



**ATTACHMENT 2 (e)**

**Course Specifications**

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation & Assessment**

**FSN 325**

**Sanitation and Food Safety**

**Course Specifications  
(CS)**



## Course Specifications

Institution : King Saud University	Date of Report / / 1435
College/Department : <b>College Food and Agricultural Sciences / Food Science and Human Nutrition</b>	

### A. Course Identification and General Information

1. Course title and code: <b>Sanitation and Food safety / Code : FSN 325 Section: 43824</b>		
2. Credit hours : <b>2 credits</b>		
3. Program(s) in which the course is offered: <b>Food Science and Nutrition (College of Food and Agricultural Sciences) / Community Health Sciences (The College of Applied Medical Sciences (CAMS))</b> (If general elective available in many programs indicate this rather than list programs)		
4. Name of faculty member responsible for the course: <b>Dr. Nasser Abdullatif AlShabib</b>		
5. Level/year at which this course is offered <b>Sixth / Three</b>		
6. Pre-requisites for this course (if any): <b>Food microbiology FSN 321</b>		
7. Co-requisites for this course (if any): <b>No</b>		
8. Location if not on main campus		
9. Mode of Instruction (mark all that apply)		
a. Traditional classroom	<input type="text" value="8"/> hat percentage?	<input type="text" value="61.53"/>
b. Blended (traditional and online)	<input type="text" value="2"/> What percentage?	<input type="text" value="15.38"/>
c. e-learning	<input type="text" value="2"/> hat percentage?	<input type="text" value="15.38"/>
d. Correspondence	<input type="text" value="1"/> hat percentage?	<input type="text" value="7.69%"/>
f. Other	<input type="text"/> hat percentage?	<input type="text"/>
Comments:		



## B Objectives

<p>1. What is the main purpose for this course? The main purpose of the course is for the students to:</p> <ul style="list-style-type: none"> <li>• Understand the elements of food quality</li> <li>• The major components of the food safety system</li> <li>• Understand the foundations of food safety systems such as Good Manufacturing Practices</li> <li>• Know the risks of chemical, physical and biological associated with food</li> <li>• Measures the food safety at all manufacturing steps</li> <li>• Know the main steps of methods followed the investigation of food poisoning incidents</li> <li>• Be able to develop a plan for inspection of food establishments.</li> <li>• Know how methods used for the inspection of food establishments in the manner and style of writing report</li> <li>• Understand the regulations and government rules on food safety.</li> <li>• Deploy ways to achieve food safety within the population.</li> </ul>
<p>2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field) The following set of measures were implemented to improve the course:</p> <ul style="list-style-type: none"> <li>- A personal home page that contains more information about the course was developed.</li> <li>- Periodically, the scheduled lectures were reviewed and presentation methods were updated.</li> <li>- Workshops were held to train students on the mechanism of health inspection in food establishments.</li> </ul>

## C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached)

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact Hours
- Sanitation and food safety concept	0.5	1



- Definition of health hazards related to food	0.5	1
- Basic principles of food safety	1	2
- Microbial hazards	1	2
- Cleaning and disinfection in food establishments	1.5	3
- Health requirements Building( Location, Walls, Floors, Lighting,...etc. ). - Equipment's - Workers (personal hygiene, health certificates....etc.,)	3	6
- Water in food establishments	1.5	3
- Pests in food establishments	1	2
- Waste treatment process in food establishments	1	2
- Health inspection in food establishments	1	2
- Investigate cases of food poisoning	1	2
- HACCP System Application in Food Establishments	1	2



2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	28	N/A	N/A	N/A		26
Credit	2	N/A	N/A	N/A		2

3. Additional private study/learning hours expected for students per week.	2 Hours
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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy
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Course Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning, assessment, and teaching.

The **National Qualification Framework** provides five learning domains. Course learning outcomes are required. Normally a course has should not exceed eight learning outcomes which align with one or more of the five learning domains. Some courses have one or more program learning outcomes integrated into the course learning outcomes to demonstrate program learning outcome alignment. The program learning outcome matrix map identifies which program learning outcomes are incorporated into specific courses.

On the table below are the five NQF Learning Domains, numbered in the left column.

**First**, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. **Fourth**, if any program learning outcomes are included in the course learning outcomes, place the @ symbol next to it.

Every course is not required to include learning outcomes from each domain.



	<b>NQF Learning Domains And Course Learning Outcomes</b>	<b>Course Teaching Strategies</b>	<b>Course Assessment Methods</b>
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1</b>	<b>At the end of the semester, students should know how to: Define</b> terms associated with the food safety and sanitation.	Lectures	Quiz
1.2	<b>List</b> health hazards associated with foods	Lectures	Quiz
1.3	<b>Summarize</b> key points in the prevention of food borne illness.	“	Quarterly exam
1.4	<b>Define</b> food inspection systems and describe obvious foodborne diseases epidemiology	“	Discussion
1.5	<b>Point out</b> common food allergens.	“	Quarterly exam
1.6	<b>Discuss</b> issues associated with emerging pathogens.	“	Final Exam and Discussion
1.7	<b>Recognize</b> food premises sanitation	Practical	
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1	Describe food safety management systems. Prerequisite food Safety Programs and active Managerial Control	Training	Homework assessment
2.2	Identify the seven HACCP principles and their approach	Training	Applied assessment
2.3	Describe and developing a plan for crisis management. Prepare a response and plan for recovery and assessments	Practical training (field visits)	Evaluation reports about solve the problems
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
3.1	By now, students have good degree of assessment of food poisoning	Working independently and in groups	Individual performance within in groups.
3.2	Students can demonstrate ability to plan for bacterial outbreak prevention	Homework	Presentation
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
4.1	Students should interpret reports related to public health and assess their effect on public health	Homework activity	written reports
<b>5.0</b>	<b>Psychomotor</b>		
5.1	Apply personal hygiene by avoiding the spread of harmful bacteria when handling food.	Training	Open discussion



**Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching**

NQF Learning Domains	Suggested Verbs
<b>Knowledge</b>	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write
<b>Cognitive Skills</b>	estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise
<b>Interpersonal Skills &amp; Responsibility</b>	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write
<b>Communication, Information Technology, Numerical</b>	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize
<b>Psychomotor</b>	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct



Suggested **verbs not to use** when writing measurable and assessable learning outcomes are as follows:

Consider	Maximize	Continue	Review	Ensure	Enlarge	Understand
Maintain	Reflect	Examine	Strengthen	Explore	Encourage	Deepen

Some of these verbs can be used if tied to specific actions or quantification.

**Suggested assessment methods and teaching strategies are:**

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Duties and Other Activities	At intervals	6%
2	First quarterly exam	4-5	15%
3	Second quarterly exam	8-9	15%
4	Report of the field visit	12-13	14%
5	Final exam	End of semester	50%





#### D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Office hours (2-3 hours /week)
- Personal E-mail
- Office telephone.

#### E. Learning Resources

1. List Required Textbooks

Al-Mohizaea, I.S., Al-Behairy M.M. (1997). Health Affairs of Food. King Saud University, Publisher.

2. List Essential References Materials (Journals, Reports, etc.)

3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)

4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)

- Personal home pages

- Some sites on electronic networks in terms of food safety

[http://www.who.int/foodsafety/publications/capacity/en/Englih\\_Guidelines\\_Food\\_control.pdf](http://www.who.int/foodsafety/publications/capacity/en/Englih_Guidelines_Food_control.pdf)

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

- Standard specifications for food safety
- Regulations and food safety issued by the Ministry of Municipal and Rural Affairs

#### F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

- Classroom equipped with a display port (Data show), Screen, laptop computer, - Network connection

- Cameras- Thermometers- pH Meter to measure acidity,

- Instruments for measuring the quality of frying oil



2. Computing resources (AV, data show, Smart Board, software, etc.)

- Computers
- Data show
- Smart board

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

- Rapid microbiological detection toxin kits
- Rapid pest detection at inspection stations.

### G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching

At the end of the semester, a standard questionnaire is distributed to students. The data is administered by the department quality assurance committee, analyzed, and returned back to the faculty

2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor

The course is reviewed by the program every five years for improvement and coordination.

3. Processes for Improvement of Teaching

- Determine the degree of student awareness of the field of food microbiology and link course theory to research in an active environment.
- Improve students' metacognitive and group interaction skills by introducing new teaching methods such as group discussion, class participation, and by case study projects.



4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

-Internship supervisors of students during industrial training are requested to evaluate their performance.

-Students' assignments can be evaluated by external examiners from different institutions or from within the department.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- The course material and learning outcome are periodically reviewed and the change to be taken in the departmental and higher councils.

- The Chairman of the department and faculty members take the responsibility.

Faculty or Teaching Staff: \_\_\_\_\_

Signature: \_\_\_\_\_ Date Report Completed: \_\_\_\_\_

Received by: \_\_\_\_\_ Dean/Department Head

Signature: \_\_\_\_\_ Date: \_\_\_\_\_