

**Meats - ANS 3634C**  
**Fall 2016**  
**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.

**Lecture:** Tuesday & Thursday, Period 1 (7:25 – 8:15 am)  
**Lab:** Thursday Periods 6 & 7 (12:50 – 2:45 pm; sect. 0237) or  
Periods 8 & 9 (3:00 – 4:55 pm; sect. 1471)  
**Location:** Animal Sciences Building, Room 156

**Instructor:**

Tracy Scheffler, PhD

Office: 210F Animal Sciences Bldg (459)

Office phone: 352-392-7529

Office hours: open door policy, but make an appointment to guarantee time and availability  
[tscheffler@ufl.edu](mailto:tscheffler@ufl.edu)

**Teaching assistants:**

Shelby Wright [swright932@ufl.edu](mailto:swright932@ufl.edu)

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**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

**Required Text (Lab Manual):**

Meat Science Laboratory Manual (8<sup>th</sup> ed.) Savell & Smith. American Press.

**Optional Texts:**

- The Meat We Eat. (14th Ed.) 2000. Romans, Costello, Carlson, Greaser, & Jones. 2000. Interstate Printers and Publishers, Inc.

- Principles of Meat Science. 2012. Aberle, Forrest, Gerrard, & Mills. Kendall Hunt Publishers.

### Course Website on Canvas

The canvas website will contain the syllabus and resources, such as readings and lessons. Email communications will be sent via the course website.

### Course grading:

Lab quizzes:

- Sept. 13 (in class)
- Oct. 6
- Nov. 17

Lecture exams:

- Sept. 29
  - Nov. 8
- Final – Dec. 14

### **Grades will be based on (points):**

Laboratory	pts	Lecture	pts
Quiz 1 (labs 1-3)	35	Exam 1	125
Quiz 2 (labs 4-6)	25	Exam 2	125
Quiz 3 (labs 7-12)	45	Final	175
Participation, lab worksheets	45	Participation	25
Total lab	150	Total lecture	450
<b>Total points (lab + lecture) = 600</b>			

**Participation, lab worksheets (lab):** Points will be awarded based on attendance and engagement in lab activities, and completion of worksheets during lab or other assignments (such as short pre- or post-lab quizzes in canvas)

Example scale, participation: Full points = present in lab, actively participating in assigned task; Half credit = present, but not active or communicating with team; No credit = unexcused absence

**Participation (class):** will be based on pop quizzes (questions of the day); to earn points you must be present and submit your answers at the time the quiz is given

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

A	93 – 100
A-	90 – 92.9
B	83 – 89.9
B-	80 – 82.9
C	73 – 79.9
C-	70 – 72.9
D	63 – 69.9
D-	60 – 62.9
E	< 60

Plus (+) grades may be awarded as deemed appropriate by instructor. Percentages for a grade may be adjusted down, but will not be adjusted up (for example, if you earn 92% you will get no lower than an A-, but it is possible you may be awarded an A).

More information on the university wide grading policy can be accessed at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

**Lecture Schedule**

Topics subject to revision as course progresses. Exam/quiz dates will not change.

	<b>Date</b>		<b>Topic</b>
1	T	8-23	Course intro/meat - economics & in the diet
	Th	8-25	Carcass tissues/general slaughter process
2	T	8-30	Meat inspection
	Th	9-1	Meat inspection
3	T	9-6	Meat inspection
	Th	9-8	Muscle structure & function
4	T	9-13	<b>Quiz 1</b>
	Th	9-15	Muscle structure & function, contraction
5	T	9-20	Muscle contraction
	Th	9-22	Conversion of muscle to meat
6	T	9-27	Conversion of muscle to meat
	Th	9-29	<b>Exam 1</b>
7	T	10-4	Ante & post-mortem factors affecting meat quality
	Th	10-6	Ante & post-mortem factors affecting meat quality
8	T	10-11	Postmortem tenderization
	Th	10-13	Postmortem tenderization
9	T	10-18	Cartilage & bone growth
	Th	10-20	Fat deposition & growth
10	T	10-25	Muscle growth
	Th	10-27	Growth / development / compositional changes
11	T	11-1	Factors relating to composition
	Th	11-3	Factors relating to composition
12	T	11-8	<b>Exam 2</b>
	Th	11-10	Factors relating to composition
13	T	11-15	Technological advances
	Th	11-17	Meat by products
14	T	11-22	Meat color
	Th	11-24	** Thanksgiving ** no class
15	T	11-29	Meat color
	Th	12-1	Intro to meat processing
16	T	12-6	Course wrap-up, review
	W	12-14	<b>Final exam (14F) 8-10 pm</b>

**Lab Schedule**

Topics subject to revision as course progresses. Exam/quiz dates will not change.

Lab	Date	Subject	Lab exercise <sup>a</sup>	Reqd. Dress <sup>b</sup>
1	8-25	Orientation, meat inspection	1 & 2	A
2	9-1	Anatomy 1	3	B
3	9-8	Anatomy 2	3	B
4	9-15	Pork Slaughter	4	B
5	9-22	Pork Wholesale Fabrication	6	B
6	9-29	Pork Retail	6	B
7	10-6	Cookery ( <b>Quiz 2</b> )	16 **	A
8	10-13	Lamb Slaughter	9	B
9	10-20	Lamb Fabrication	11	B
10	10-27	Beef Slaughter	12	B
11	11-3	Beef Forequarter	14	B
12	11-10	Beef Hindquarter	14	B
13	11-17	Meat Processing ( <b>Quiz 3</b> )	8, 15	B
14	11-24	Thanksgiving, no class		
15	12-1	Sensory analysis	**	B

<sup>a</sup> Lab exercise

Number refers to required text

\*\* Additional material will be provided via Canvas.

<sup>b</sup> Required dress

A = no special requirement

B = Rubber footwear, old jeans, old shirt

**Laboratory Information:****Equipment:**

- 1 scabbard, sanitizable
- 1 pair rubber footwear
- 1 knife
- Old pants/jeans and shirt with sleeves

Lockers will be available for clothing in the Meat Lab during the laboratory period.

Pants and shirt must be washed after each use to maintain cleanliness.

Rubber footwear must be worn during all laboratory periods that involve participation on the slaughter floor, in the cutting room, or in the cooler.

The meat laboratory provides safety helmets, rubber aprons, and safety gloves.

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 periods.

**Attendance policy:**

The following are considered authorized absences if the indicated conditions are met:

- *University approved field trip or activity:* These must be cleared at least one week in advance of the major examination. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.
- *Death or serious illness in the family:* A letter of explanation from the physician or minister who attended the patient or was in charge of the funeral services, respectively, must verify this. This letter must be within 14 days following the missed examination or the grade of zero will be assigned.
- *Personal illness that is too severe or contagious for the student to attend class:* A letter of explanation from a physician on official letterhead must verify this. This letter must be within 14 days following the missed examination or the grade of zero will be assigned.
- *Legal procedure, administrative procedure, or military duty:* The instructor must be notified at least one week in advance of the major examination and have a verification letter on official letterhead. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.
- *Religious observance:* The instructor must be notified at least one week in advance of the major examination. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.
- *Mandatory admission interview for professional school which cannot be rescheduled:* The instructor must be notified at least one week in advance of the major examination and have a notification from the appropriate individual on official letterhead. If not cleared in an appropriate fashion, a grade of zero will be assigned for the missed examination.

**Digital devices (cell phones, iPads, laptops)**

Students are asked to silence their cellular phones before entering the classroom. Unless students are taking notes on their laptops, laptops should be off during class. If students are found to be Facebooking or texting, they will be asked to turn off their digital device.

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**General Information:****Online course evaluation process**

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last 2-3 weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

**Academic honesty & The Honor Code**

UF students are bound by The Honor Pledge, which states:

*“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity.”* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on your course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding Student Honor Code, please see:

<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

### **Software use**

All faculty, staff, and students of the university are required and expected to obey 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.

### **Services for students with disabilities**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodations should first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Dean of Students Office - Disability Resource Center, 0020 Reid Hall, 352-392-8565,  
[www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

### **Campus helping resources**

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking career or academic goals which interfere with their academic performance.

**University Counseling & Wellness Center:** 3190 Radio Rd. 352-392-1575

[www.counseling.ufl.edu/cwc](http://www.counseling.ufl.edu/cwc)

Counseling Services  
Groups & Workshops  
Outreach & Consultation  
Self-Help Library  
Wellness Coaching

**Career Resource Center:** 1<sup>st</sup> Floor, JWRU- J.Wayne Reitz Union, 352-392-1601

[www.crc.ufl.edu](http://www.crc.ufl.edu)

If you are having problems (class or non-class related) that are affecting your academic performance, please feel free to visit with the instructor to address the problem. Please do not wait until the end of the semester to discuss any concerns or difficulties.