Course Description Form

Course Description / Nutritional experiments - stage four

This course description provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he or she has made the most of the available learning opportunities. It must be linked to the description of the programme. ;

1.Educational Institution	**University of Baghdad / College of Education for Girls**
2. Scientific Department / Center	**Department of Home Economics**
3.Course Name/Code	**Nutritional experiments / Theory 437HENX**
4. Available Attendance Forms	**daily**
5.Semester/Year	**Yearly 2021/2022**
6. Number of academic hours (total)	**30 weeks with 2 theoretical hours and 2 practical hours** **4 weekly * 30=120 hours per year**
7.Date of preparation of this description	**10/11/2021**
8. Course Objectives	
Identify the importance of water and its components that are closely related to the field of cooking foodstuffs and the impact of crop types on them	
Identify the components of some food mods such as eggs and milk and know their impact on the specifications of the products that go into their preparation	
Identify the effect of meat components of all kinds on meat quality specifications after conducting various transactions on them	

10. Required Program Outcomes and Teaching, Learning and Assessment Methods

A- Cognitive objectives

A1- Identify the importance of water and its flow in food and types of solutions

A2- Identify the components of eggs and their effect on the products in which eggs are included in their preparation

A3- Identifying the components of milk and their effect on the products in which milk is included in its preparation

A4- Identify the components of meat of all kinds and their impact on the specifications of the meat produced after treatment

A5- Identifying the components of fruits and vegetables and their impact on the specifications of the outputs

A6- Identify the components of oils and fats and their effect on products

A7- Identify the components of flour and their effect on products

B - Skills objectives of the course.

B1 - Developing the student's ability to convert information into methods of work and activity in the practical field of food experiments

B2 – Developing and employing the acquired skills for the development of food products

Teaching and learning methods

1. Explanation and clarification

2. Lecture method

3. View ways of working

4. Self-learning method

Evaluation methods

1- Performing exams

2- Direct answer to the questions posed

3- Use the Open book exam system to obtain information with the source

4- Preparing reports according to the latest relevant information

C. Emotional and value goals
C1- Observation, perception and thinking **C2- Conclusion and evaluation** **C3. Implementation and evaluation**
Teaching and learning methods
1. Explanation and clarification **2. Lecture method** **3. View ways of working** **4. Self-learning method**
Evaluation methods **1-Performance of exams** **2- Direct answer to the questions posed** **3- Use the Open book exam system to obtain information with the source** **4- Preparing reports according to the latest relevant information**
(d) General and qualifier skills transferred (other skills related to employability and personal development).
D1- Empowerment Skill **D2- Achievement skill** **D2-** **D3-**

. Course structure					
The week	**Hours**	**Required Learning Outcomes**	**Unit / Subject Name**	**Method of education**	**Evaluation method**
1	**2**	**The student gets to know**	**Water, its importance definition, the chemical composition of water**	**Lecture**	**Achievement Test**
2	**2**	**The student gets to know**	**Physical states of water and its physicochemical properties, hard water**	**Lecture**	**Achievement Test**
3	**2**	**The student gets to know**	**Lotions. Definition of solution, types, properties**	**Lecture**	**Achievement Test**
4	**2**	**The student gets to know**	**Colloids, definition, name, general properties, sedimentation, main colloidal diffusion cases in foods, properties**	**Lecture**	**Achievement Test**
5	**2**	**The student gets to know**	**Emulsifiers, their definition, types, factors affecting their formation, emulsifying theories of action. Foams, definition, importance, factors affecting its construction and demolition**	**Lecture**	**Achievement Test**
6	**2**	**The student gets to know**	**Gels, definition, properties, factors affecting their formation, separation phenomenon, factors affecting them**	**Lecture**	**Achievement Test**
7	**2**	**The student gets to know**	**Eggs, their nutritional and manufacturing importance, the composition of the shell, yolks and whites and their chemical contents**	**Lecture**	**Achievement Test**
8	**2**	**The student gets to know**	**Qualitative properties of eggs, methods of handling and storage, functional properties and uses in the kitchen**	**Lecture**	**Achievement Test**

9	**2**	**The student gets to know**	**The basic methods of cooking eggs, products in which eggs enter, egg foam, egg preservation**	**Lecture**	**Achievement Test**
10	**2**	**The student gets to know**	**Milk, its nutritional and manufacturing importance, the nature of the organization of its components, types of milk and its products**	**Lecture**	**Achievement Test**
11	**2**	**The student gets to know**	**Supplement of types of milk and milk products, cooking milk, thermal pasteurization, whey proteins, effect of heat in casein**	**Lecture**	**Achievement Test**
12	**2**	**The student gets to know**	**Effect of heat on milk color and flavor Effect of acid in casein, effect of resonance enzyme in it, effect of polyphenolic compounds on milk proteins, Homogenized milk and its sensitivity to heat, circulation of processed foods from milk**	**Lecture**	**Achievement Test**
13	**2**	**The student gets to know**	**Fruits, their importance, plant tissue structure**	**Lecture**	**Achievement Test**
14	**2**	**The student gets to know**	**Chemical content of fruits, fruit smell, post-harvesting changes, enzymatic tanning, changes due to cooking**	**Lecture**	**Achievement Test**
15	**2**	**The student gets to know**	**Vegetables, their importance, vegetable composition and chemical content**	**Lecture**	**Achievement Test**
16	**2**	**The student gets to know**	**The same applies to fruits in terms of cellular structure, tenderness, enzymatic tanning, quality characteristics of fresh vegetables**	**Lecture**	**Achievement Test**
17	**2**	**The student gets**	**Meat, its importance and types, chemical content,**	**Lecture**	**Achievement**

		to know	muscular structure of meat		Test
18	2	Practical classroom applications	Female App	Lecture	Achievement Test
19	2	Practical classroom applications	Female App	Lecture	Achievement Test
20	2	Practical classroom applications	Female App	Lecture	Achievement Test
21	2	Practical classroom applications	Female App	Lecture	Achievement Test
22	2	Practical classroom applications	Female App	Lecture	Achievement Test
23	2	Practical classroom applications	Female App	Lecture	Achievement Test
24	2	Practical classroom applications	Female App	Lecture	Achievement Test
25	2	The student gets to know	Tenderness of meat, hardness of meat and bond fabric, ageing, cooking meat	Lecture	Achievement Test
26	2	The student gets to know	Poultry, its importance, types, preparation for marketing, composition and chemical content, cooking, freezing, cooked poultry flavor, B group vitamins in it	Lecture	Achievement Test
27	2	The student gets to know	Fish, types and nutritional value, maintaining its quality, finfish muscle structure and content, fish resilience towards frozen storage, evaluation of fish cooking	Lecture	Achievement Test

			completeness and changes		
28	**2**	**The student gets to know**	**Fats, their importance, types, chemical composition, functions in food, types of fatty products**	**Lecture**	**Achievement Test**
29	**2**	**The student gets to know**	**Flour, its types, the quality of its components, fluffing agents, yeast and fermentation and its role in the production of bread and bread**	**Lecture**	**Achievement Test**
30	**2**	**The student gets to know**	**Cakes, pastries, the effect of blending and manufacturing conditions on production quality**	**Lecture**	**Achievement Test**

Course description form

This course description provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he or she has made the most of the available learning opportunities. It must be linked to the description of the programme.

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(total)	**4 weekly * 30=120 hours per year**
7.Date of preparation of this description	**10/11/2021**

8. Course Objectives
Identify the importance of water and its components that are closely related to the field of cooking foodstuffs and the impact of crop types on them
Identify the components of some food mods such as eggs and milk and know their impact on the specifications of the products that go into their preparation
Identify the effect of meat components of all kinds on meat quality specifications after conducting various transactions on them
Study the importance of fruit and vegetable components and their impact on the specifications of food products. **Study the effect of oil and fat components on the specifications of food products involved in their preparation** **Identify the effect of flour ingredients in the work of bread, pastries, cakes and sweets of all kinds and know their impact on the qualitative characteristics of food products.**

10. Required Program Outcomes and Teaching, Learning and Assessment Methods

A- Cognitive objectives

A1- Identify the importance of water and its flow in food and types of solutions

A2- Identify the components of eggs and their effect on the products in which eggs are included in their preparation

A3- Identifying the components of milk and their effect on the products in which milk is included in its preparation

A4- Identify the components of meat of all kinds and their impact on the specifications of the meat produced after treatment

A5- Identifying the components of fruits and vegetables and their impact on the specifications of the outputs

A6- Identify the components of oils and fats and their effect on products

A7- Identify the components of flour and their effect on products

B - Skills objectives of the course.

B1 - Developing the student's ability to convert information into methods of work and activity in the practical field of food experiments

B2 – Developing and employing the acquired skills for the development of food products

Teaching and learning methods

1- Explanation and clarification

2- Lecture method

3- How to view the ways of working

4- Self-learning method

Evaluation methods

1- Performing exams

2- Direct answer to the questions posed

3- Use the Open book exam system to obtain information with the source

4- Preparing reports according to the latest relevant information

C. Emotional and value goals

C1- Observation, perception and thinking

C2- Conclusion and evaluation

C3. Implementation and evaluation

Teaching and learning methods

1- Explanation and clarification

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Evaluation methods

1- Performing exams

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4- Preparing reports according to the latest relevant information

D – General and rehabilitation skills transferred (other skills related to employability and personal development).

1- Empowerment skill

2- Achievement skill

2-

3-

30 Course Structure					
The week	**Hours**	**Required Learning Outcomes**	**Unit / Subject Name**	**Method of education**	**Evaluation method**
1	**2**	**The student gets to know**	**Water, its importance definition, the chemical composition of water**	**Lecture**	**Achievement Test**
2	**2**	**The student gets to know**	**Physical states of water and its physicochemical properties, hard water**	**Lecture**	**Achievement Test**
3	**2**	**The student gets to know**	**Lotions. Definition of solution, types, properties**	**Lecture**	**Achievement Test**
4	**2**	**The student gets to know**	**Colloids, definition, name, general properties, sedimentation, main colloidal diffusion cases in foods, properties**	**Lecture**	**Achievement Test**
5	**2**	**The student gets to know**	**Emulsifiers, their definition, types, factors affecting their formation, emulsifying theories of action. Foams, definition, importance, factors affecting its construction and demolition**	**Lecture**	**Achievement Test**
6	**2**	**The student gets to know**	**Gels, definition, properties, factors affecting their formation, separation phenomenon, factors affecting them**	**Lecture**	**Achievement Test**
7	**2**	**The student gets to know**	**Eggs, their nutritional and manufacturing importance, the composition of the shell, yolks and whites and their chemical contents**	**Lecture**	**Achievement Test**
8	**2**	**The student gets to know**	**Qualitative properties of eggs, methods of handling and storage, functional properties and uses in the kitchen**	**Lecture**	**Achievement Test**

9	**2**	**The student gets to know**	**The basic methods of cooking eggs, products in which eggs enter, egg foam, egg preservation**	**Lecture**	**Achievement Test**
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12	**2**	**The student gets to know**	**Effect of heat on milk color and flavor Effect of acid in casein, effect of resonance enzyme in it, effect of polyphenolic compounds on milk proteins, Homogenized milk and its sensitivity to heat, circulation of processed foods from milk**	**Lecture**	**Achievement Test**
13	**2**	**The student gets to know**	**Fruits, their importance, plant tissue structure**	**Lecture**	**Achievement Test**
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16	**2**	**The student gets to know**	**The same applies to fruits in terms of cellular structure, tenderness, enzymatic tanning, quality characteristics of fresh vegetables**	**Lecture**	**Achievement Test**
17	**2**	**The student gets to know**	**Meat, its importance and types, chemical content, muscular structure of meat**	**Lecture**	**Achievement Test**

18	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
19	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
20	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
21	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
22	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
23	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
24	**2**	**The student gets to know**	**Female App**	**Lecture**	**Achievement Test**
25	**2**	**The student gets to know**	**Tenderness of meat, hardness of meat and bond fabric, ageing, cooking meat**	**Lecture**	**Achievement Test**
26	**2**	**The student gets to know**	**Poultry, its importance, types, preparation for marketing, composition and chemical content, cooking, freezing, cooked poultry flavor, B group vitamins in it**	**Lecture**	**audition** **Achievement**
27	**2**	**The student gets to know**	**Fish, types and nutritional value, maintaining its quality, finfish muscle structure and content, fish resilience towards frozen storage, evaluation of fish cooking completeness and changes**	**Lecture**	**Achievement Test**
28	**2**	**The student gets to know**	**Fats, their importance, types, chemical composition, functions in food, types of fatty products**	**Lecture**	**Achievement Test**
29	**2**	**The student gets to know**	**Flour, its types, the quality of its components, fluffing agents, yeast and fermentation and its role in the production of bread**	**Lecture**	**Achievement Test**

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30	2	The student gets to know	Cakes, pastries, the effect of blending and manufacturing conditions on production quality	Lecture	Achievement Test