

Jordan University of Science and Technology
Faculty of Agriculture
Department of Nutrition and Food Technology
First Semester 2022/2023
Course Specifications

Title & Instructor	
Course Title	Meat Technology
Course Number	NF 472
Prerequisites	
Course Website	
Instructor	Prof Abdullah Yousef Abdullah
Office Location	C4 L3
Office Phone	
Office Hours	To be determined and by appointment
E-mail	
Teaching Assistant	To be announced

Course Description	
This course deals with red meats, poultry meat and egg. It emphasizes on the structure, composition, spoilage, quality, processing and preservation of egg. It also covers the composition, processing, microbiology, spoilage, quality, formulation, curing, fermentation, cooking, and preservation of red meats and poultry meat.	
Learning Outcomes	Weights
To assess the nutrient value of processed meat products and its role in the diet	10%
To list and describe all types of processed meat product and characteristics of each products.	15%
Identify and recommend the types of meat and non-meat ingredients which would be used in various types of products, in order to formulate new product	15%
To be familiar with meat processing technologies.	10%
Explain quality differences in raw materials and the resulting effects on finished processed product quality.	15 %
Describe the functions of non-meat ingredients used in meat processing	10%
To introduce and be familiar with the storage and preservation techniques of meat and meat by-product	10%
Make recommendations regarding safe handling of processed meat products from processing plant to the final consumer	15%

Text Book & References	
Title	The meat we eat
Author(s)	J.R. Romans, W.J. Costello, K.W. Jones, C.W. Carlson and P.T. Ziegler
Publisher	
Year	

Edition	
Book Website	
References	Meat Production and Processing. R. W. Purchas, B. W. Hogg, A. S. Davies, (1989), New Zealand Society of Animal Production – Occasional Publication No. 11.

Teaching & Learning Methods
PowerPoint slides presented by the instructor and provided as soft and hard copies for students. Small group discussions and in-class activities.

Assessment		
Assessment Type	Expected Due Date	Weight
First Exam	To be determined	30%
Second Exam	To be determined	30%
Final Exam	To be determined	40%

Course Content		
Week	Topics	ref
1	Introduction and an overview of the meat processing industry, General Overview	1
2,3	Structure and growth of muscle, The growth of muscle • The structure of muscle • The composition of muscle • The conversion of muscle to meat	1
3,4	Rigor mortis, Conditioning, Ageing	1
5	Dealing with surrounding environment	1
6	Water holding capacity and pH	1
7	Non-meat ingredients	1
8	Salt, Nitrites/Nitrates, Sodium Ascorbate / Erythorbate.	1
9	Phosphates, Sugars and Sweeteners, Flavourings	1
10,11	Storage And Preservation of Meat – Temperature control. Packaging of meat, Canning	1
12,13	Processing techniques for meat products. • Raw materials, sectioned and formed meat products. •	1

	Curing, Smoking, Sausages and its types • Cookery methods for meat products	
13,14	The storage and preservation techniques of meat and meat by-product. • Make recommendations regarding safe handling of processed meat products from processing plant to the final consumer.	1

Policies	
Exams	The exams will include a variety of questions, true-false, multiple choice, fill in the blanks, and essay questions.
Cheating	Plagiarism or any other form of cheating in examinations, term tests or academic work is subject to serious academic penalty. Cheating in examinations or tests may take the form of copying from another student or bringing unauthorized materials into the exam room (e.g., crib notes or cell phones). Exam cheating can also include exam impersonation. A student found guilty of contributing to cheating in examinations or term assignments is also subject to serious academic penalty.
Attendance	Consistent with Jordan University of Science and Technology guidelines, students absent from regularly scheduled examinations because of authorized University activities will have the opportunity to take them at an alternate time. No make-up exams will be given for unexcused absences.
Participation	Participation and discussion are encouraged for earning additional points (extra credits).
Withdraw	Consistent with Jordan University of Science and Technology guidelines