هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

Course Specifications

Course Title:	**Food Hygiene and Safety**
Course Code:	**2063102-2**
Program:	**Bachelor in Food Science and Nutrition**
Department:	**Food Sciences and Nutrition Department**
College:	**College of Science**
Institution:	**Taif University**

Table of Contents

A. Course Identification

1. Credit hours: 2 Hours
2. Course type **a.** University ☐ College ☐ Department √ Others ☐ **b.** Required √ Elective ☐
3. Level/year at which this course is offered: 8th Level/3rd year
4. Pre-requisites for this course (if any)**: Food Microbiology (2062204-3)**
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	√	**100%**
2	**Blended**	--	--
3	**E-learning**	--	--
4	**Distance learning**	--	--
5	**Other**	--	--

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	**30**
2	**Laboratory/Studio**	--
3	**Tutorial**	--
4	**Others** (specify)	--

B. Course Objectives and Learning Outcomes

1. Course Description

This course deals with studying the sources of microbial and non-microbial contamination of foods - Factors affecting the microbial growth- food borne illness -Sanitation of food processing and storage buildings- Sanitation of food processing machineries and equipment-Cleaning and sanitation of food processing plants- Personal hygiene of personnel dealing with foods-Pest control- Sanitary disposal of wastes of food processing plants –Hygienic and biosafety measures within the food (Meat, Vegetables , Milk …etc.) processing factories.

2. Course Main Objective

- Be familiar with food safety hazards, assessment of risk, and evaluation.
- Outline the main sources of microbial and chemical contamination of foods.
- Establish the sanitation measurements for building of food processing and storage.

3. Course Learning Outcomes:

	CLOs	Aligned PLOs
1	**Knowledge and understanding**	
1.1	Summarize the importance of food safety in food production chains.	**K2**
1.2	Identifies the common sources of chemical, physical and biological hazards and Describes the main sources of cross-contamination of food and effective control steps to prevent it to reduce hazards.	**K3**
2	**Skills:**	
2.1	Identify integrated pest management (IPM) steps and evaluate applied preventive actions and effectiveness of the overall pest control program and Evaluate applied procedures for selection and monitoring of food suppliers and justified this	**S3**

CLOs		Aligned PLOs
	procedure by hazard assessment.	
3	**Values:**	
3.1	Committed the learning process and the continuous development of personal and professional skills.	**V1**
3.2	Adapted with computer and the internet facilities to aware the updated information related to food safety.	**V2**

C. Course Content:

No	List of Topics	Contact Hours
1	Introduction in Definition of food safety and contamination.	3
2	Sources of food contamination (Microbial sources and non-microbial sources)	3
3	Microbial foodborne hazards (foodborne pathogens): Bacterial & Viral & Fungal & Parasitic.	3
4	Non-microbial foodborne hazards: Allergens & Chemical residues & Radio actives.	3
5	Cleaning and Sanitizing: *Definition of cleaning compounds. *Characteristics and classification of cleaning compounds. *Selection of cleaning compounds suitable for application in food processing plants. *Definition of sanitization and sanitizers. *Classification of sanitization procedures (physical and chemical).	6
6	Personal hygiene of personnel dealing with foods.	3
7	Pest control.	3
8	Sanitary disposal of wastes of food processing plants: (Liquid wastes & Solid wastes).	3
9	Hygienic and biosafety measures in food processing plants: *Dairy processing plants. *Meat and poultry processing plants. *Fish and seafood's processing plants. *Fruit and vegetable processing plants.	3
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**		
1.1	Recognizes the importance of food safety in food production chains.	Lecture.	Short Quiz
1.2	Identifies the common sources of chemical, physical and biological hazards.	Lecture - Practical demonstrations	Written exam
2.0	**Skills**		
2.1	Evaluate control measures for biological, chemical and physical hazards associated with food safety.	Discussion	Written exam
3.0	**Values**		
3.1	Committed the learning process and the continuous development of personal and professional skills.	Practical lessons	Practical exam

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.2	Participate ethically in accordance with the highest ethical standards in public attitudes and personal and operate the computer and the internet facilities to collect the new information in this field.	Divide into small groups	Group Presentation

2. Assessment Tasks for Students:

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, term paper, oral presentations, and interaction during lectures.	Continues	10%
2	Midterm exam	5-6	30%
3	Periodical short exams	8	10%
4	Final exam	12	50%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- There are 6 h per week for this purpose and the students know these hours according to the time of professor who teach the course.
- Student satisfaction surveys are conducted for academic guidance.
- Develop an improvement plan for academic guidance based on the results of the questionnaire analysis.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	1) Norman G. Marriott (2010): Principles of Food Sanitation (Food Science Texts Series) 4th Edition. Springer Science, Business Media Inc. 2) Marriott and Gravani, Springer, New York, NY: Principles of Food Sanitation, 5th Ed., Found at: http://www.amazon.com or the UF Campus Bookstore.
Essential References Materials	Journal of Food Safety and Food Quality.
Electronic Materials	http://www.inderscience.com/jhome.php?jcode=ijfsnph https://journal-food-safety.de/
Other Learning Materials	Computer.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	- Classroom (capacity not more than 40 students) for 3 h/week. - One lab enough for 30 students.
Technology Resources (AV, data show, Smart Board, software, etc.)	- Data Show projectors, smart blackboard. - Computer Portable PowerPoint presentations to special lectures.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	- Samples of incubators, microscopes, water bath, autoclaves, HPLC, atomic absorption spectrophotometer

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students, faculty, program leaders and Peer Reviewer	• Continuous monitoring by directors of program and quality assurance unit (Direct). • Applying Questionnaires received from the Deanship of Academic Development for Student evaluation (indirect). • Evaluation of course report (indirect).
Extent of achievement of course learning outcomes	Students, faculty, program leaders and Peer Reviewer	• Applying Questionnaires for Student evaluation (indirect). Evaluation of course report (indirect).
Quality of learning resources	Faculty, program leaders, administrative staff, independent reviewers.	• Continuous monitoring by directors of program and quality assurance unit (Direct). • Applying Questionnaires for Student evaluation (indirect). Evaluation of course report (indirect).

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	**Department council - Academic Development Committee**
Reference No.	**Department council NO: 2 Subject NO: 1**
Date	**30 /02 /1444 H**

علوم الغذاء والتغذية
Food Science and Nutrition Department
TU جامعة الطائف TAIF UNIVERSITY