



**Department of Environmental Health  
Spring 2019 – 2020**

**ENHL 239 - FOOD SAFETY**



**Lecturer:** Dr. Fayeز ARAJI

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**Office hours:** Tuesday from 6:30 pm – 7:30 pm (upon request)

**Course description**

This course introduces the concept of quality control in terms of quality and safety. Management of food from production to consumption (preparation, processing, preservation, storage etc...) is discussed. Implementation and appraisal of different Food quality programs are also discussed.

**Timing**

Tuesday from 4:00 pm to 6:30 pm

**Place**

Room 101

## **Course content**

### **A- Introduction**

Food Safety and Food Quality

### **B- Food composition**

- a- Carbohydrates
- b- Proteins
- c- Fat & oil products
- d- Milk & Dairy products
- e- Eggs & egg products

### **C- Food preservation & Processing**

- a- Traditional preservation techniques
- b- Emerging preservation techniques

### **D- Overview of Food Safety & Food Quality**

- a- Biological hazards in food
- b- Chemical hazards in food
- c- Physical hazards in food
- d- Food borne illness caused by biological & chemical hazards
- e- Factors that affect food borne illness

### **E- Management of Food from production to consumption**

- a- Facilities, equipment & utensils
- b- Cleaning & sanitizing operations
- c- Personal hygiene
- d- Control of infestation

### **F- Food Quality & Quality Control programs**

- a- HACCP
- b- GMP

**G- Quality control of:**

- a- Meat
- b- Dairy products
- c- Other topics will be discussed according to projects

**Learning Outcomes**

<b>Domain</b>	<b>Outcomes</b>	<b>Assessment method</b>
<b>A- Knowledge</b>	<b>Following completion of the Food Quality &amp; Control course students will be able to:</b>	
	Identify the food composition	Multiple choice questions and short answers/Questions
	Recognize different preservation techniques in the aim to maintain food quality and extend the shelf life of different products	Multiple choice questions and short answers/Questions, exercises
	Recognize different hazards in foods: physical, chemical and microbiological to ensure product safety	Multiple choice questions , short answers and questions, case studies and reading assignments
	Identify the difference between food safety and food quality	Exercises and case studies
	Recognize the effectiveness of a quality management system to ensure food safety (HACCP)	Multiple choice questions , lab work, case studies
	Apply Good Manufacturing Practices (GMP)	Short questions answers, project and case studies
	Develop a quality assurance system from farm to fork to different products (dairy, meat, cans,..)	Final Project
<b>B- Skills</b>		
Analytical skills	Collect, organize and present appropriate data in graphs, tables or figures	Case studies
Oral and written communication skills	Demonstrate oral and written communication skills	Written projects and oral presentation
Team work & project management skills	Effectively work in teams, managing time, sharing results and represent a final collaborative work	Final project

## References

- Anna McElhatton, Richard J. Marshall, (2007). Food Safety: A practical and Case Study Approach. Springer. USA.
- David McSwane, Nancy R, Rue, Richard Linton, (2005). Essentials of Food Safety and Sanitation. Pearson Prentice Hall. USA.
- Inteaz Ali, (2004). Food Quality Assurance, principles and practices. CRC Press. USA
- Norman G. Marriott, 1989. Principles of Food Sanitation, second edition. Van Nostrand Rinhold. USA.
- Vickie A. Vacklavik, Elizabeth Christian, (2003).Essential of Food Science second edition. Kluwer Academic/ Plenum publishers. USA.

## Course Evaluation

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Attendance	5 %
Mid Term	30 %
Drop Quiz	10 %
Examination 2	35%
Assignments, Projects and Presentations	20 % (5 % + 15 %)
<b>Total</b>	<b>100 %</b>

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## Exams

All covered material is equally important. Exams will be a combination of subjective and objective questions based on lectures and case studies. However, some assigned readings will be also concluded.

**Mid Term: March 10, 2020**

**Final exam:** will be at a specific date and time during the exams period.

***NB:*** there's no make up for any missed exam. The grade percentage of a missed exam will be added to the final grade.

**Attendance**

Attendance is a must based on AUB rules. Missing more than one fifth of the session of the course during the first 10 weeks of the semester and without valid reasons would result in course withdrawal. (AUB Catalogue pg 48)

**Code of conduct**

Based on the rules & regulations of AUB, any attempt of cheating or plagiarism or moral misconduct would result in actions against the student (Refer to student handbook section on Academic integrity pg 64-67)

**Enjoy your semester & Good Luck**

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**Provisional Timetable**  
**ENHL 239 – Food Quality & Control**  
**Spring 2019 – 2020**

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<b>January</b>	28	Course syllabus
<b>February</b>	4	Chapter 1: Food Safety & Food Quality & Chapter 2: Carbohydrates
	11	Chapter 3: Proteins & Chapter 4: Fat & oil products
	18	Chapter 5: Milk and dairy products
	25	Chapter 6: Eggs and egg products
		Chapter 7: Hazards to Food Safety
	3	Chapter 7 (continue): Hazards to Food Safety
		Chapter 8: Food spoilage and preservation
<b>March</b>	10	<b>Mid Term</b>
	17	Chapter 8 (continue): New preservation techniques in food
		Chapter 9: Hygiene
	24	Chapter 10: GMP
	31	Chapter 11: HACCP
<b>April</b>	7	Chapter 12: Case study: Dairy products
	14	<b>Projects' presentation</b>
	21	<b>Projects' presentation</b>
	28	<b>Make up if needed</b>
<b>May</b>	3-6	<b>Reading period</b>
		<b>Final exam</b>

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