Course Description Form

1. Course Name:
Cereal Technology
2. Course Code:
CETE365
3. Semester / Year:
First semester (fall) / 2024-2025
4. Description Preparation Date:
1/9/2024
5. Available Attendance Forms:
Presence
6. Number of Credit Hours (Total) / Number of Units (Total)
30theoretical hours + 45 practical hours (75 hours) / 3.5 units
7. Course administrator's name (mention all, if more than one name)
Name: Ph.D. Roqaya Fouad Lafy and Israa Maan Email: roqayafouad@uomosul.edu.iq Name: ph.D. Azhar Ibrahim shuker Email: azhar.Ibrahim@uomosul.edu.iq

8. Course Objectives	
Theoretical: -Familiarize students with the importance o food cereals and strategy - Raising the technological knowledge o students' cereal industry - Familiarize students with different wa to manufacture different cereals - Familiarize the student with t methods of receiving and storing cereals	Practical: *Enabling the student to become famil with the most important laborat methods Grain study

9. Teaching and Learning Strategies	
Theoretical - Interactive lecture - Brainstorming - Dialogue and discussion - Assigning reports -Conducting monthly and daily examinations	practical: - Assigning group work to rev leadership skills - Assigning tasks and reporting for ea experiment

- Offers for cereal models and appliances for cer technology	

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2Theoretical 3Practical	**THEORETICAL** **a1 :** possesses knowledge of botani taxonomy. Economic importance, anatomi structure, chemical composition, grain properties related to storage, factors affecting the grain storage process and wheat quality properties. **Practical:** C 1: Identify laborato mills, grinding meth and calculation of extraction ratios For each method and qualitative qualities cereals	**THEORETICAL** The importance grains and their chemical composition Grai storage and whea quality propertie Practical: Morological, chemical, qualitative and rheological qualities and grinding methods of gra	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
2	2Theoretical 3Practical	**THEORETICAL** a1 : possesses knowledge of botani taxonomy. Economic importance, anatomi structure, chemical composition, grain properties related to storage, factors affecting the grain storage process and wheat quality properties. **Practical:** C 1: Identify laborato mills, grinding meth of grain and calculation of extraction ratios For each method and qualitative qualities	**THEORETICAL** The importance grains and their chemical composition Grai storage and whea quality propertie **Practical:** Morological, chemical, qualitative and rheological qualities and grinding method	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions

		cereals			
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5	2Theoretical 3Practical	**THEORETICAL** a1 : possesses knowledge of botani	**THEORETICAL** The importance grains and their	**THEORETICAL** audio methods, Writing on the board	**THEORETICAL** Short exams, assignments,

		taxonomy. Economic importance, anatomi structure, chemical composition, grain properties related to storage, factors affecting the grain storage process and wheat quality properties. **Practical:** C 1: Identify laborato mills, grinding meth and calculation of extraction ratios For each method and qualitative qualities cereals	chemical composition Grai storage and whe quality propertie **Practical**: Morological, chemical, qualitative and rheological qualities and grinding method of grain	Direct dialogue style Practical: conducting the test, explaining and presenting Sample	discussions
6	2Theoretical 3Practical	**THEORETICAL** b 3 : Shows the physical and chemica properties of cereals **Practical:** C 1: Identify laborato mills, grinding meth and calculation of extraction ratios For each method and qualitative qualities cereals	**THEORETICAL** The importance grains and their chemical composition Grai storage and whe quality propertie **Practical**: Morological, chemical, qualitative and rheological qualities and grinding method of grain	**THEORETICAL** audio methods, Writing on the board Direct dialogue Style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
7	2Theoretical 3Practical	**THEORETICAL** a1 : possesses knowledge of botani taxonomy. Economic importance, anatomi structure, chemical composition, grain properties related to storage, factors affecting the grain storage process and wheat quality properties.	**THEORETICAL** The importance grains and their chemical composition Grai storage and whe quality propertie **Practical**: Morological, chemical, qualitative and rheological qualities and grinding method	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions

		Practical: C 1: Identify laborato mills, grinding meth and calculation of extraction ratios For each method and qualitative qualities cereals	of grain		
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		extraction ratios For each method and qualitative qualities cereals			
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11	2Theoretical 3Practical	**THEORETICAL** a1 : possesses knowledge of botani taxonomy. Economic importance, anatomi structure, chemical composition, grain properties related to storage, factors affecting the grain storage process and wheat quality properties. **Practical:** b1 studies the qualit qualities of rice, past bulgur and freekeh	**THEORETICAL** Manufacture of bulgur, freekeh, rice and pasta **Practical:** Bulgur, freekeh, rice and pasta.	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
12	2Theoretical 3Practical	**THEORETICAL** a2 Learns about the stages of making	**THEORETICAL** Manufacture of bulgur, freekeh,	**THEORETICAL** audio methods, Writing on the board	**THEORETICAL** Short exams, assignments, discussions

		bulgur, freekeh, rice and pasta and the importance of the ty of grains in their production and their nutritional value **Practical:** b1 studies the quali qualities of rice, past bulgur and freekeh	rice and pasta **Practical:** Bulgur, freekeh, rice and pasta.	Direct dialogue Style Practical: conducting the test, explaining and presenting Sample	
13	2Theoretical 3Practical	**THEORETICAL** a2 Learns about the stages of making bulgur, freekeh, rice and pasta and the importance of the ty of grains in their production and their nutritional value **Practical:** b1 studies the quali qualities of rice, past bulgur and freekeh	**THEORETICAL** Manufacture of bulgur, freekeh, rice and pasta **Practical:** Bulgur, freekeh, rice and pasta.	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
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15	2Theoretical 3Practical	**THEORETICAL** d1: The student communicates with one of the grain processing laborator or private research centers to inform the student about the m important laborator	**THEORETICAL** Field visit to one the research laboratories or centres for corea Technology **practical:** Field visit to one	**THEORETICAL** audio methods, Writing on the board Direct dialogue style	**THEORETICAL** Give a brief lecture by the student regardi his/her scientif visits Submission of a report of the student's views

		equipment and methods of work, especially those that are not available in t department practical: d1: The student communicates with one of the grain processing laborator or private research centers to inform the student about the m important laborator equipment and methods of work, especially those that are not available in t department	the research laboratories or centres for cerea technology	**Practical:** conducting the test, explaining and presenting Sample	the said visit

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily

t	Evaluation methods	Evaluation date (one week)	Grade	Relative weight %
1	Final theoretical report +theoretical practical reports	Theoretical15weeks Practical1-15 weeks	7theoretical + 6 practical	13%
2	Short test 1 Quiz	3 weeks	4theoretical + 2practical	6%
3	Midterm exam (theoretical and practical)	9 weeks	10theoretical + 5 practical	15%
4	Short test 2 Quiz	12 weeks	4 theoretical + 2 practical	6%
5	Final practical test	practical exams week	20	20%
6	Final theoretical exam	Theoretical exams week	40	40%
			100	100

preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Cereal Technology, Dr. Mohammed Abid Alsai Ministry of Higher Education and Scientific Resear Republic of Iraq. 1982
Main references (sources)	Cereal Milling Technology Written by Engineer dr. Farhan Ahmed Amin 2013

	-LA. MANUAL 3 MANUAL OF METHODS- OF ANALYSIS OF FOODS FOOD SAFETY A STANDARDS AUTHORITY OF INDIA MINISTRY OF HEALTH AND FAMILY WELFARE GOVERNMENT OF INDIA,NEW DELHI 2015
Recommended books and references (scientific journals, reports…)	- Pasta and methods of inspection and testing/Part II 2006. Arab Republic of Egypt, Egyptian General Authority Specifications and Quality - Health Promotion and Disease Prevention Knowle Gateway – Whole grain Whole grain,2017 - CEREAL AND CEREAL PRODUCTS- Heat and F lour Testing Methods, A Guide to Understanding Wheat and Flour Quality, Wheat Marketing Center, Ir Portland, Oregon, USA
Electronic References, Websites	www.world-grain.com http://wheat.pw.usda.gov/ggpages/wheatpests.html

Instructor of theoritical part

Dr. Roqaya fouad lafy

Instructor of practical part
Dr.Azhar ibrahim shuker

Chairman of the scientific committee

A.Prof. Dr. Taha Mahmood Taqi Mahmood

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