

Course Syllabus

1	Course title	Principles of Food and Nutrition
2	Course number	0603101
3	Credit hours (theory, practical)	3 hrs (theory)
	Contact hours (theory, practical)	3 hrs/ wk
4	Prerequisites/corequisites	0603231 or 0603322
5	Program title	Food Science and Technology
6	Program code	042
7	Awarding institution	The University of Jordan
8	School	Agriculture
9	Department	Department of Nutrition and Food Technology
10	Level of course	1st year
11	Year of study and semester (s)	2019, Fall, spring and summer semesters
12	Final Qualification	BSc
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English and Arabic
15	Date of production/revision	Nov., 2019

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.

Prof Maher Al-dabbas (course coordinator)

17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

Dept head office, Ex. 22422 email; m.aldabbas@ju.edu.jo

Office hrs: every day 13-14

18. Course Description:

Introduction to the nutrients with respect to classification; dietary sources, functions and body requirements; the concept of balanced diet; the aetiology and management of malnutrition. Introduction to types and causes of food spoilage, food preservation and food-borne diseases, emphasizing the status of nutrition and food industries in Jordan.

19. Course aims and outcomes:

<p>A- Aims:</p> <ol style="list-style-type: none"> 1. To acquire a basic knowledge of nutrition and food science and their relationship to human health. 2. To acquire a basic understanding of nutrients regarding chemical structure, food sources, functions, allowances, deficiency symptoms and their role in energy metabolism. 3. To be familiar with the concept of balanced diet, food groups and their nutritional significance and current dietary guidelines for healthy eating. 4. To develop an essential understanding of the scope of food science and technology, and identify and define the causes of food spoilage and why foods are processed . <p>B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to</p> <p>A. Knowledge and Understanding: Student is expected to</p> <p>A1- Describe the objectives of the study of food sciences and nutrition</p> <p>A2- Familiar with the structure, composition, metabolism, RDI and nutritive value of different nutrients in food..</p> <p>A3- To be familiar with food spoilage, food-borne diseases regarding causes, symptoms and prevention</p> <p>A4- To acquire a fundamental background of the methods of food preservation emphasizing heat applications, low temperature methods, water activity control, and use of chemicals.</p> <p>B. Intellectual Analytical and Cognitive Skills: Student is expected to</p> <p>B1- Choose the most appropriate method for preservation of different food.</p> <p>B2- Select, store and handle foods appropriately.</p> <p>B3. Have knowledge about the effect of processing on the quality of final products.</p> <p>B4- Familiar with healthy food, nutrients, food groups and nutrition facts.</p> <p>C. Subject- Specific Skills: Students is expected to</p> <p>C1- Understand nutrients metabolism, body needs, food quality and preservation techniques.</p> <p>C2- Understanding proximate analysis of food, Major and minor nutrients, food borne-illness</p> <p>C3- Understanding food spoilage and preservation methods</p> <p>D. Transferable Key Skills: Students is expected to</p> <p>D1- Adopt safe and hygienic practices in food handling and preservation</p> <p>D2- Evaluate the quality of purchased food using sensory methods.</p> <p>D3- Adopt the science of food and nutrition.</p> <p>D4- Promote healthy eating</p>
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20. Topic Outline and Schedule:

Topic	Instructor	Week	Achieved ILOs	Evaluation Methods	Reference
Introduction to Nutrition Definition of important terms and concepts	Prof. Maher Al-Dabbas	1 st wk	A1, C2 and D4	Quiz	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002..Ronsivalli I & Vieira E.R. Elementary Food

Proximate analysis					Science. 3 rd Ed. New York: Van Nostrand Reinold, 1992.
Carbohydrates and Dietary Fiber -Chemical structure and food sources -Metabolism and role in energy release -Carbohydrates: Health related aspects - Allowances and body needs Dietary fiber: Classification, functions, and health benefits -Nutrition of alcohol.	Prof. Maher Al-Dabbas	2 nd wk	A1,A2, C1, C2 B4 and D4	assignments	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. Londo Merril Prentice Hall, 2000.
Proteins -Chemical structure and food-sources -Metabolism and functions -Protein-energy malnutrition -Protein quality and applications -Allowances and body needs	Prof. Maher Al-Dabbas	3 rd wk	A1,A2, C1, C2 B4 and D4	Quiz	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. Londo Merril Prentice Hall, 2000.
Lipids -Chemical structure and food sources -Metabolism and functions -Disorders of lipid metabolism -Allowances and body needs	Prof. Maher Al-Dabbas	4 th wk	A1,A2, C1, C2 B4 and D4	Presentations	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. London: Merril Prentice Hall, 2000
Energy metabolism -Energy-releasing nutrients -Regulation and metabolism -Estimation of energy expenditure -Disorders of energy metabolism -Energy needs and recommendations	Prof. Maher Al-Dabbas	5 th wk	A1,A2, C1, C2 B4 and D4	discussion	- Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. London: Merril Prentice Hall, 2000
Mineral Elements and Water -Body water:	Prof.	6 th wk	A1,A2, C1, C2 B4 and D4	Analysis and discussion	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West

Distribution, functions and balance -Electrolyte and acid-base balance -Macro-and-micro-elements: Classification, food sources, functions, metabolism and allowances -Disorders of water, electrolyte and mineral metabolism	Mahe Al- Dabbas				Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. Londo Merril Prentice Hall, 2000
Vitamins -Water – soluble and fat-soluble vitamins -Functions and metabolism -Food sources and allowances	Prof. Mahe Al- Dabbas	7 th wk	A1,A2, C1, C2 B4 and D4	Discussion	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. Londo Merril Prentice Hall, 2000
Balanced Diet -The concept of balanced diet -Nutrition facts: Food labels -Food groups and their nutritional significance -Dietary guidelines for healthy eating	Prof. Mahe Al- Dabbas	8 th wk	A1,A2, C1, C2 B4 and D4	assignments	Whitney E., Cataldo C. & Rolfs C Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. Londo Merril Prentice Hall, 2000.
Introduction to Food Science -Definition of important terms and concepts -The profession of food science and technology	Prof. Mahe Al- Dabbas	9 th wk	A1, C2, D2 and D3	Analysis and discussion	Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992.
Food Spoilage -Types of food spoilage -Causes of food spoilage	Mahe Al bas	10 th wk	A3, B2, C3 and D1	assignments	Fox B. A. & Cameron A.G. Food Science, Nutrition and Health. London: Hodder Arnold 6 th .ed., 1995. Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992.
Food-borne Diseases -Causative agents and general symptoms	Prof.	11 th wk	A3, B2, C2, C3 and D1	Analysis and discussion	Fox B. A. & Cameron A.G. Food Science, Nutrition and Health. London: Hodder Arnold

-Management and control	Mahe Al- Dabbas				6 th .ed., 1995. Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992.
Food preservation by heat applications	Prof. Mahe Al- Dabbas	12 th wk	A4, B1,B3, C3 and D1	Quiz	Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992. Potter, N. Food Science. 4 th .Ed. Westport: AVI, 1986.
Food Preservation at Low Temperature	Prof. Mahe Al- Dabbas	13 th wk	A4, B1,B3, C3 and D1	assignments	Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992. Potter, N. Food Science. 4 th .Ed. Westport: AVI, 1986.
Water Activity and Food Preservation -Definition of water activity of foods -Role of water activity in food spoilage -Methods to lower water activity in foods (Concentration, evaporation and drying)	Prof. Mahe Al- Dabbas	14 th wk	A4, B1,B3, C1, C3 and D1	assignments	Murano P.S. Understanding Food Science & Technology. Australia: Thomson, 2003. Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992. Potter, N. Food Science. 4 th .Ed. Westport: AVI, 1986.
Food Preservation by Use of Chemicals	Prof. Mahe Al- Dabbas	15 th wk	A4, B1,B3, C1, C3 and D1	Exam, Quiz	Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3 rd Ed., New York: Van Nostrand Reinold, 1992. Potter, N. Food Science. 4 th .Ed. Westport: AVI, 1986.

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Lectures and discussion with assignments strengthen through panel discussion. Creative thinking through questions given during lectures and ability of solving and analysing problems related to each topic.

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Exams, Quizzes and ability to analyze problems using on the spot questions or requirement of assignments.

23. Course Policies:

A- Attendance policies: **Attendance sheet for each lecture and each lab.**

B- Absences from exams and handing in assignments on time: **Make up if there is an official excuse, assignment not accepted after specified date.**

C- Health and safety procedures: **Well seated without any drink on lecture**

D- Honesty policy regarding cheating, plagiarism, misbehavior: **Subjected to students punishment committee**

E- Grading policy: **According to average and University policy**

F- Available university services that support achievement in the course: **Requested before the course and available or provided on request.**

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

Suitable lecture room well equipped lab. With needed tools, and training in suitable organization related to the field of study at graduation time .

25. References:

Required book (s), assigned reading and audio-visuals:

References available in library, text and handled sheets, movies related to specific subjects may be provided

Recommended books, materials, and media:

Main Reference/s:

1. Whitney E., Cataldo C. & Rolfs C. Understanding Normal & Clinical Nutrition. San Francisco: West Publishing Co., 2002.
2. Ronsivalli L.J. & Vieira E.R. Elementary Food Science. 3rd Ed. New York: Van Nostrand Reinold, 1992.

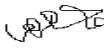
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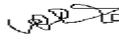
1. Fox B. A. & Cameron A.G. Food Science, Nutrition and Health. London: Hodder Arnold 6th.ed., 1995.

2. Weigly E.S. Mueller D.H. & Robinson C.H. Robinsons' Basic Nutrition & Diet Therapy. London: Merrill Prentice Hall, 2000.
3. Murano P.S. Understanding Food Science & Technology. Australia: Thomson, 2003.
4. Potter, N. Food Science. 4th.Ed. Westport: AVI, 1986.

26. Additional information:

None

Name of Course Coordinator: Prof Maher Al-Dabbas. Signature:  Date: 25th Nov., 2019

Head of curriculum committee/Department: Prof Maher Al-Dabbas. Signature: 

Head of Department: Prof Maher Al-Dabbas Signature: 

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

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