	Lamb fabrication
10	10-23	(Quiz 2) Cutability
11	10-30	Processing
12	11-6	Retail Experience
13	11-13	Sensory and Cooking
14	11-20	Processed meat eating
15	11-27	Thanksgiving Break – No Class

The only labs you will not be required to wear long pants and are the first lab, the anatomy lab, the retail experience lab, the sensory lab & cooking lab, and the processed meat eating lab

All other labs be prepared for either the slaughter floor (hot & dirty) or cutting (cold).

- Pants and shirt must be washed after each use to maintain cleanliness.
- Rubber footwear will be worn during all laboratory periods that involve participation on the slaughter floor, in the cutting room, or in the cooler. You are responsible for acquiring rubber footwear (**required by 8/28**).
- The meat laboratory provides safety helmets, rubber aprons, and safety gloves. You will borrow an employee/meat lab knife as well
- Since this equipment will be used by students in other lab periods, you are responsible for cleaning it and placing it in the proper location for subsequent laboratory period.

Digital devices (cell phones, laptops, tablets):

Students are asked to silence their cellular phones before entering the classroom. In order to accommodate all learning styles, students may use laptops or tablets for the purpose of taking notes. If students are found to be Facebooking or texting, they will be asked to turn off their digital device.

Risk Associated with the Use of Livestock and their tissues

Working with livestock is inherently *risky*. Many of these animals are capable of injuring people, especially when they are in the *flight or fight* mode inspired by a stressful situation. The instructors will work to provide students with the ability to manage livestock with minimal stress, thus lowering the risk of injury to people and animals.

Livestock species can carry microorganisms that can cause diarrhea and flu-like symptoms in humans. These microorganisms can be shed in an animal's feces and saliva. These organisms of concern such as Salmonella, Campylobacter, and E.coli can survive on the animal's hide or surroundings, and though unlikely could be present in/on meat. These pathogens can cause significant illness, especially to someone who is immunocompromised. Students should wash their hands after handling livestock and/or raw meat.

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Campus Health and 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.

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.

Privacy and Accessibility Policies

[required for online courses, list all technology used]

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)