The Hashemite University

الجامعـــــة الهاشميـــــة

Faculty of Applied Medical Sciences

كلية العلوم الطبية التطبيقية

Syllabus: Food Safety and Quality Management (2105021740)

Second Semester 2022 /2023

COURSE INFORMATION	
Course Name: Food Safety and Quality Management **Semester**: Second 2021/2022 **Department:** Clinical Nutrition and Dietetics Sciences **Faculty:** Applied Medical Sciences	**Course Code: 2105021740** **Section:** **Core Curriculum**:
Day(s) and Time(s): Wednesday: 13:00-16:00 **Classroom:**	**Credit Hours:** 3 **Prerequisites**: None

COURSE DESCRIPTION

This course provides an in-depth study of food safety and quality management, focusing on identifying and controlling biological, chemical, and physical hazards in food. Students will learn to implement HACCP-based food safety systems, modern sterilization and disinfection techniques, and pest control methods. The course also covers Good Manufacturing Practices (GMPs), Standard Operating Procedures (SOPs), and statistical methods for quality control. By the end of the course, students will be equipped with the knowledge and skills to ensure food safety and quality in the food industry.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom based discussion
- Collaborative learning through small groups acting in an interdisciplinary context.
- Tutorial sessions through engaging students in learning activities including analyzing results in the published articles or engaging in technical skills development.
- Seminars by students who will take a leading role in the delivering a presentation, presenting a paper or discussing an idea.

FACULTY INFORMATION

Name	**Dr. Amin Olaimat**
Academic Title:	**Professor**
Office Location:	**Department of clinical nutrition and dietetics**
Telephone Number:	
Email Address:	*aminolaimat@hu.edu.jo*
Office Hours:	**Sunday, Tuesday, Wednesday** 12-1 pm *Please send an e-mail us to meet at any other time.*

REFERENCES AND LEARNING RESOURCES

Required Textbook:

1. Jay, J.M. 2005. *Modern Food Microbiology*. Aspen Publishers, Inc. Gaithersburg, Md, USA.
2. Ray, B., and Bhunia, A.K. 2014. *Fundamental Food Microbiology*, 5th Edition, CRC Press (Taylor and. Francis group), Boca Raton, FL, USA.
3. Carol A. Wallace, William H. Sperber ,Sara E. Mortimore. Food Safety for the 21st Century: Managing HACCP and Food Safety Throughout the Global Supply Chain. (John Wiley & Sons, Inc.: 2018) ISB: 9781119053569

Suggested Additional Resources:

4. Joanne M Willey, Linda M Sherwood, Christopher J Woolverton. ***Prescott's Microbiology*** (McGraw Hill: 2009) ISB: 9781259281594

Useful Web Resources: http://www.cdc.gov; http://www.fda.gov

ACADEMIC SUPPORT

The Hashemite University policy is to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their Instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section:
Tel:
Location:
Email:

Core Curriculum Learning Outcomes	Program Learning Outcomes	Course Objectives	Course Student Learning Outcomes	Assessment Method
To promote independent creative problem-solving in the context of nutritional issues.	(KP1) Possess advanced and up-to-date information in the fields of therapeutic nutrition, diets, and food safety, according to the latest developments in scientific research.	1. Develop a comprehensive understanding of theoretical principles, risk factors, and regulatory frameworks governing food safety. 2. Analyze the complexities of food safety management within international supply chains, including regulatory compliance and crisis response. 3. Investigate the epidemiology, transmission, and prevention of foodborne diseases, including emerging threats like antimicrobial resistance. 4. Apply principles of risk assessment, HACCP, and international standards (e.g., ISO 22000) to develop effective food safety management systems. 5. Evaluate food safety hazards using scientific and regulatory approaches to	CLO1: Critically evaluate key food safety concepts, including hazard identification, risk assessment, and regulatory frameworks at national and international levels. CLO2: Assess the complexities of food safety management in a globalized food system, including supply chain vulnerabilities, traceability, and regulatory harmonization. CLO3: Apply epidemiological principles to analyze foodborne disease outbreaks, develop prevention strategies, and implement public health interventions. CLO4: Design, evaluate, and improve food safety management systems based on	EXAM
	(KP2) Familiarity with advanced scientific research methodologies and creativity strategies.			
To review the scientific literature on therapeutic nutrition and food safety for practicing scientific writing.	(KP3) Demonstrate advanced knowledge of food safety principles and their application in managing foodborne diseases.			TERM PAPER
	(KP4) The ability to think critically in the field of therapeutic nutrition and food safety			
To prepare and support researchers who work on chronic illness prevention and treatment.	(SP1): Apply evidence-based nutrition and food safety information to resolve issues and apply advanced and integrated knowledge of food safety and nutrition-related health issues.			
To establish reputable nutrition departments in hospitals and other healthcare facilities.	(SP2): Design and implement innovative approaches for product development, quality control, and biological safety in food production			EXAM
	(SP3): Identify appropriate research methodology to evaluate food safety and nutrition-related medical issues.			ASSIGNMENT
To enhance experts and researchers in therapeutic nutrition and food safety for various academic institutions, research centers, and food plants.	(SP4): Write a professional and polished scientific report on therapeutic nutrition and food safety using appropriate mathematical/statistical techniques to analyze research problems.			
	(CP1): Continuous self-learning, self-assessment, and the ability to deal with and solve problems of a high degree of difficulty.			
	(CP2): Maintain ethical standards and best practices in research, product development, and public health initiatives related to nutrition and food safety.			
To help enhance food producers with experts in the field of product development, quality control, and biological safety.	(CP3): Demonstrate a high level of work ethic reflective of responsibility/commitment towards service to society based on validated study methodology for community-based nutritional status assessment.			EXAM
To disseminate food safety and nutrition-related information through various	(CP4): Lead research and multidisciplinary projects on medical nutritional therapy and food safety, work within a team, evaluate its performance and contribute to professional knowledge.			

tools, such as public and private business, marketing, and social media.	(CP5): Establish and manage reliable nutrition and food safety programs in health facilities, public health organizations, and the food industry.	enhance food production and consumer protection. 6. Develop independent inquiry skills, critically assess food safety literature, and engage in evidence-based problem-solving. 7. Strengthen the ability to communicate complex food safety issues to diverse stakeholders and develop leadership skills for industry and policy roles. 8. Explore advancements in food safety, including novel technologies, sustainability considerations, and the impact of climate change.	industry standards such as HACCP, ISO 22000, and Codex Alimentarius guidelines. CLO5: Utilize scientific and data-driven approaches to assess and mitigate food safety hazards in food production, processing, and distribution. CLO6: Independently conduct food safety research, critically evaluate scientific literature, and propose evidence-based solutions to contemporary food safety challenges. CLO7: Present complex food safety information clearly and persuasively to diverse audiences, including industry professionals, policymakers, and consumers. CLO8: Evaluate the impact of technological advancements,	

			climate change, and sustainability considerations on food safety management and policy development.	

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences.

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty. Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.

- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	Grade Weighting	Deadline Assessment
Exam 1	30%	
Term paper, Homeworks and Seminar	30%	
Final Exam (3)	40%	

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of a combination of multiple choice, short answer, match, true and false and/or descriptive questions.
Homework: Will be given for each chapter, while the chapter in progress you are supposed to work on them continuously and submit in next lecture when I finish the chapter.
You are also expected to work on in-chapter examples, self-tests and representative number of end of chapter problems. The answers of self-tests and end of chapter exercises are given at the end of the book.

Quizzes: Unannounced quizzes will be given during or/and at the end of each chapter based upon the previous lectures. It will enforce that you come prepared to the class.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

Grades are not negotiable and are awarded according to the following criteria*:

		-	-	-	
	-	-	-	-	
	-	-	-	-	

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Pass	2.50
C	Pass	2.25
C-	Fail	2.00