

ANS 2002: The Meat We Eat

I. General Information

Class Meetings

- Fall 2025
- Class Time: Monday, Wednesday, and Friday (8:30am-9:20am Period 2)
- Class Location: Room ANS 156
- Three Credit Hours

Instructor

- Kyle Mendes
- Office: Animal Science (Bldg 459) Room 212
- Email: kmendes15@ufl.edu
- Cell phone: (209)556-7499
- Office Hours: MWF 11:35-12:35

Course Description

ANS 2002- This three-hour course fulfills the core curriculum requirement for biological sciences (B). Courses in the biological sciences introduce students to the basic concepts of science and the scientific method and enhance awareness of scientific developments and their impact on society and the environment. This class provides students with an understanding of scientific terms, concepts and theories involving animals and the products they produce. This will allow students to formulate empirically testable hypotheses relative to the safety, quality, humaneness and sustainability of muscle food production. The Meat We Eat is a non-ANS major lecture course designed to create a more informed consumer of animal muscle products and address current issues in animal agriculture. The lectures will cover all aspects of animal protein production, processing and retailing, as well as the role of animal muscle protein in the diet. Students will understand proper selection, preparation, cooking and storage of animal protein products and their influence on food safety and palatability. Students will develop an appreciation for meat and muscle chemistry and composition, muscle growth and contraction.

Course grading: There will be no makeup questions of the day or examinations. Points of the day will be assessed on at least 20 days. For students with an authorized excuse, the grade for a missed major examination will be determined by averaging the scores for the major examinations that were taken.

General Education

Biological Sciences

This course accomplishes the [General Education](#) objectives of the subject areas listed above. A minimum grade of C is required for General Education credit. Courses intended to satisfy General Education requirements cannot be taken S-U.

Course Objectives

- Know the basic concepts, theories and terminology of animal, meat, and food science and apply the scientific method to meat animal production.
- Know the major scientific developments within animal, meat, and food science and the impacts on society and the environment.
- Know relevant processes of physiology and biochemistry within animal, meat, and food science which impact food safety and quality.
- Know the role of muscle foods in a balanced diet.
- Know the role of meat animal production and muscle foods in feeding a growing world population.
- Students will develop the ability to formulate empirically testable hypotheses relative to the safety, quality, humaneness and sustainability of muscle food production.
- Students will be asked to take facts presented in class and synthesize a written answer for real world questions.
- Students will learn the chain of production, including grading, processing and merchandising for major meat animal species

Required Readings and Works

- Links to all required reading material are available in the schedule of the syllabus and will be made available in each module on canvas
- Materials and Supplies Fees: n/a

II. Graded Work

Description of Graded Work

Grading Scale

<u>Work</u>	<u>Description</u>	<u>Notes</u>	<u>Points</u>
<u>Introductory Biography</u>	Students will submit a 150-word personal biography to introduce themselves to the course instructor. Required content includes self-introduction, background, interests, major, goals upon graduation, and what may help them succeed in this class.		<u>50</u>
<u>Preparing a meat dish</u>	Students will be required to select a meat or meat substitute based dish that they have traditional dish for their family and create a video preparing and cooking the dish and write a short reflection paper highlighting the history and origin of the dish. And their experience preparing and consuming it.		<u>100</u>
<u>Two Exams</u>	The exams will test the students' understanding of the concepts taught through 10 weeks of class. The exams will be taken in class and consist of ~100 questions. The questions will consist of fill-in-the-blank, multiple choice and short and long answer.		<u>200</u>
<u>Written Assignments</u>	• Label Claim Assignment Student will select one production claim that is listed on the label of an animal source food and research its merit. Then prepare a PowerPoint slide to explain the production claim. • Microbiology Assignment Complete the chart on the different bacteria. • Curiosity Assignment Students will select one topic related to food production or animal agriculture and develop a PowerPoint or video on the topic		<u>80 points each</u>

	• Define Ethics and Sustainability with relation to Livestock Production Students will write a one page paper defining what they believe ethical and sustainable livestock production looks like.		
<u>Comprehensive Final Exam</u>	There will be a FINAL exam. The exam will test the students' understanding of modern and historical impacts meat has had on the diet and lifestyle of different cultures taught during weeks 1-16 in the course. As well as students should be able to develop and defend their viewpoint of if and how animal source foods should be included in the diet. The exam will be taken in class. The questions will consist of multiple choice, fill-in-the-blank, identification, and short and long answer.		<u>100 points</u>
<u>Attendance</u>	Attendance will be tracked through points of day which will be taken in class		<u>160 points</u>

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	94 – 100%		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		E	<60

III. Annotated Weekly Schedule

Week	Topics, Homework, and Assignments
Week 1	• Topic: Module 1 History of Feeding a Diverse World: Introduction • Summary: Introduce the course and cover expectations listed in the Syllabus. • Assignment: Introduce Yourself
Week 2	• Topic: Module 1 History of Feeding a Diverse World • Summary: Examine where current dietary standard and Food safety Regulations evolved from and their current application in a modern society • Assignment: Label Claim Assignment
Week 3	• Topic: Module 2 Food Microbiology and Meat in the Diet • Summary: Explore how modern Food production and how meat plays a role in our diet. • Assignment:
Week 4	• Topic: Module 2 Food Microbiology and Meat in the Diet • Summary: Explore how modern Food production and how meat plays a role in our diet. • Assignment: Microbiology Assignment
Week 5	• Topic: Module 3 Cell Cultured Meat • Summary: This week class will be focused on discussing the ethical and economic challenges of cell cultured Meat • Assignment: Exam 1
Week 6	• Topic: Module 4 History of Animal Production • Summary: This week we will focus on the sustainability of modern animal production. Focusing on environmental impacts in livestock production • Assignment:
Week 7	• Topic: Module 5 Modern Animal Production • Summary: This week we will focus on the sustainability of modern animal production. Focusing on environmental impacts in livestock production • Assignment: Define Ethics and Sustainability with relation to Livestock Production
Week 8	• Topic: Module 6 Understanding Animal Welfare • Summary: This week we will continue to explore the Meat Paradox and discuss why people choose to historically include meat in their diet.

Week	Topics, Homework, and Assignments
	• Assignment: N/A
Week 9	• Topic: Module 7 Current Role of Animal Source Foods in the Diet • Summary: This week we will discuss the history of food and animal source food preservation that has lead to the complexity and uniqueness of meat dishes around the world. • Assignment: Preparing a meat dish
Week 10	• Topic: Module 7 Current Role of Animal Source Foods in the Diet • Summary: This week we discuss the many challenges of feeding the world and specifically compare and contrast those challenges in developing and developed countries. Focusing on what role animal source proteins should play in challenge. • Assignment: N/a
Week 11	• Topic: Module 8 Harvest and Processing • Summary: This week we will discuss the process of harvest and processing of different meat animals • Assignment: Exam 2
Week 12	• Topic: Module 8 Harvest and Processing • Summary: This week we will discuss the process of harvest and processing of different meat animals • Assignment: N/A
Week 13	• Topic: Module 9 Conversion of Muscle to Meat • Summary: This week we will discuss what the biological and chemical changes that occur during the conversion from muscle to meat • Assignment: Curiosity Assignment
Week 14	• Topic: Module 9 Conversion of Muscle to Meat • Summary: This week we will discuss what the biological and chemical changes that occur during the conversion from muscle to meat • Assignment: N/A
Week 15	• Topic: Module 10 Meat Packaging • Summary: This week we will discuss the role of packing meat products • Assignment: Final Exam

IV. Student Learning Outcomes (SLOs)

Student Learning Outcomes (SLOs)

At the end of this course, students will be expected to have achieved the General Education learning outcomes as follows:

Content: Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline(s).

- Identify, describe, and explain biological aspects of the human diet and the role animal-source foods have played in the diet, historically and in modern society.

Assessments: Worksheets, exams

- Identify, describe, and explain the challenges of feeding an ever-growing population and the challenges of feeding this growing population with alternative foods.

Assessments: Worksheets, exams

Critical Thinking: Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline(s).

- Critically analyze and evaluate the future of animal-source food production as well as the production of alternative foods, including their connection and possible impacts on the environment

Assessments: Homework assignments, exams, production benchmark assignment

- Critically evaluate and assess the life cycle and production practices used in modern livestock production, making connections to the welfare of livestock as well as consumption of their foods in the diet

Assessments: Worksheets, exams, label claim assignment

Communication: Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).

- Develop and present the analysis of qualitative and quantitative data, and logic to draw reasonable conclusions based on their analysis on a specific problem

Assessments: Worksheets

Connection: Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.

- Analyze and compare the diets of different cultures and the affect on the population.

Assessments: Worksheets, ethics and sustainability assignment

VI. Required Policies

Attendance Policy

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

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

Working with Livestock

Working with livestock will require students to adhere to handling practices provided by the instructor either in written or verbal format. 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.

Biosafety and Security

The biosafety and biosecurity of animals and students is a top priority for laboratory activities. Disease transmission can have severe negative consequences on animal and human health that can also be fiscally taxing. The use of cell phones or cameras at animal facilities is not permitted without receiving written permission. Instructors and TA's may dismiss students from class for violation of biosecurity procedures.

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.uf.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF. Please contact U Matter We Care 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.