

SYLLABUS

Course Instructor:
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Course Communications

The best and most effective means of communicating with the instructor is the Canvas “Inbox” feature. Instructor will respond to emails within 24 to 48 hours (max). Office hours are available by appointment. Email the instructor to request an appointment.

Course Time and Location

This is an online course. Therefore, course time and access to course materials is 24 hours daily, except for quiz and activity assignments. Please review the course schedule outlined in this syllabus.

Course Description

ANS 4932 Meat Processing is a two (2) credit lecture course with related hands-on activities. The course emphasizes the principles for use of meat and poultry as the main center of the plate item and as ingredients in other food products. Food safety, ingredient technology, processing technology, culinary technology, meat/poultry inspection regulations and food labeling are introduced in this class. Independent hands-on activities are an intricate part of this course to provide experiential learning for the students and a unique introduction to meat and poultry processing and related food animal species.

Major Materials Needed for the Class

- Digital weighing scale with 100 - 1,000-gram capacity.
- Camera (your cell phone is sufficient)
- pH strips (can purchase from local hardware and/or department store)
- Food processor or any kitchen grinder-type device.
- Plastic 8 to 16-ounce regular drinking cups.
- Three regular mixing bowls or similar type of containers for the marination activity.
- One 8-ounce bottle of dishwashing liquid that contains disinfectant/sanitizer for cleaning after activities.

Course Objectives: After completion of this course, students will have acquired the knowledge and skills to:

- Summarize the principles of meat and poultry processing.
- List and explain factors that affect the growth of bacteria in their food.
- Recognize United States Department of Agriculture (USDA) approved ingredients for use in meat and poultry products.

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- Explain the role of smoking, packaging and casing technologies in the production of meat and poultry products.
- Explain the role of curing, emulsification and fermentation technologies in the production of meat and poultry products.
- Compare and contrast conventional poultry processing to farm-raised/free range poultry.
- Apply culinary arts and food safety practices to produce safe and consumer appealing food products.
- Compare and contrast natural, organic and conventionally produced poultry.
- Produce a meat or poultry product based on knowledge gained in the class.

Class Materials that are included in this online course:

- Recorded Meat and Poultry Processing lecture videos.
- Meat and Poultry Processing hands-on activities that correspond to the lectures.
- Activity sheets for recording data for the assigned activities.
- Pertinent meat and poultry processing videos to enhance the student's learning experiences.

Required Course Textbook: None

Suggested References

1. Codes of Federal Regulations (CFR). 2016. Title 21. Food and Drug, Parts 100 – 190 (food labeling, food claims, food additives, etc.).
2. Codes of Federal Regulations (CFR). 2016. Title 9. Animals and Animal Products, Chapter III Food Safety and Inspection Service, Parts 300-592. Access at <http://www.gpoaccess.gov/cfr/index.html>
3. Hedrick, H., Forrest, J., Aberle, E. D. and Judge, M. D. 2001. Principles of Meat Science. W. H. Freeman and Co.
4. Pearson, A. M. and Tauber, F. W. 1984. Processed Meats. 2nd ed., Van Nostrand Reinhold Co.
5. Romans, J. R., Costella, W. J., Carlson, W. W., Greaser, M. L. and Jones, K. W. 2000. The Meat We Eat. 14th ed. Prentice Hall.
6. Stadelman, W. J., Olson, V. M., Shemwell, G. A. and Pasch, S. 1988. Egg and Poultry-Meat Processing. VCH Publishers.

Course Structure

This course will involve lectures, quizzes, hands-on activities and discussion sessions. Materials needed for the class assignments are listed with each activity. The course will provide learning experiences that will apply to the student's everyday experiences, as well as future careers in meat and poultry processing and food safety. This course will also have significant impact on the student's education in the areas of preparation, handling and safety considerations for meat, poultry and related food products. Interaction with classmates and the instructor is emphasized in this course to insure maximization of the student's learning experience.

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Grading Scale:

The final grade will include scores on module quizzes, hands-on activities, class discussions and one special project, which will include preparation of a product and a video of the product produced.

Total Points for the course will be 1121 points, which will include:

	Points	Percentage (%)
Class discussions	260	23.0
Module Quizzes	256	23.0
Hands-on activities	325	29.0
Special Project	280	25.0
Total Points	1121	100.0

The grading system will include the following totals:

	Grade	Points
A	95.1 to 100	1066-1121
A-	90.1 to 95.0	1010-1065
B+	85.1 to 90.0	954-1009
B	80.1 to 85.0	898-953
B-	75.1 to 80.0	842-897
C+	70.1 to 75.0	786-841
C	65.1 to 70.0	730-785
C-	60.1 to 65.0	674-729
D+	55.1 to 60.0	618-673
D	50.1 to 55.0	562-617
D-	45.1 to 50.0	506-561
E	<45.1	<506

UF Passing Grades and Grade Points Effective Summer A 2009:

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	.67	0

Grades and Grade Points

For information on current UF policies for assigning grade points, see the [UF Undergraduate Catalog page on Grades and Grading Policies](#).

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Schedule for Lectures and Class Assignments

In general, lectures and YouTube videos will be open 24 hours daily for the duration of the course. The activities and quizzes will be opened at 8:00 a.m., and closed on the dates designated in the table below. All closing times are 11:59 p.m. for all assignments on the due date. Late work will not be accepted. No assignments are due on University of Florida designated holidays. An additional day will be given for activities that include a holiday within the closing date.

Lecture Schedule and Assignment Due Dates

Module	Assignment	Description	Open Date	Close Date*
Module 1 - What is Meat Processing?				
1	Watch Video	Welcome Video	Aug 21	
1	Introduce Yourself to the class	Introduce yourself to your classmates in the “Welcome to ANS 4932” Discussion	Aug 21	Aug 31
1	Read Syllabus	Become familiar with all material in syllabus	Aug 21	
1	Watch YouTube Video	How It’s Made: Deli Meats, https://www.youtube.com/watch?v=hesQfC0qn2s , 4:58 minutes	Aug 21	
1	Take Syllabus Quiz	Syllabus Quiz	Aug 25	Aug 27
1	Complete Activity 1	Meat Processing Questionnaire	Aug 21	27
1	Watch Lecture	Introduction to Meat Processing	Aug 23	
1	Complete Activity 2	Importance of Food Labels	Aug 23	Aug 29
1	Take Module 1 Quiz	Meat Processing	Aug 27	Aug 29
Module 2 - Food Safety and Preservation				
2	Watch YouTube Video	YouTube video: Salmonella contamination can spread from farms to processing plants to the chicken on your table , 3:13 minutes.	Aug 28	
2	Watch Lecture 1	Food Safety and Preservation: Farm to Table	Aug 28	
2	Complete Activity 1	Safe Handling Information	Aug 28	Sept 3
2	Take Module 2 Quiz 1	Food Safety and Preservation: Farm to Table, Lecture 1	Sept 1	Sept 3
2	Watch Lecture 2	Food Safety and Preservation: Intrinsic Factors	Sept 2	
2	Watch Lecture 3	Food Safety and Preservation: Extrinsic Factors	Sept 3	
2	Complete Activity 2	Inherent pH	Sept 3	Sept 9

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Module	Assignment	Description	Open Date	Close Date*
2	Post in Discussion for Activity 2	Inherent pH	Sept 3	Sept 9
Holiday, September 4, 2017 – Labor Day				
2	Take Module 2, Quiz 2	Intrinsic and Extrinsic Factors, Lectures 2 and 3	Sept 9	Sept 11
Module 3 – What’s in Your Food?				
3	Watch Lecture 1	Non-Meat Ingredients and Food Labeling	Sept 10	
3	Complete Activity 1	Identifying Label Components	Sept 10	Sept 16
3	Watch YouTube Video	YouTube: Kids Living With Food Allergies , 3:29 minutes	Sept 11	
3	Watch Lecture 2	Allergens in Meat and Poultry Products	Sept 11	
3	Complete Activity 2	“Raid Your Kitchen for Allergens	Sept 14	Sept 20
3	Complete Activity 3	Preparation of a Product Label	Sept 17	Sept 23
3	Take Module 3 Quiz	What’s in Your Food?	Sept 16	Sept 18
Module 4 – Meat and Poultry Chemistry				
4	Watch Lecture 1	Factors that Affect Meat and Poultry Protein Functional Properties	Sept 17	
4	Complete Activity 1	Reading the Label: Nonmeat Ingredients that Affect Water holding Capacity	Sept 17	Sept 23
4	Take Module 4, Quiz 1	Meat Chemistry, Lecture 1	Sept 22	Sept 24
4	Watch YouTube video	YouTube: How to Make Chicken Marinade , 2:10 minutes	Sept 20	
4	Watch Lecture 2	Marination Process for Meat and Poultry Products	Sept 20	
4	Complete Activity 2	Evaluation of Nonmeat Ingredients in Marinade Solutions for Chicken Breast Fillets	Sept 21	Oct 4
4	Post to Discussion Board for Activity 2	Evaluation of Nonmeat Ingredients in Marinade Solutions for Chicken Breast Fillets	Sept 21	Oct 4
4	Watch YouTube video	YouTube: Science of Meat Color , 3:06 minutes	Sept 23	
4	Watch Lecture 3	Muscle Color	Sept 23	
4	Take Module 4, Quiz 2	Meat Marination and Muscle Color, Lectures 2 and 3	Sept 27	Sept 29
4	Complete Activity 3	The effects of Species and storage on Muscle color (Myoglobin pigment) of meat and poultry products:	Sept 25	Oct 12
4	Post to Discussion Board for Activity 3	The effects of Species and storage on Muscle color (Myoglobin pigment) of meat and poultry products: Requires monitoring meat color for ten (10) days	Sept 25	Oct 12

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Module	Assignment	Description	Open Date	Close Date*
Module 5 – Smoking, Packaging and Casing Technology				
5	Watch YouTube video	YouTube: How Liquid Smoke is Made , 2:44 minutes	Sept 27	
5	Watch Lecture 1	Smoking Technology for Processed Products	Sept 27	
5	Take Module 5, Quiz 1	Smoking Technology	Oct 1	Oct 3
5	Watch YouTube video	YouTube: How To Make Bratwurst Sausages (using natural casing) , 3:38 minutes	Sept 29	
5	Watch Lecture 2	Casing Technology for Processed Products	Sept 29	
5	Watch Lecture 3	Packaging Technology for Processed Products	Sept 29	
5	Complete Activity 1	Casing and Packaging Exploration	Sept 30	Oct 9
5	Post to Discussion Board	Casing and Packaging Exploration	Sept 30	Oct 9
5	Take Module 5, Quiz 2	Casing and packaging Technology	Oct 9	Oct 11
Holiday, October 6, 2017 – University of Florida Homecoming				
Module 6 – Curing, Emulsion, and Fermentation				
6	Watch YouTube video	Watch YouTube video, Modern Ham Curing & Processing , 5:44 minutes	Oct 5	
6	Watch Lecture 1	Curing Technology for Meat and Poultry Products	Oct 5	
6	Complete Activity 1	Name that Ham!	Oct 5	Oct 11
6	Watch YouTube video	YouTube: How It's Made - Hot Dogs , 5:02 minutes	Oct 9	
6	Watch lecture 2	Emulsion Technology	Oct 9	
6	Complete Activity 2	Are All Hotdogs Created/Manufactured Equally?	Oct 10	Oct 23
	Post on Discussion Board for Activity 2	Are All Hotdogs Created/Manufactured Equally?	Oct 10	Oct 23
6	Watch YouTube video	Watch YouTube video: Salami Processing Line - 2 - Velati Srl , 4:34 minutes	Oct 12	
6	Watch lecture 3	Fermentation Technology for Meat and Poultry Products	Oct 12	
6	Complete Activity 3	Fermented Sausage Exploration	Oct 12	Oct 25
6	Post on Discussion Board for Activity 3	Fermented Sausage Exploration	Oct 12	Oct 25
6	Take Module 6 Quiz	Curing, Emulsion and Fermentation Technology for Meat and Poultry Products	Oct 16	Oct 18

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Module	Assignment	Description	Open Date	Close Date*
Module 7 – Poultry Processing				
7	Watch YouTube video	YouTube: An Inside Look at U.S. Poultry Processing , 7:35 minutes	Oct 14	
7	Watch lecture 1	Conventional Poultry Processing	Oct 14	
7	Take Module 7 Quiz 1	Conventional Poultry Processing	Oct 18	Oct 20
7	Watch YouTube video	Joel Salatin Processes Chickens - Mother Earth News Fair , 16:00 minutes	Oct 17	
7	Watch lecture 2	On-Farm Poultry Processing	Oct 17	
7	Complete Activity 1	Are All Chickens the Same?	Oct 17	Oct 30
7	Post on Discussion Board for Activity 1	Are All Chickens the Same?	Oct 17	Oct 30
7	Take Module 7 Quiz 2	On-Farm Poultry Processing	Oct 22	Oct 24
Module 8– Make Your Own Product				
8	Watch Lecture 1	Special Project Production: Factors to consider for the development of a formulation/recipe for meat and poultry products	Oct 22	
8	Watch YouTube video	“Product - Development Stages”, 10:16 minutes	Oct 22	
8	Watch YouTube video	How to make an awesome Food Tube video with Jamie Oliver & Uncle Ben's , 4:54 minutes	Oct 22	
8	Watch YouTube video	Homemade Seafood Paella - Spain Recipe - Cooking with Alia - Episode 341, 8:49 minutes.	Oct 22	
8	Watch Lecture 2	Culinology in Meat and Poultry Processing	Oct 22	
8	Take Module 8 Quiz	Product Development and Culinology	Oct 26	Oct 28
8	Complete Activity 1	The Ideal Product For Me: Brainstorming Session	Oct 22	Oct 29
**Instructor will review the results of your brainstorming activity and provide feedback on or before November 2				
Holiday November 10, 2017, Veterans Day				
8	Complete Activity 2	The Ideal Product for Me: Product Plan	Nov 2	Nov 8
8	1. IT'S TIME TO BEGIN GATHERING INGREDIENTS FOR YOUR PRODUCT. Purchase the ingredients you need and create your meat or poultry product following the steps you outlined in Module 8 Activity 2: Product Plan			
8	Complete Activity 3	Create and Evaluate My Product	Nov 9	Dec 4
8	Complete Activity 4	Make A Product Video: Preparation of My Video	Nov 9	Dec 4
Holiday, November 22-26, 2017, Thanksgiving				

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8	Complete Activity 5	Results and Discussion: Sharing and Discussion of My Video with the Class	Nov 9	Dec 4
8	Post on Discussion Board for Activity 5	Results and Discussion: Sharing and Discussion of My Video with the Class	Nov 9	Dec 4
Last day of class, December 6, 2017				

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Summary of Activities, Discussions and Rubrics included in this course:

Module	Activity	Discussion and Points	Rubrics/ Criteria*	Points for Activities	Description of Activities
1	1			5	Welcome to ANS 4932 Discussion
1	1	-		0	Meat Processing Questionnaire
1	2	-	C	20	Importance of Food Labels
2	1	-		20	Safe Handling
2	2	D(30)	R	20	Inherent pH
3	1	-	-	20	Identifying Nonmeat Ingredients
3	2	-	-	20	Raid Your Kitchen for Allergens
3	3	-	-	20	Preparation of A Product Label
4	1	-	C	20	Reading the Label-Nonmeat Ingredients that Affect Water Holding Capacity
4	2	D(40)	R	30	Marinade data, Sensory survey
4	3	D(40)	R	30	Effects of Species and Storage on Muscle Color
5	1	D(40)		20	Casing and Packaging Exploration
6	1			20	Name that Ham
6	2	D(40)	R	30	Are All Hotdogs Equal
6	3	D(40)	R	20	Fermented Sausage Exploration
7	1	D(30)	R	30	Are all Chickens the Same?
Total Points for Modules 1-7		260		325	
Special Project – Module 8:					
8	1	-	R	40	Ideal Product for Me: Brainstorming
8	2	-	R	40	My Final Formulation
8	3	-	R	50	Sensory Evaluation of My Product
8	4	-	R	50	Preparation of My Video
8	5a	50	R		Final Video Presentation
8	5b	D(50)	R	-	Sharing and Discussion of My Video with the Class
Total Points Module 8		100	180	Total = 100 +180 = 280 points for special project	
*R=Rubric; C=Criteria					

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Summary of Quizzes included in this course:

Learning Module	Quizzes	Day/Date	Points	Description of Quiz
1	1		9	Syllabus
1	2		20	Introduction to Meat Processing
2	3		20	Food Safety and Preservation, Lecture 1
2	4		20	Food Safety and Preservation, Lectures 2-3
3	5		22	What's in Your Food?
4	6		23	Meat Chemistry, Lecture 1
4	7		18	Meat Chemistry: Marination and Muscle Color, Lectures 2-3
5	8		20	Smoking Technology
5	9		24	Casing and Packaging Technology
6	10		20	Curing, Emulsion, Fermentation Technology
7	11		20	Conventional Poultry Processing
7	12		20	On-Farm Poultry Processing
8	13		20	Product Development and Culinology
Total Quiz Points			256	

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Make-Up Policy

In order to make-up a quiz, activity, or other class assignments, official written verification of illness, athletic events and university sponsored events or other absences must be presented to instructor. The instructor reserves the right to administer an alternate assignment. All approved make-up assignments must be completed within one week of the original event.

Academic Honesty

In 1995, the UF student body enacted an honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

The Honor 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.

On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean, Student Honor Council, or Student Conduct and Conflict Resolution in the Dean of Students Office. Source: [UF Graduate Catalog](#)

It is assumed that all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

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. Both the Counseling Center and Student Mental Health Services provide 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. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health Services is located on the second floor of the Student Health Care Center in the Infirmary.

- [University Counseling Center](#), 301 Peabody Hall, 392-1575
- [Career Resource Center](#), CR-100 JWRU, 392-1601 ext. 0
- [Student Mental Health Services](#), Rm. 245 Student Health Care Center, 392-1171
 - Alcohol and Substance Abuse Program (ASAP)
 - Attention Deficit Hyperactivity Disorder (ADHD)
 - Center for Sexual Assault / Abuse Recovery & Education (CARE)
 - Eating Disorders Program
 - Employee Assistance Program
 - Suicide Prevention Program

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. 0001 Reid Hall, 392-8565,

Other Issues:

Please see the [University of Florida Student Guide](#) for specific questions concerning your college experience.