

## Course Syllabus

1	<b>Course title</b>	Sensory Evaluation of Foods
2	<b>Course number</b>	0603930
3	<b>Credit hours (theory, practical)</b>	3
	<b>Contact hours (theory, practical)</b>	3
4	<b>Prerequisites/corequisites</b>	
5	<b>Program title</b>	Food Science and Technology
6	<b>Program code</b>	032
7	<b>Awarding institution</b>	The University of Jordan
8	<b>School</b>	Agriculture
9	<b>Department</b>	Nutrition and Food Technology
10	<b>Level of course</b>	Doctorate level program (Graduate studies course)
11	<b>Year of study and semester (s)</b>	
12	<b>Final Qualification</b>	PhD
13	<b>Other department (s) involved in teaching the course</b>	None
14	<b>Language of Instruction</b>	English
15	<b>Date of production/revision</b>	29/12/2019

### 16. Course Coordinator: Prof. Mohammed Ismael Saleh

Office numbers, office hours, phone numbers, and email addresses should be listed.						
<b>Office hours</b>						
<b>Day/Time</b>	<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	
<b>Day</b>						
<b>Time</b>	<b>10:00 – 12:00</b>	<b>11:00-12:30</b>	<b>9:00 – 12:00</b>	<b>11:00-12:30</b>		

### 17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.						
<b>Office hours</b>						
<b>Day/Time</b>	<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	
<b>Day</b>						
<b>Time</b>	<b>10:00 – 12:00</b>	<b>11:00-12:30</b>	<b>9:00 – 12:00</b>	<b>11:00-12:30</b>		

### 18. Course Description:

A survey of advanced sensory evaluation techniques, including consumer and descriptive testing, available to food scientists is presented. Multivariate statistical analysis techniques such as principal components analysis, cluster analysis and partial least squares regression are used to solve product development problems. The course is project oriented and applies the principles of preference mapping and consumer segmentation to product optimization.

## 19. Course aims and outcomes:

This course is designed for graduate students destined to careers in the food industry. The course deals with the fundamentals of consumer led product development. Students will develop an understanding of quantitative consumer research and be exposed to multivariate statistical techniques.

Successful completion of the course should lead to the following outcomes:

**A. Knowledge and Understanding:** Student is expected to

- A1. Understand the proper conditions needed for conducting the sensory evaluation tests
- A2. Understand the recognition tests for taste, odor and aroma, additional sensation, threshold tests, difference, preference and descriptive sensory methods
- A3. Understand how to apply the different statistical methods (ANOVA, special tables, and special computer programs) to the obtained sensory results.
- A4. Understand the different sensory programs i.e. comprehensive descriptive method, in-out method, difference from control method

**B. Intellectual Analytical and Cognitive Skills:** Student is expected to

- B1- Describe the food sensory evaluation protocol.
- B2- Develop a detailed understanding regarding the recognition tests for taste, odor and aroma, additional sensation, threshold tests, difference, preference and descriptive sensory methods
- B3- To be knowledgeable with the different sensory programs i.e. comprehensive descriptive method, in-out method, difference from control method

**C. Subject- Specific Skills:** Students is expected to

- C1- Apply and analyze the food sensory evaluation protocol
- C2- Applicable for solving problems associated with food production by applying food sensory evaluation

**D. Transferable Key Skills:** Students is expected to

- D1-Gain basic knowledge related to the food sensory evaluation protocol
- D2- Know how to apply the different sensory evaluation method
- D3- To get familiar with the different sensory programs.

## 20. Topic Outline and Schedule:

Content	Reference	Week	ILO/s
Introductions, syllabus, class projects, course structure, group formation		1	A1
Methods in Consumer Science I		2	A1, B1
Methods in Consumer Science II		2	A3, B2
Internal Preference Mapping		3	B1
External Preference Mapping		4	A2, A3, B
Extensions to Preference Mapping		5	A3, C
Group I & II Project Outline, student presentation, group discussion		6	B1
Extensions to Preference Mapping		7	B1, C
Probabilistic Unfolding		8	C

Descriptive analysis	9	C1, C2
Consumer testing	10	C1, C2
Consumer Segmentation	11	A, B, C, D
Case Study on Product Optimization	12	A
Application of MARS to preference mapping	13	A, B
Data analysis/ group projects	13	B1
Data analysis group projects	13	A3, B2
Analysis of Just About Right Data I	14	A2, A3, B1, B2
Analysis of Just About Right Data II	14	A3, B1, B2
Group I Presentation	15	C
Group II Presentation	15	A4, B3

### 21. Teaching Methods and Assignments:

Three 50-min lectures. Additional time required for group project planning and execution. Students will be assigned readings in the text, homework problems and a group project. All written assignments may be submitted either on paper or electronically. Students are encouraged to consult their peers. However, the assignments submitted should consist of their own work.

### 22. Evaluation Methods and Course Requirements:

All assignments, projects and exams will be expected to be of professional quality. No late assignments will be accepted without prior approval from the instructor. Late assignments will be penalized by deducting 20% of the points per late day.

### 23. Course Policies:

Students and instructors each have an important role in maintaining a classroom environment optimal for learning, and are expected to treat each other with respect during class, using thoughtful dialogue, and keeping disruptive behaviours to a minimum. Class discussions are interactive and diverse opinions will be shared; please be thoughtful in sharing your perspectives and responses with one another. Other behaviours that can be disruptive are chatting and whispering during class, the use of electronic equipment, preparing to leave before class is over, and consistently arriving late to class. Please keep these disruptions to a minimum. Inappropriate behavior in the classroom may result in a request to leave the class and/or subject to penalty. Attendance at the lectures is mandatory. Absences should be justified and you should contact the instructor prior the class period you will miss. An excessive number of absences will result in point deduction on your final grade.

### 24. Required equipment: (Facilities, Tools, Labs, Training....)

Classroom facilities

**25. References:**

<p><b>Learning Resources</b></p> <p>Required text (s)</p> <ol style="list-style-type: none"><li>1. Meilgaard, M., Civille, G.V. and Carr, T.B. 1999. Sensory Evaluation Techniques. 3<sup>rd</sup> ed. CRC Press Boca Raton New York. ISBN 0-84930-276-5</li><li>2. Meullenet, Xiong and Findlay 2007. Multivariate and Probabilistic Analyses of Sensory Science Problems, IFT Press, Blackwell Publishing, Ames Iowa</li></ol> <p>Recommended references</p> <ol style="list-style-type: none"><li>1. Nas, T., Brockhoff, P.B. and Tomic, O. 2010. Statistics for Sensory and Consumer Science. Printed and bound in the United Kingdom by Antony Rowe Ltd, Chippenham, Wiltshire. ISBN (Hbk) 9780470518212</li><li>2. Lawless, H. T., and Heymann, H. 2010. Sensory Evaluation of Food Principles and Practices Second Edition. Springer New York Dordrecht Heidelberg London. ISBN 978-1-4419-6487-8 e-ISBN 978-1-4419-6488-5</li><li>3. Kemp, S.E., Hollowood, T. and Hort, J. 2009. Sensory Evaluation A practical handbook. Wiley-Blackwell. ISBN: 978-1-4051-6210-4</li></ol>
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**26. Additional information:**

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Name of Course Coordinator: **Prof. Mohammed Ismael Saleh** Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----