Course Description Form

1. Course Name:
Cereal Technology
2. Course Code:
CETE365
3. Semester / Year:
First semester (fall) / 2023-2024
4. Description Preparation Date:
1/2/2024
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 of 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 - Offers for cereal models and appliances for cer technology	practical: - Assigning group work to rev leadership skills - Assigning tasks and reporting for ea experiment

10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2Theoretical 3Practical	**THEORETICAL** **b 1**: Know the Vegan Cereal Classification Knowing the econom importance of cereal Know the anatomica structure and chemi composition of the grain **C 4**: Practical: Calculates the weigh of 1,000 grains	**THEORETICAL** Importance of cereals and their chemical composition Practical: adjectives Morphology of grains	**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** C1: Know the characteristics of cereals related to storage, know the factors that affect the process of storing cereals, and learn about the forms of damage to cereals an the changes that occ during storage Practical: E 3: Estimates moisture in grains	**THEORETICAL** Grain storage Practical: laboratory millin	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
3	2Theoretical 3Practical	**THEORETICAL** b 2 : Recognize the methods of storing cereals Silo fittings and detection of insect injury Practical: b7: Demonstrates a moisturizing metho Wheat	**THEORETICAL** Grain storage Practical: laboratory millin	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
4	2Theoretical 3Practical	**THEORETICAL** a 1: Identify method	**THEORETICAL** Stored grain	**THEORETICAL** audio methods, Writing on the	**THEORETICAL** Short exams,

		of fighting insects, rodents, grain dust, risk of silo explosion and dust prevention methods Practical: c5: Enumerate laborator mills And grinding metho And calculate extraction ratios For every method	rodents Practical: laboratory milling	board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	assignments, discussions
5	2Theoretical 3Practical	**THEORETICAL** C2: The student understands the plar and agricultural properties of wheat Practical: b 8: Check the color of the flour Pekar test	**THEORETICAL** Wheat Quality Properties Practical: flour color	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
6	2Theoretical 3Practical	**THEORETICAL** b 3 : Shows the physical and chemica properties of cereals Practical: c6: Explain characteristics and structure Wheat flour protein	**THEORETICAL** Wheat Quality Properties Practical: wheat proteins	**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** C3 : Know the technological properties of cereals Practical: b 9:Applie flour strength testing methods	**THEORETICAL** Wheat Quality Properties Practical: flour strength	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
8	2Theoretical 3Practical	**THEORETICAL** a 2:Recognizes the	**THEORETICAL** Grinding wheat	**THEORETICAL** audio methods, Writing on the	**THEORETICAL** Short exams,

		steps and methods o receiving, cleaning, storing, beating and moisturizing wheat Practical: d 1: enumerates estimati methods Alphaamylase activi	Practical: amylas enzymes	board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	assignments, discussions
9	2Theoretical 3Practical	**THEORETICAL** b 4: Distinguishes between the product of various wheat grinding steps Practical: d 2: Measures the dough' resistance to mixing	**THEORETICAL** Grinding wheat Practical: physica tests of dough	**THEORETICAL** audio methods, Writing on the board Direct dialogue Style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
10	2Theoretical 3Practical	**THEORETICAL** a 3: Masters mill management and specification of flour quality practical:c7: Explains how the xttensograph device works	**THEORETICAL** Grinding wheat Practical: Physics dough method	**THEORETICAL** audio methods, Writing on the board Direct dialogue Style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
11	2Theoretical 3Practical	**THEORETICAL** b 5: Recognizes the stages of the bulgur industry and the importance of the wheat type in the production and nutritional value of t bulgur practical:c8: Draws lines for the readings obtained fr the curves of the mixograph device	**THEORETICAL** Bulgur Industry Practical: Physics dough method	**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** e 1:Knowledge of th Freekeh industry an its nutritional value practical:b 10: It documents the relationship of specifications and characteristics of starch in rice to judg the quality of rice	**THEORETICAL** Freekeh Industry practical: Rice	**THEORETICAL** audio methods, Writing on the board Direct dialogue Style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
13	2Theoretical 3Practical	**THEORETICAL** a 4:Recognizes the product and nutritio value of rice practical:b11 It confirms the most important tests conducted on semoli used in pasta manufacturing	**THEORETICAL** Rice Practical : pasta products	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	**THEORETICAL** Short exams, assignments, discussions
14	2Theoretical 3Practical	**THEORETICAL** b 6: Knows about the pasta industry and common defects in tl pasta produced practical: d3: Applies the Lane and Eynon method to determine sugars in cereals and their products	**THEORETICAL** Pasta Industry practical: Sugars	**THEORETICAL** audio methods, Writing on the board Direct dialogue style Practical: conducting the test, explaining and presenting Sample	Short exams, assignments, discussions
15	2Theoretical 3Practical	**THEORETICAL** E2:Familiarize students with equipment, tools, quality and sensory assessment equipme for cereals, mills and silos practical: d4:	**THEORETICAL** Field visit to one the research laboratories or centres for cerea technology practical: Starch	Practical: conducting the test, explaining	**THEORETICAL** Give a brief lecture by the student regardi his/her scientif visits Submission of a report of the student's views the said visit

		A method is used to obtain wheat starch the laboratory		and presenting Sample	

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 Alfin, 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
Israa maan

Chairman of the scientific committee

Prof. Dr. Moafak mahmood ahmed

Head of the department of Food science

Prof. Dr. Sumaya khalaf badawi

اسم الملف:	وصف مقرر مادة تصنيع حبوب-انكليزي-23-24
الدليل:	C:\Users\Acer\Desktop
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	C:\Users\Acer\AppData\Roaming\Microsoft\Templates\Normal.dotm
العنوان:	Ministry of Higher Education and Scientific Research
الموضوع:	
الكاتب:	Lez
الكلمات الأساسية:	
تعليقات:	
تاريخ الإنشاء:	11:02:00 2024/04/20 ص
رقم التغيير:	2
الحفظ الأخير بتاريخ:	11:02:00 2024/04/20 ص
الحفظ الأخير بقلم:	Acer
زمن التحرير الإجمالي:	0 دقائق
الطباعة الأخيرة:	12:01:00 2024/04/20 م
منذ آخر طباعة كاملة	
عدد الصفحات:	7
عدد الكلمات:	1,616 (تقريباً)
عدد الأحرف:	9,213 (تقريباً)