

ANS 4932

REVIEW OF MEAT SCIENCE

One Credit Hour

Class Location: ANS 155

Spring Semester 2019

Class Time: 9 - 10 (4:05 PM - 6:00 PM)

Coordinators

Taylor Langford

Office: 224B ANS

Cell: 352-354-5006

E-mail: taylorlangford@ufl.edu

Morgan McKinney

Office: 224B ANS

Cell: 317-498-2394

E-mail: mckinneym@ufl.edu

Kyle Mendes

Office: 212 ANS

Cell: 209-556-7499

Email: kmendes15@ufl.edu

Course description: Review of Topics in Meat Science with the goal of preparing students for Reciprocal Meat Conference Quiz Bowl.

Course objectives:

ANS 4932 Review of Topics in Meat Science is a hands-on one credit hour lecture course covering all aspects that relate to meat science. The lectures will cover all topics in meat science including but not limited to meat and livestock production and processing. Worksheets on different topics will be given to complement in class activities. Laboratory activities will include muscle structure, product development and food safety. This course is an excellent introduction for all meat science courses and will provide a baseline of information for students interested in careers in meat science. At the end of this course, students will be able to:

- Demonstrate how to apply information learned in this class to the Reciprocal Meat Conference Quiz Bowl competition.
- Gain the ability to write a HACCP plan for a meat product that the students develop.
- Gain understanding of the historical, current and future landscape of the meat science and processing field.

Text:

None is required, but the meat evaluation handbook is an excellent resource

<http://www.lulu.com/shop/search.ep?keyWords=meat+evaluation+handbook&categoryId=100501>

Class Attendance and make up work:

Points from in-class quiz bowl activities will be part of almost every class meeting and will provide 40% of the final class grade. Meat is a perishable commodity, thus class attendance is necessary for students to receive points from these activities. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, and professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved.

Course grading:

Grades Based On The Following:		Letter Grades Will Be Determined as Follows:			
2 Exams (10%)	20%	A	90 & Above	C	70 - 74.99
Participation	40%	B+	85 -89.99	D+	65 - 69.99
Projects	10%	B	80 - 84.99	D	60 - 64.99
Quizzes & worksheets	10%	C+	75 - 79.99	F	59.99 & Below
Product Development	20%				
Total	100%				

Topics Covered

- Meat industry history – The Meat We Eat
- Muscle structure and function – Principles of Meat Science
- Conversion of muscle to meat – Principles of Meat Science and The Meat We Eat
- Food safety (including USDA and FSIS regulations)
- Meat microbiology – Modern Food Microbiology
- Meat grading – Meat Evaluation Handbook
- Meat processing
- Meat industry and meat organizations
- Factors that affect meat palatability and sensory attributes
- Meat marketing and pricing
- Growth and development
- Role of meat in the diet
- Ground Beef
- Inedible Meat By Products
- Edible Meat By Products
- Exports
- Exotic Animals
- Ingredients- Ingredients in Meat Products, The Meat We Eat
- Product labeling - Food Standards and Labeling Policy Book, 9 CFR 319
- Regulatory- USDA/ FSIS, Food Standards and Labeling Policy Book, 9 CFR 319
- Function of Equipment - The Meat We Eat
- Picture Questions
- Current events
- Any other topic that may be important or current to the meat industry

For information on current UF policies for assigning grade points, see

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Students will be taught about all aspects of the meat industry. They will be able to demonstrate this knowledge is a question and answer

The first project will include construction of a sarcomere (the contractile unit of a muscle). The second project will be a presentation of a bacteria of interest to the meat industry i.e. Listeria, E.coli, Salmonella

The students will also be required to develop an innovative product and write a HACCP plan for the product that they develop.

There will be a total of 6 worksheets throughout the semester. Worksheets will primarily consist of information covered in lectures. Worksheets will focus on anatomy, muscle contraction, yield and quality grades and meat industry history.

All tests and quizzes will be short answer. Quizzes will consist of 10 questions and be based off of information presented in class. Each quiz will occur at the completion of a course section (ie: yield and quality grading, muscle contraction, HACCP etc.).

Course Schedule

DAY	DATE	TOPIC/TASK
Week 1	1/7	Introduction & Muscle Structure and Function
Week 2	1/15	Muscle Contraction
Week 3	1/22	Conversion of Muscle to Meat
Week 4	1/29	Yield and Quality
Week 5	2/5	Exam 1
Week 6	2/12	Anatomy
Week 7	2/19	Slaughter process/ equipment
Week 8	2/26	History
Week 9	3/5	Spring Break- NO CLASS
Week 10	3/12	HACCP and Meat Organizations
Week 11	3/19	Current Events
Week 12	3/26	Exam 2
Week 13	4/2	Miscellaneous Topics and Quiz Bowl Preparation
Week 14	4/9	Miscellaneous Topics and Quiz Bowl Preparation
Week 15	4/16	Miscellaneous Topics and Quiz Bowl Preparation
Week 16	4/23	NO CLASS

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty 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 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 the 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 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.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's 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 clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/*
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/
- *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*

Student Complaints

Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

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 accommodation must 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

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.