

Department of Food Engineering / Department of Food Engineering /

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
GM-312	CEREAL AND CEREAL PRODUCTS PROCESSING TECHNOLOGY	3.00	2.00	0.00	4.00	4.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Optional					
Preconditions	: Not					
Objectives of the Course	: To provide information about cereal technology.					
Course Contents	: The importance of the grain, cereal grain structure, grain storage, quality criteria, flour milling, Bread production technologies, Bread faults and diseases					
Recommended or Required Reading	: Lecture notes; Elgün A, Ertugay Z. 2000. Tahıl işleme Teknolojisi. Atatürk Üniversitesi Ziraat Fakültesi, Yayın No: 718, 2000, Erzurum Hoseney, R.C. 1994. Principles of cereal science and technology, 2nd ed., AACC, Inc. St.Paul, MN, USA. Koksel, H., Sivri, D., Özboy, O., Başman, A. 2000. Hububat laboratuvarı el kitabı. Hacettepe Üniversitesi Yayınları, Ankara.					
Planned Learning Activities and	: .....					
Teaching Methods						
Recommended Optional Programme Components	: .....					
Course Instructors	: Doç. Dr. Kamil Emre Gerçekaslan					
Instructor's Assistants	: .....					
Presentation Of Course	: Face to face					
Update Date	: 8/21/2025 12:39:55 PM					
Dosya İndirilme Tarihi	: 2/5/2026					

Course Outcomes

Upon the completion of this course a student :

- 1 Students will be able to explain the structure and nutritional and economical importance of cereals
- 2 Students will be able to explain the physical and chemical properties of cereals
- 3 Students will be able to explain the storage and milling of cereals
- 4 Students will be able to explain the processing technology of cereal products such as flour, bread, bulgur, pasta, cookie, cracker, cake and breakfast cereals
- 5 Students will be able to solve problems to be faced regarding the cereal science

Pre / Side Conditions

Course Code	Course Name	Condition	Teorical	Practice	Laboratory	Credits	ECTS

Weekly Contents						Course Learning Outcomes
	Theoretical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1. Week	*Classification and properties of cereals, anatomy of cereal grain		*Introduction of cereals	*Lecture notes pages 1-69.	*Lecture, question and answer	Ö.Ç.1 Ö.Ç.2
2. Week	*Classification and properties of cereals, anatomy of cereal grain		*Sampling of grains	*Lecture notes pages 1-69.	*Lecture, question and answer	Ö.Ç.1 Ö.Ç.2
3. Week	*Storage of cereals		*Foreign matter analysis	*Lecture notes pages 69-145.	*Lecture, question and answer	Ö.Ç.2 Ö.Ç.3
4. Week	*Storage of cereals		*size, uniformity	*Lecture notes pages 69-145.	*Lecture, question and answer	Ö.Ç.2 Ö.Ç.3
5. Week	*Storage of cereals		*Hectoliter weight	*Lecture notes pages 69-145.	*Lecture, question and answer	Ö.Ç.2 Ö.Ç.3
6. Week	*Milling		*Weight of a thousand grains	*Lecture notes pages 146-224	*Lecture, question and answer	Ö.Ç.3
7. Week	*Milling		*Grain Hardness	*Lecture notes pages 146-224	*Lecture, question and answer	Ö.Ç.3
8. Week	*mid-term exam					
9. Week	*Milling		*Moisture analysis	*Lecture notes pages 146-224	*Lecture, question and answer	Ö.Ç.3
10. Week	*Bread baking technology I (raw materials and additives, processing steps)		*ash analysis	*Lecture notes pages 225-267	*Lecture, question and answer	Ö.Ç.4
11. Week	*Bread baking technology I (raw materials and additives, processing steps)		*Protein analysis	*Lecture notes pages 225-267	*Lecture, question and answer	Ö.Ç.4
12. Week	*Bread baking technology II (bread staling, bread faults and mistakes, bread quality control)		*Farinograph-Extensograph	*Lecture notes pages 268-329	*Lecture, question and answer	Ö.Ç.4 Ö.Ç.5
13. Week	*Bread baking technology II (bread staling, bread faults and mistakes, bread quality control)		*Bread production	*Lecture notes pages 268-329	*Lecture, question and answer	Ö.Ç.4 Ö.Ç.5
14. Week	*TURKISH FOOD CODEX NOTIFICATION ON BREAD AND BREAD TYPES		*Bread Analysis	*Lecture notes pages 330-343	*Lecture, question and answer	Ö.Ç.4 Ö.Ç.5
15. Week	*General repetition		*Production of bakery products	*All lecture notes	*Lecture, question and answer	Ö.Ç.1 Ö.Ç.2 Ö.Ç.3 Ö.Ç.4 Ö.Ç.5

Assesment Methods %
1 Ara Sınav: 40.000
3 Final : 60.000

Activities	Count	Time(Hour)	Sum of Workload
Vize	1	1.00	1.00
Derse Katılım	14	5.00	70.00
Ders Öncesi Bireysel Çalışma	14	1.00	14.00
Ara Sınav Hazırlık	7	2.00	14.00
Final Sınavı Hazırlık	7	3.00	21.00
Final	1	2.00	2.00
Total : 122.00			
Sum of Workload / 30 ( Hour ) : 4			
ECTS : 4.00			

Program And Outcome Relation															
	P.O.1	P.O.2	P.O.3	P.O.4	P.O.5	P.O.6	P.O.7	P.O.8	P.O.9	P.O.10	P.O.11	P.O.12	P.O.13	P.O.14	
	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	
L.O. 1	5	5	0	0	0	0	0	0	0	0	0	0	5	5	
L.O. 2	5	5	0	0	0	0	0	0	0	0	0	0	5	5	
L.O. 3	5	5	0	0	0	0	0	0	0	0	0	0	5	5	
L.O. 4	5	5	0	0	0	0	0	0	0	0	0	0	5	5	
L.O. 5	5	5	0	0	0	0	0	0	0	0	0	0	5	5	
Average	10.00	10.00	0	0	0	0	0	0	0	0	0	0	10.00	10.00	

BEWARE OF PLAGIARISM! Please pay attention to proper academic citation rules and avoid plagiarism, an unethical and academically fraudulent behavior, when completing reports, assignments, or other academic works, and it is treated with the same disciplinary action as cheating in a classroom setting. It is imperative to refrain from presenting another person's ideas, language, expressions, or any other form of intellectual property as your own. Regardless of quality, your assignments/projects/research should reflect your original work. Perfection is not a requirement, and in case of any uncertainties regarding academic writing guidelines, you may seek clarification from your course instructor.

Engel Durumu/Uyarlama Talebi : Engel durumuna ilişkin herhangi bir uyarlama talebinde bulunmak isteyen öğrenciler, dersin öğretim elemanı ya da Nevşehir Engelli Öğrenci Birimi ile en kısa sürede iletişime geçmelidir.