

Faculty : Pharmacy
Department : Clinical Nutrition & Dietetics
Academic Year : 2020-2021
Semester : Second Semester

(Course Syllabus)

Subject Name	Credit Hours	Course No.	Prerequisite	Concurrent course
Food Safety and Hygiene	3	908226	908214 (Food Microbiology)	-----

Coordinator Name	Lecturer/s	Room No.	E-mail	Course website	Office Hours
Dr. Maysoun Qutob	Dr. Maysoun Qutob	4218	m_alqutob@asu.edu.jo	http://bio.asu.edu.jo/bio/index.jsp	As shown on lecturer time table

Course description:

Introduction to hygiene, epidemiology of food-borne illnesses and food poisoning, food spoilage microorganism and significance of indicator microorganism and factors affecting the growth, survival and death of microorganisms in foods; prevalence and epidemiology of food poisoning; principles of quality control and assurance, hazard analysis of critical control points (HACCP) system implementation; hygiene requirements in food production and harvesting areas and in food establishments, with emphasis on design and construction and hygienic food handling, processing and storage and prevention of cross contamination, personal hygiene and health requirements, cleaning and disinfection and pest control management; Cook-chill products; Shelf life of food- significance of chemical, microbiological and sensory attributes; food insecurity, food legislation, standards and policies-national and international perspective.

Course Objectives

Upon successful completion of the course the student will be able to:

1. Develop and understanding of the hygiene, epidemiology of food borne illnesses and learn how to investigate food borne outbreaks.
2. Develop a detailed understanding of risks associated with chemical and physical hazards associated with food.
3. Understand the concept of hazard analysis and critical control point (HACCP) system and be able to implement the system at food establishments.

Intended Learning Outcomes

A. Knowledge and understanding:

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- A1. Understand the food safety and hygiene concept and applications as described by the Codex Alimentarius Commission of the UN.
- A2. Understand the epidemiology of food borne illnesses.
- A3. To recognize factors contributing to food borne illnesses (bacterial, fungal parasitic and viral), risks associated with chemical and physical hazards and to investigate and control food borne outbreaks.
- A4. Understand the concept of hazard analysis and critical control point (HACCP) system and be able to implement the system at food establishments..
- A5. Understand the concept of risk analysis.
- A6. Implement hygienic requirements in a food organization.

B. Subject specific skills:

- B1- Apply and analyze methods of basic hygiene practices and convey information to health workers.
- B2- Develop a detailed understanding of bacterial, fungal parasitic and viral food borne illnesses, as well as risks associated with chemical and physical hazards associated with food.
- B3- Critically evaluate current food borne disease problems, along with current food safety control strategies.

C. Cognitive and Intellectual skills:

- C1- Develop a detailed application of the Codex Alimentarius Commission hygiene requirements at stages of food chain and be able to implement them.
- C2- Able to recognize factors contributing to food borne illnesses and methods of control

D. Transferable Skills:

- D1- Gain basic hygienic information to convey to food employee as well as health workers
- D2- Apply hygienic requirements in a food organization

Teaching and Learning Methods:

Development of ILOs is promoted through the following teaching and learning methods:

ILOs	Learning Methods	Evaluation Methods
All ILOs	1. Lecture notes based on data show slides and animations. 2. Reference books	Multiple-choice questions

Course Content:

Commented [ra1]: Dates needed

Week	Date	Lecture number	Topic's Details	Ganic chemis try	Exams/ /quizes/ holiday s	Main Reference (chapter)	ILOs achieved
1& 2		4	Introduction to Food safety and food hygiene. Key terms				A1, D1

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3	2	Food safety and sanitation management, foodborne illness, roles in food safety				A2-3, B1-3
4 & 5	4	Hazards in food safety				A2-3, B1-3, C.1, C.2
6 & 7	4	Measurements in Supply chain in food industry				A3-4, B3, C.1-2
8 & 9	3	Facilities and equipment				A3-4, B3, C.1-2
9		MIDTERM EXAM				
10 & 11	4	Cleaning and sanitizing operations,				A3-4, B3, C.1-2
12	2	Environmental sanitation and maintenance				A3-4, B3, C.1-2
13 %	4	Food Safety Management Programs, HACCP				A3-4, B3, C.1-2
14	4	Food safety regulations, legislations and standards				A3-4, B3, C.1-2, D2
15	2					
16		FINAL EXAM				

Grade Distribution:

Your course grade will be determined by the following:

Assessment Method	% of Final Grade	Due Date
Midterm exam	35	To be announced
Quizzes/ assignments	15	To be announced
Final exam	50	To be announced

* Provisional dates are scheduled in the course schedule. Each instructor will announce the exact date for the quizzes of each section at the beginning of the semester.

Course Policies:

A- Attendance policies:

Attendance: Mandatory.

First warning – with _____6_____ absences

Last warning – with _____8_____ absences

Failing in the subject – with _____10_____ absences

B- Absences from exams and handing in assignments on time:

Will result in zero achievement unless health report or other significant excuse is documented.

C- Health and safety procedures: N/A

D- Honesty policy regarding cheating, plagiarism, misbehavior:

The participation, the commitment of cheating will lead to applying all following penalties together

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1. Failing the subject he/she cheated at
2. Failing the other subjects taken in the same course
3. Not allowed to register for the next semester.
4. The summer semester is not considered as a semester

E- Grading policy:

Exams and Activities.

Midterm Exam: _____ 35 _____ points

Quizzes/ Assignments _____ 15 _____ points

Final Exam: _____ 50 _____ points

Total: _____ 100 _____ points

F- Available university services that support achievement in the course:

Required equipment:

Data show, internet connection, and white board (in-campus class)

Computer/laptop, internet connection and Microsoft teams program (online class)

Make-up Exam Policy:

Make-up exams will be offered for valid reasons. They may be different from regular exams, both in content and format.

Textbook's information:

Main Reference:

1. McSwane, D., Linton, R., Rue, N. and Williams A(2010). Essentials of Food Safety Sanitation. Food Safety Fundamentals, 2nd ed.
2. Adams, M., and Motarjemi, Y. 1999. Basic Food Safety for Health Workers
3. Marwah, Kavita (1999). Food Hygiene. Gene-Tech Books, New Delhi-110 002
4. Forsythe, S.J. and P. R. Hayes. 1998. Food Hygiene, Microbiology and HACCP. Aspen Publishers, Inc, Gaithsburg

Other References

1. Anonymous (1995). A supervisor's Handbook of Food Hygiene and Safety. The Royal Institute of Public Health and Hygiene. London.
2. Cliver, D. O., ed. (1990) Foodborne Disease. Academic Press Inc. San Diego.
3. Doyle, M. P., ed. (1989) Foodborne Bacterial Pathogens. Marcel Dekker, Inc. New York.
4. Gould, W. A. (1994) CGMP's / Food Plant Sanitation. CTI Publications. INC., Baltimore.

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- Harrigan, W. F. and R. W. A. Park (1991) Making Safe Food: A management guide for microbiological quality. Academic Press, London.
- ICMSF-International Commission on Microbiological Specification for Foods (1996). Microorganisms in Foods 5: Characteristics of Microbial Pathogens is the only book to examine the characteristics of foodborne pathogens in relation to HACCP. 1996. London: Blackie Academic & Professional. ISBN: 041247350X. Available from Kluwer Publishers.
- ICMSF-International Commission on Microbiological Specification for Foods (1988). Microorganisms in Foods: Book 4. Application of hazard analysis critical control point (HACCP) system to ensure microbiological safety and quality.
- Leith, P. (1991) Food Safety: Your Questions Answered. 1st. Ed. Food Safety Advisory Centre.
- Mortimore, S. and Wallace, C. (1998) HACCP. A Practical Approach. Chapman & Hall. London.
- Troller, J. A. (1983) Sanitation in Food Processing Academic Press, New York.

No side talks during lecture

No mobile phones during lecture

Entering the lecture theatre on time as scheduled.

Homework should be done by students independently and will be asked at the exams

Course Material and Announcements

Students need to use the e-learning page at the ASU website in order to get all lecture handouts and guidelines that will be uploaded there.

In addition, course related announcements and exam results will be posted on the e-learning page and is the responsibility of each student to check the site regularly.

Name of Course Coordinator: **Dr. Maysoun Qutob**
5/3/2021

Signature:

M. Qutob

Date:

Head of curriculum committee: **Dr. Reem Abutayeh** Signature:

د. ريم ابوتايه

Head of Department: **Sofyan Maghaydah** Signature:

Sofyan Maghaydah

Dean: _____ Signature:



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Copy to:

Head of Department
Head of curriculum committee
Course File