



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

NF377 Food Microbiology

First Semester 2022-2023

Course Catalog

3 Credit Hours. Food spoilage, safety, and preservation as they pertain to the microbiology of bacteria, yeasts, and molds. Conditions favoring these microorganisms' growth, survival, and death, their immediate and long-range effects on food safety.

Text Book

Title	Modern Food Microbiology
Author(s)	J.M. Jay,.
Edition	7th Edition
Short Name	Modern Food Microbiology
Other Information	

Instructor

Name	Prof. Anas Al-Nabulsi
Office Location	C4L3
Office Hours	
Email	anas_nabulsi@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun, Tue : 08:30 - 09:30
Room: C5023

Prerequisites		
Line Number	Course Name	Prerequisite Type
962310	BT231 General Microbiology	Prerequisite / Pass
632750	NF275 Principles Of Food Science	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Microorganisms Important in Food Microbiology	
Weeks 2, 3	Factors affecting the growth, death and survival of microorganisms in foods (Intrinsic factors)	
Weeks 4, 5	Factors affecting the growth, death and survival of microorganisms in foods (Extrinsic factors)	
Week 6	Microbial spoilage of meat and meat product	
Week 7	Microbial spoilage of vegetables	
Week 8	Microbial spoilage of milk and milk products	
Weeks 9, 10	Bio-preservation technology	
Week 11	Chemical methods of food preservation	
Weeks 12, 13, 14	Physical methods of food preservation	
Weeks 15, 16	Hurdle Technology of food preservation	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Explain the interactions between microorganisms and the food environment, and the factors influencing their growth and survival. [1SLO1]	20%	
Discuss the microbiology of different types of food commodities [1SLO3]	30%	
Explain the effects of fermentation in food production and how it influences the microbiological quality and status of the food product [1SLO3]	10%	
Discuss the principles of food preservation and describe the different food preservation methods. [1SLO4]	20%	
Demonstrate the correct use of food microbiology lab procedures (i.e. bacterial stain, dilution's preparation, bacterial counts, data interpretation and pathogens detection). [1SLO2]	20%	

Relationship to Program Student Outcomes (Out of 100%)				
SLO1	SLO2	SLO3	SLO4	SLO5
20	20	40	20	

Policy	
Exam	The exam will cover all lectures as well as material covered in your laboratory manual. The exams will include a variety of questions, true-false, multiple choice, and write short 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, pagers 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	Is necessary for the extra grades (bonus)
Laboratory	Laboratory reports must be handed in. See the laboratory manual for additional information. In addition, the laboratory assignments must be handed in. Late LAB reports or assignments will not be accepted unless instructor approval is obtained in advance of the deadline
Withdraw	Consistent with Jordan University of Science and Technology guidelines

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