



Jordan University of Science and Technology
Faculty of Agriculture
Nutrition & Food Technology Department

NF375 Food Technology

Second Semester 2022-2023

Course Catalog

3 Credit Hours. Food technology (NF 375) is designed to give students an overview of the unit food processing operations common to all types of food processing plants. Examples will be drawn from national and international food processing operations that process fruits, vegetables, poultry and meats, oil seeds and cereal grains. The course emphasis is on developing basic skills expected of all food scientists. Focus is on oral communications and critical thinking skills. New modern food technology will be conducted including irradiation, extrusion and microwave and microwave-assisted technology

Text Book

Title	Principles of Food Processing
Author(s)	Dennis Heldman & Richard Hartel
Edition	3rd Edition
Short Name	Principles of Food Processing
Other Information	

Instructor

Name	Prof. Taha Rababah
Office Location	C4L3
Office Hours	Sun : 11:30 - 12:30 Sun : 13:30 - 16:00 Mon : 15:45 - 16:00 Tue : 11:30 - 12:30 Tue : 13:30 - 14:30 Thu : 15:45 - 16:00
Email	trababah@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Sun : 10:30 - 11:30

Room: M2008

Prerequisites

Line Number	Course Name	Prerequisite Type
921031	PHY103 General Physics	Prerequisite / Pass
632750	NF275 Principles Of Food Science	Prerequisite / Study

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Introduction	From Principles of Food Processing
Weeks 2, 3	Thermal Processing principles	From Principles of Food Processing
Weeks 4, 5	Pasteurization & Blanching	From Principles of Food Processing
Weeks 6, 7, 8	Commercial Sterilization	From Principles of Food Processing
Week 9	Refrigerated Storage	From Principles of Food Processing
Week 10	Freezing and Frozen-Food Storage	From Principles of Food Processing
Week 11	Liquid Concentration	From Principles of Food Processing
Weeks 12, 13	Dehydration	From Principles of Food Processing
Weeks 14, 15	Food Extrusion	From Principles of Food Processing
Week 16	Irradiation and Microwave	and from internet From Principles of Food Processing

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Set up to learn about the principles of, and equipment for, processing of food with heat addition or removal, with deeper understanding of how different processing conditions and methods can affect the safety and quality of resulting food products. Important thermal food processing and preservation methods will be discussed. [12SLO1, 8SLO2, 5SLO3]	25%	
Identify and define key terms and explain processing and engineering principles related to addition or removal of heat in food and resulting quality. [9SLO1, 5SLO2, 13SLO3, 4SLO5]	30%	
Solve simple numerical problems associated with processing of foods, including thermal death kinetics [2SLO1, 5SLO2, 5SLO3, 4SLO4, 4SLO5]	20%	
Interpret solutions for the thermal and non-thermal processing and using two example of food modern preservation. [8SLO1, 6SLO2, 4SLO3, 7SLO5]	25%	

Relationship to Program Student Outcomes (Out of 100%)				
SLO1	SLO2	SLO3	SLO4	SLO5
30.71	23.84	26.58	4	14.87

Evaluation	
Assessment Tool	Weight
Med term Exam	35%
Final Exam	40%
Laboratory	25%

Policy	
Exams	All exams are closed book and notes. The final exam is comprehensive (covers all the material). Incomplete exams need approval from the dean of agriculture
Attendance	? Attendance at the lectures and laboratory exercises is mandatory. ? Absences should be justified and you should contact me prior the class period you will miss. ? An excessive number of absences will result not only will prevent you to complete this course, but also points deduction on your final grade.
Participation	Is necessary for the extra grades (pones)
Withdraw	According to the University policy.

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