Poultry Products 508
Syllabus

8:30 – 12:00
1:30 – 4:30

WEEK 1 (June 12-16, 2017)

Muscle Food Products

Mark P. Richards
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Food Applications Lab Instructor

Beth Button (Faculty Assistant)
Dept. Food Science (UW-Madison)
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Guest Speakers

Andy Milkowski (Adjunct Professor)

WEEK 2 (June 19-23, 2017)

Egg and Egg Products

Microbiology and Food Safety

Manpreet Singh
Purdue University
Department of Food Science
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Egg Functionality

Dr. Deana R. Jones
Russell Research Center
Agricultural Research Service
Phone (706) 546-3486
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Guest Speakers

John Brunnquell (Egg Innovations)

Office Hours: schedule an individual meeting with each instructor as needed.

Course Description and Intended Learning Outcomes:

- This course will cover the basic principles and technologies involved in producing eggs, egg products and muscle-based products.
- Emphasis will be placed on understanding the role of chemical and physical processes that go into producing a high quality product.
- Students will learn how to quantitatively measure quality attributes of the different products they produce in the laboratory segments.
- An understanding of why a certain ingredient is needed in one product but not another product will be essential. Basic microbiological principles related to product quality and food safety will be described.
- Reflection exercises to process general concepts

Field Trip:

The tour will serve to introduce students to real world processing technologies in the poultry and meat industry. Time will be allotted to direct questions to the tour guide. A field trip is scheduled for Friday June 23. Bring a sweatshirt/jacket.
Requirements: Wear closed-toe shoes without heels and wear pants during laboratory exercises and field trips. No jewelry is permitted. Complete the security form before the trip Brakebush Brothers. T-shirts or long sleeve shirts are permitted, tank tops are not.
Plan to have NO contact with live fowl within 72 h of the field trip.

Grading system:

Exam 1 Meats	100 points
Exam 2 Meats	100 points
Exam 3 Eggs	100 points
Exam 4 Eggs	100 points
Participation	40 points

*Graduate Students taking course for "Graduate Credit" will be required to complete a special project as agreed upon by the student and major course instructors. Exams will be weighted at 70% of final grade, Special Project 20% of final grade, and Participation 10% of final grade.

Grading Scale:

Non-UW-Madison students

A	≥ 90%
B	≥ 80%
C	≥ 70%
D	≥ 60%
F	< 60%

UW-Madison students

A	≥ 93%
AB	≥ 88%
B	≥ 83%
BC	≥ 78%
C	≥ 70%
D	≥ 60%
F	< 60%

Attendance Policy and Make-up Exams:

Regular attendance is expected of all students. A grade of zero will be given for unexcused absences during an exam period. Contact the Midwest Poultry Consortium (Beth Nelson) to determine if an excused absence during any segments of the course can be allowed.

Morning Meats Week

Monday June 12	**Tuesday June 13**	**Wednesday June 14**	**Thursday June 15**	**Friday June 16**
Introduction	Fermentation Jerky-add wet ingredients	Thermal Processing NMIs	**Exam 1 (8:15-9:15)**	Courting the All Natural Consumer
Harvest	Curing	**Jerky thermal step (Jie)** **Loaves**	Preservation	**Hot Dogs**
Harvest	Thermal Processing	**Sticks**	**Culinary recipes 2nd set**	Harvest Defects
Harvest	**Debone**	Discuss Raw Jerky results	**Jerky Competition** **dry ingredients**	Ingredient Function Exercise
			Finish at 1230	**Lunch at FAL***

Afternoon-Meats Wee

Syllabus Proteins	**Pepperoni 1pm**	**Stuff/Clip Loaves**	Lipids	**Culinary recipes 2rd set**
Water Binding	**Culinary Recipes**	a_w and pH pepperoni	taste pepperoni deli loaves sticks	**Jerky Competition** **wet ingredients**
Intro to FAL	**1st**	Discuss thermal processed Jerky results Taste – jerky finalize breast or thigh for competition	Packaging 300	**texture & color**
Jerky-Add dry ingredients	**Set**	NMIs Case Studies	**Finish/Review** **10 Key concepts**	

An Sci Room 212
Poultry Research Lab
Food Applications Lab (FAL) Basement of Babcock Hall/Dairy Store
Meat Science Lab

***Bring your lunch on Friday if you do not want to eat products made for the class**

EGGS SECTION

Monday **June 19**	**Tuesday** **20**	**Wednesday** **21**	**Thursday** **22**	**Friday** **23**
MORNING				
Exam 2 8:30-9:15am Meat Microbiology Egg Microbiology	Egg Microbiology Egg Regulations	**Exam 3** 8:30-9:15am • Egg Industry • Shell Egg Formation and Structure • Shell Egg Processing and Composition • Shell Egg Quality - Deterioration and Preservation	• Further Processed Products - Functionality • Breakers and Liquid Egg Preservation Specialty Eggs- John Brunnquell 1130	**Exam 4** 8:00-8:45:am Field Trip
AFTERNOON				
Microbiology Lab **Jerky competition thermal step (Jie)**	**Microbiology Lab**	**Laboratory** **Exterior Egg Quality** **Interior Egg Quality***	**Laboratory** **Angel Food Cake** **Egg White Foams** **Emulsions** **finalize Jerky Competition Winners gift bags**	

*finish by 300 due to banquet

Labs in Room 257 of Meat Science Building

Lectures in Room 212 Animal Sciences

Textbooks

No text is required. The texts below are useful references.

1) The Science of Poultry and Meat Processing (Free Download) (Barbut, E-Book)
2) Egg Science and Technology (Stadelman and Cotterill, 1990)

Christie Kapsner-(GnP Reglulations/HACCP at 1st Processing talk) 2015
https://mediaspace.wisc.edu/media/Christie+Kapsner+-+Processing+Food+Safety/0_m1k4r162