



Syllabus: Emerging and Evolving Foodborne Pathogens

(2105021742)

First Semester 2022 /2023

COURSE INFORMATION	
Course Name: Emerging and Evolving Foodborne Pathogens Semester: First Semester 2022 /2023 Department: Clinical Nutrition and Dietetics Sciences Faculty: Applied Medical Sciences	Course Code: 2105021742 Section: Core Curriculum:
Day(s) and Time(s): Monday: 9:00-12:00 Classroom:	Credit Hours: 3 Prerequisites: None
COURSE DESCRIPTION	
<p>Today, the evolving, emerging and re-emerging foodborne pathogens on a worldwide basis is growing increasingly complex with the many emerging social, political and demographic changes in the population, as well as dynamic changes in animal and vector populations and the environment. As a result, the rapidly growing problem of foodborne infections requires new and creative means for prevention and control because these diseases have the potential to greatly impact the social, political and economic stability of country, region or even the world. The course covers incidence, trends, epidemiology, nature of illness, growth characteristics and current detection, prevention and control methods of emerging foodborne pathogens (bacteria and their toxins, viruses, and parasites). Outbreaks of recent foodborne illness and their investigations will be discussed. Factors influencing the emergence and evolution of foodborne pathogens will also be discussed.</p>	
DELIVERY METHODS	
<p>The course will be delivered through a combination of active learning strategies. These will include:</p> <ul style="list-style-type: none"> • 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:	Associate professor
Office Location:	Department of clinical nutrition and dietetics
Telephone Number:	
Email Address:	aminolaimat@hu.edu.jo
Office Hours:	Sunday, Tuesday: 10-11, Monday 12-1 pm <i>Please send an e-mail us to meet at any other time.</i>

REFERENCES AND LEARNING RESOURCES

Required Textbook:

1. Ray, B., and Bhunia, A.K. 2014. *Fundamental Food Microbiology*, 5th Edition, CRC Press (Taylor and Francis group), Boca Raton, FL, USA.
2. IOM (Institute of Medicine). 2012. *Improving food safety through a One Health approach*. Washington, DC: The National Academies Press.

Suggested Additional Resources:

Selected review articles and websites will be provided.

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

COURSE LEARNING OUTCOMES

Number	Outcomes	Corresponding Program outcomes
Knowledge		
LO1	Describe major food-borne pathogens	PLO1
LO2	Assess the pathogenic microorganisms risk in food production	PLO1
LO3	Explain and evaluate currently available detection and surveillance processes for foodborne pathogens	PLO3
LO4	Monitor and analyze emerging foodborne diseases	PLO3
LO5	Study the factors influencing the emergence and evolution of foodborne pathogens	PLO4
LO6	Enabling students to explore and extend an extensive knowledge base and critical indebtedness of the emerging foodborne pathogens.	PLO5
LO7	Enabling students to apply the principles of evaluate currently available pathogens and the expected evolving pathogens in the future.	PLO5

LO8	Provide students with a learning environment to achieve critical thinking and independence of thought, and communication of complex ideas to a range of audiences..	PLO8
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STUDENT LEARNING OUTCOMES MATRIX*

Number	Learning Outcomes	Learning Method*	Assessment Method**
LO1	Describe major food-borne pathogens	Lecture	Assignment
LO2	Assess the pathogenic microorganisms risk in food production	Flipped class	Report
LO3	Explain and evaluate currently available detection and surveillance processes for foodborne pathogens	Lecture	Exam
LO4	Monitor and analyze emerging foodborne diseases	Lecture	Quiz
LO5	Study the factors influencing the emergence and evolution of foodborne pathogens	Lecture	Report
LO6	Enabling students to explore and extend an extensive knowledge base and critical indebtedness of the emerging foodborne pathogens.	Presentation	Term paper
LO7	Enabling students to apply the principles of evaluate currently available pathogens and the expected evolving pathogens in the future.	Presentation	Homework and exam
LO8	Provide students with a learning environment to achieve critical thinking and independence of thought, and communication of complex ideas to a range of audiences..	Presentation	Homework

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:

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 and Seminar	20%	
Homeworks	10%	
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

Classroom Participation: Oral Presentation

Element	Excellent		Satisfactory			Needs Improvement				s c o r e
	8	7	6	5	4	3	2	1	0	
Organiz ation	<ul style="list-style-type: none"> There is a logical sequence of information. Title slide and closing slide are included appropriately. 		<ul style="list-style-type: none"> There is some logical sequence of information. Title slide and closing slides are included. 			<ul style="list-style-type: none"> There is little or no logical sequence of information. Title slide and/ or closing slides are not included. 				
Slide Design (text, colors, background, illustrations, size, titles, subtitles)	Presentation is attractive and appealing to viewers.		Presentation is somewhat appealing to viewers.			Little to no attempt has been made to make presentation appealing to viewers.				
Content	<ul style="list-style-type: none"> Presentation covers topic completely and in depth. Information is clear, appropriate, and accurate. 		<ul style="list-style-type: none"> Presentation includes some essential information. Some information is somewhat confusing, incorrect, or flawed. 			<ul style="list-style-type: none"> Presentation includes little essential information. Information is confusing, inaccurate, or flawed. 				
Languag e	<ul style="list-style-type: none"> Spelling, grammar, usage, and punctuation are accurate. Fluent and effective 		There are minor problems in spelling, grammar, usage, and/or punctuation.			<ul style="list-style-type: none"> There are persistent errors in spelling, grammar, usage, and/or punctuation. Less or not fluent and effective. 				
Delivery	<ul style="list-style-type: none"> Ideas were communicated with enthusiasm, proper voice projection and clear delivery. There was sufficient eye contact with audience. There were sufficient use of other non-verbal communication skills. Appropriate delivery pace was used. 		<ul style="list-style-type: none"> There was some difficulty communicating ideas due to voice projection, lack of preparation, incomplete work, and/or insufficient eye contact. Insufficient use of non-verbal communication skills. Delivery pace is somewhat appropriate. 			<ul style="list-style-type: none"> There was great difficulty communicating ideas due to poor voice projection, lack of preparation, incomplete work, and/or little or no eye contact. No use of non verbal communication skills. Inappropriate delivery pace was used. 				
Interaction with Audience	<ul style="list-style-type: none"> Answers to questions are coherent and complete. Answers demonstrate confidence and extensive knowledge. 		<ul style="list-style-type: none"> Most answers to questions are coherent and complete. 			<ul style="list-style-type: none"> Answers to questions are neither coherent nor complete. 				

		<ul style="list-style-type: none">▪ Answers somehow demonstrate confidence and extensive knowledge.	<ul style="list-style-type: none">▪ Is tentative or unclear in responses.	
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