



ATTACHMENT 2 (e)

Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

**Course Specifications
(CS)**



Course Specifications

Institution: College of Food Science and Agriculture	Date of Report: 28/01/2014
College/Department: Food Science and Nutrition	

A. Course Identification and General Information

1. Course title and code: Quality Control and Sensory Evaluation of Food; Code # FSN456		
2. Credit hours: 2 (1+1)		
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)		
4. Name of faculty member responsible for the course: Elfadil Elfadl Babiker and Amin Abuelkhair		
5. Level/year at which this course is offered: level 6		
6. Pre-requisites for this course (if any): Food Processing and Preservation (FSN 352).		
7. Co-requisites for this course (if any)		
8. Location if not on main campus		
9. Mode of Instruction (mark all that apply)		
a. Traditional classroom	✓ What percentage?	<input type="text" value="10"/>
b. Blended (traditional and online)	✓ What percentage?	<input type="text" value="30"/>
c. e-learning	✓ What percentage?	<input type="text" value="60"/>
d. Correspondence	<input type="text"/> What percentage?	<input type="text"/>
f. Other	<input type="text"/> What percentage?	<input type="text"/>
Comments: Usually we change the instruction mode from e learning when the class room computer had a defect.		



B Objectives

<p>1. What is the main purpose for this course?</p> <p>On successful completion of this course, it is expected that students will be able to:</p> <ol style="list-style-type: none"> 1. Apply principles of quality assurance and quality management systems in the food manufacturing and distribution to produce foods that would meet quality and legal requirements. 2. Appraise principles of statistical control techniques to assure the quality of food. 3. Apply a particular sensory test for evaluation of quality of food. 4. Recall food standards code as applicable to a particular food group.
<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).</p> <p>The plans for developing and improving the course are usually considered by making amendments in the course content based on the results of new research in this field. Moreover, recent references and the style of e-learning are considered.</p>

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
Introduction to quality control	1	1
Quality control terminologies	1	1
Quality aspects and their measurement	1	1
Food regulation in the Kingdom	1	1
Quality management systems (ISO)	2	2
Statistical quality control methods	4	4
Purpose and applications of sensory evaluation in food	1	1
Quantitative overall and attribute difference tests	2	2
Affective tests (consumer tests)	1	1
Descriptive analysis methods	1	1



2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	15			30		45
Credit	2					2

3. Additional private study/learning hours expected for students per week.	non
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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.



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Know the basic definitions of quality control terms.	Lectures, tutorials and independent study assignments.	15 minute multiple choice test on content on completion of each topic with results carrying 20% of final assessment. Multiple choice knowledge items on final exam.
1.2	Understand the basic rules and regulations regarding foods in Kingdom of Saudi Arabia.		
1.3	Use the management systems to control fresh and processed food.		
1.4	Realize the basic definitions of different sensory methods.		
1.5	Understand and develop new methods of understanding the effect of statistics in food quality control.		
1.6	Understand the principles of consumer tests and preferences.		
1.7	Understand descriptive analysis methods.		
2.0	Cognitive Skills		
2.1	Capable of visually recognizing the source of high quality food.	Explanations and examples given in lectures and practiced under supervision in laboratory. Transfer of learning encouraged by use of analytical tools in different applications and through discussion of potential application in other areas. Assignment tasks include some open ended tasks designed to apply predictive, analytical and problem solving skills.	Quizzes questions carrying 30% of mark on tests given at the end of each topic and on end of semester examination. Group and individual assignments.
2.2	Determine via instrumental analysis fresh or processed food sources.		
2.3	Identify and describe different nutritional value and safety of fresh or processed food.		
2.4	Describe and apply statistical analysis to fresh or processed food quality.		
2.5	Decide the proper way of sampling food.		
2.6	Prepare and analyze a technical report using statistical analysis		
3.0	Interpersonal Skills & Responsibility		
3.1	Apply principles of quality assurance and quality management systems in the food	One group assignment in which 25% of assessment	Assessment of group assignment includes component for individual



	manufacturing and distribution to produce foods that would meet quality and legal requirements.	is based on individual's contribution to the group task. Two individual assignments requiring investigation using internet and library resources as a means of developing self-study skills. Role play exercise on controversial issue relevant to the course based on a case study, with discussion in tutorial of appropriate responses and consequences to individuals involved.	contribution. Capacity for independent study assessed in individual assignments.
3.2	Appraise principles of statistical control techniques to assure the quality of food.		
3.4	3. Apply a particular sensory test for evaluation of quality of food.		
3.5	4. Recall food standards code as applicable to a particular food group.		
4.0	Communication, Information Technology, Numerical		
4.1	The student will be able to operate a quality system for any food plant	Student assignments require good standards of use of ICT. Special remedial instruction. Student essay assignments require proper style and referencing format.	Test questions require interpretation of simple statistical information. Assessments of students assignment and project work include expectation of adequate use of numerical and communication skills. Five percent of marks allocated for standard of presentation using ICT.
4.2	The student will be able to evaluate the quality of food from farm to fork.		
5.0	Psychomotor		
5.1			
5.2			

Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching

NQF Learning Domains	Suggested Verbs
Knowledge	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write
Cognitive Skills	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
Interpersonal Skills & Responsibility	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write
Communication, Information Technology, Numerical	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize



Psychomotor	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct
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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	Quizzes	Every two weeks	10%
2	Mid-term examination	Week 7	10%
3	Reports	Weekly	10%
4	Discussions	Not usual	
5	Practical	Week 8 and 14	20%
6	Attendance	Weekly	10
7	Final examination		40%



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)

E. Learning Resources

1. List Required Textbooks

1. Guidelines for sensory analysis in food product development and quality control (2nd ed.).Carpenter, R. P., Lyon, D. H., & Hasdell, T. A. (2000).NY: Springer Publishers.
2. Statistical quality control for the food industry. Hubbard, M. R. (1996).NY: Chapman and Hall.
3. A guide to food quality assurance Sumner, J. (1995).by M&S Consultants Pty Ltd, the Moorings, Deviot, 7275, Australia.
4. Erly, R. 1995. Guide to Quality Management Systems for the Food Industry.
5. Hubbard, M. D. 1990. Statistical Quality Control for the Food Industry.
6. Meilgaard et al. 1999. Sensory Evaluation Techniques. 3rd Ed.

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.)

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

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.)



2. Computing resources (AV, data show, Smart Board, software, etc.)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching Confidential completion of standard course evaluation questionnaire. Focus group discussion with small groups of students.
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor Observations and assistance from colleagues, independent assessment of standards achieved by students, independent advice on assignment tasks.
3 Processes for Improvement of Teaching Conduction of workshops on teaching methods, review of recommended teaching strategies.
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)
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Faculty or Teaching Staff: Elfadil E Babiker and Amin AbuelKhair

Signature: _____ **Date Report Completed: 30.01.2014**
Received by: _____ **Dean/Department Head**

Signature: _____ **Date:** _____