



Course Specification

(Bachelor)

Course Title: Food Quality Management Systems

Course Code: APFQ3112

Program: Food Quality and Safety

Department: Clinical Nutrition

College: Applied Medical Sciences

Institution: Umm Al-Qura University

Version: 3

Last Revision Date: 14/8/2024

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A. General information about the course:

1. Course Identification

1. Credit hours: (3)

2. Course type

- A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
- B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (L1Y2)

4. Course General Description:

This course introduces ISO 22000 as a Food Safety Management System (FSMS), which is required for any organization in the food chain, adds a layer of assurance to the global food supply chain, allowing items to traverse borders and providing people with food they can trust. The course provides what an organization must undertake to demonstrate its ability to control food safety concerns and ensure the safety of its products.

5. Pre-requirements for this course (if any):

None

6. Co-requisites for this course (if any):

None

7. Course Main Objective(s):

To understand the management system for food safety of organizations that are involved in the food chain, regardless of their size, and to gain the knowledge and skills for implementing and maintaining an FSMS based on the principles of Hazard Analysis Critical Control Point (HACCP) that is required for all businesses in the food service sector.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	4	100
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		



3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify) Educational application	15
Total		45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify key concepts of the food safety management system	K3	Lectures Practical activities	Exams Assignments
1.2	Distinguish documentations and procedures for the ISO 22000	K3	Lectures Practical activities	Exams Assignments
...				
2.0	Skills			
2.1	Manage personnel involved in food safety	S2	Lectures Practical sessions Field visits Group activities	Exams Graded activities lab
2.2	Implement a Food Safety Management for any organization in the food chain	S3	Lectures Practical sessions Field visits Group activities	Exams Graded activities lab
...				
3.0	Values, autonomy, and responsibility			
3.1	Ability to work independently and make evidence-based decision	V1	Class discussions Case studies	Graded activities lab

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction and benefits of food safety management system	2
2.	ISO 22000:2005 Vs. ISO 22000:2018 requirements in comparison; Plan-Do-Check-Act cycle (The PDCA cycle)	2
3.	Understanding the organization and its context; Determining the scope of the FSMS; Documentation requirements of ISO 22000:2018 standard	4
4.	Sanitation standard operating procedures (SSOP) and ISO/IEC 17025 testing and calibration laboratories Integration of Quality Management Systems. <ul style="list-style-type: none"> • Product quality management – ISO 9000 and ISO 2000. • Safety management HACCP – HAZOP (Hazard and Operability Study) <ul style="list-style-type: none"> • Environmental management – ISO 14000. • Integration of QMS (Special applications). 	4
5.	Food safety policy, setting objectives of the FSMS and planning to achieve them. +Exam	2
6.	Organizational roles, responsibilities and authorities for personnel who have an impact on food safety.	2
7.	Planning, actions to address risks and planning to change	2
8.	Documentations; operational prerequisite programme (PRPs) required by the organization; Review the PRPs in place in the organization; Implement the PRPs; Monitor the PRPs	4
9.	Performance evaluation: monitoring, measurement, analysis and evaluation	2
10.	Performance evaluation: internal audits	2
11.	Performance evaluation: management review	2
12.	Continual improvement • Concepts of continual improvement • Managing for continual improvement • Methodology for continual improvement • Supporting tools and techniques for continual improvement	2
Total		30



Applications Content

No	List of Topics	Contact Hours
1.	Instructions and Documentation requirements of ISO 22000:2018 standard	1
2.	Drafting a food safety policy, set objectives of the FSMS and plan to achieve them.	1
3.	Define and communicate the roles, responsibilities and authorities for personnel who have an impact on food safety.	1
4.	Plan what to do in case of emergency situations and potential incidents; Develop, implement and test plans for the withdrawal/recall of products	1
5.	Manage staff skills/competencies; Using externally developed elements for the organization's FSMS; Control the externally provided processes, products or services;	1
6.	Establish and maintain external and internal communications+ Midterm Exam	1
7.	Control monitoring and measuring (operational processes)	1
8.	Conducting a verification related to the PRPs and hazard control plan	1
9.	Develop methods or a system for product traceability	1
10.	Food safety audits and common non-conformance's in audit	1
11.	How to avoid and audit case scenarios; Conduct an internal audit of the functioning of the organization and the activities having an impact on food safety	1
12.	Supplier and Raw Material Approval and Performance Monitoring ensure that all ingredients meet the necessary quality and safety standards.	1
13.	Evaluate the overall performance of the organization and decisions made to improve the FSMS: management review	1
14.	Corrective and Preventive Actions and Control of Non-Conforming Product	1
15.	Complaint Handling	1
Total		15

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam	6th	25%
2.	Assignments and lab activities	All weeks	15%
3.	Practical assessments	All weeks	20%
4.	Final exam	12th	40%
...			

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources





Essential References	<p>Hal King, Food Safety Management Systems Achieving Active Managerial Control of Foodborne Illness Risk Factors in a Retail Food Service Business, Springer, 2020 https://doi.org/10.1007/978-3-030-44735-9</p> <p>Alli, I. (2003). Food Quality Assurance: Principles and Practices (1st ed.). CRC Press. https://doi.org/10.1201/9780203484883</p>
Supportive References	<p>ISO 22000:2018(en) Food safety management systems — Requirements for any organization in the food chain https://www.iso.org/standard/65464.html https://www.iso.org/obp/ui/#iso:std:iso:22000:ed-2:v1:en</p> <p>ISO 22000:2018 - FOOD SAFETY MANAGEMENT SYSTEMS A PRACTICAL GUIDE https://www.iso.org/publication/PUB100454.html</p> <p>Okpala, Charles Odilichukwu R., and Małgorzata Korzeniowska. "Understanding the relevance of quality management in agro-food product industry: From ethical considerations to assuring food hygiene quality safety standards and its associated processes." Food Reviews International 39.4 (2023): 1879-1952. https://www.foodsafety.gov/keep/government/inspections/index.html https://www.fda.gov/default.htm</p>
Electronic Materials	
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	classroom
Technology equipment (projector, smart board, software)	Data show; smart board
Other equipment (depending on the nature of the specialty)	Monitors and wireless internet connection

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct
Effectiveness of Students assessment	Students	Direct
Quality of learning resources	Peer reviewer	Indirect





Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	Peer reviewer	Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Umm Al-Qura University Council
REFERENCE NO.	851141114462/190392
DATE	22/11/1446

