

# CEREAL TECHNOLOGY I

<b>1</b>	Course Title:	CEREAL TECHNOLOGY I
<b>2</b>	Course Code:	GIDZ201
<b>3</b>	Type of Course:	Compulsory
<b>4</b>	Level of Course:	Short Cycle
<b>5</b>	Year of Study:	2
<b>6</b>	Semester:	3
<b>7</b>	ECTS Credits Allocated:	4.00
<b>8</b>	Theoretical (hour/week):	2.00
<b>9</b>	Practice (hour/week):	2.00
<b>10</b>	Laboratory (hour/week):	0
<b>11</b>	Prerequisites:	-
<b>12</b>	Language:	Turkish
<b>13</b>	Mode of Delivery:	Face to face
<b>14</b>	Course Coordinator:	Dr. HÜLYA AKBAŞ
<b>15</b>	Course Lecturers:	Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları
<b>16</b>	Contact information of the Course Coordinator:	Öğr. Gör. Dr.Hülya AKBAŞ hulyailik@uludag.edu.tr Yenişehir İbrahim Orhan Meslek Yüksekokulu Gıda Teknolojisi Programı
<b>17</b>	Website:	
<b>18</b>	Objective of the Course:	In accordance with the legislation and the Turkish Food Codex to give competencies to control the production of cereal products
<b>19</b>	Contribution of the Course to Professional Development:	Knowing the quality characteristics of cereals and cereal varieties ensures that correct and economical varieties are used in production.
<b>20</b>	Learning Outcomes:	
	<b>1</b>	Having skills and knowledge in order to be able to classify based on the quality of raw materials in conformity with regulations and Turkish Food Regulation.
	<b>2</b>	Having obtained the ability of wheat and flour analysis of food and commenting their results in cereal laboratories
	<b>3</b>	Having knowledge in order to be use milling machines with a computer system
	<b>4</b>	Having the ability of using the devices necessary for analysis
	<b>5</b>	Having the ability effort of doing Research and Development in laboratories
	<b>6</b>	Having ability of following current information to reveal differences in the production of cereal products
	<b>7</b>	Having the skill of working efficiently in teams in cereal companies.
	<b>8</b>	Having knowledge about the machines used in accordance with the requirements of the flour with the production technology
	<b>9</b>	
	<b>10</b>	
<b>21</b>	Course Content:	

<b>Course Content:</b>			
Week	Theoretical	Practice	
1	Introduction to Grain Technology, Types of Grain	The examination of diseased wheat	
2	Anatomy of wheat. Grain pests and diseases	Classification based on the quality of raw material	
3	Chemical composition of wheat	Representation of cleaning equipment	
4	The stages of wheat formation	Representation of annealing equipment	
5	Nutritional value of grains and wheat	Representation of grinding equipment	
6	Quality criteria of wheat. Physical, chemical and technological value of wheat	Representation of reducing equipment	
7	Storage of cereals. Storage conditions and factors affecting storage	Representation of sieving equipment	
8	Course repetition	Blending of flour	
9	Pre-treatments applied in the milling of wheat Cleaning-screening of wheat	Blending of wheat	
10	Pre-treatments applied in the milling of wheat. Peeling and blending	Determination of dry matter in grains and wheat	
11	Pre-treatments applied in the milling of wheat.	Determination of ash in grains and wheat	
12	Pre-treatments applied in the milling of wheat.	Using falling number, glutomatic and sedimentation devices	
13	Pre-treatments applied in the milling of wheat. Obtaining flour	Comments of extensograph curves	
14	Technological features of flour	Comments of farinograph curves	
22	Textbooks, References and/or Other Materials:	ELGUN, Adem; ERTUGAY, Zeki, Cereal processing technology, Ataturk University, Agr. Faculty Pub., Erzurum, 1997. ELGUN, Adem; ERTUGAY, Zeki, CERTEL, Muharrem, KOTANCILAR, Gürbüz, Cereal and Products Analytical Quality Control and Laboratory Implementation Guide, Ataturk University, Agr. Faculty Pub., Erzurum,, 1998. Milling Technology, H. Özkaya ve B. Özkaya, 2005	
23	Assesment		
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT
Midterm Exam		1	40.00
Quiz		0	0.00
Home work-project		0	0.00
Final Exam		1	60.00
Total		2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00	
Contribution of Final Exam to Success Grade		60.00	
Total		100.00	
Measurement and Evaluation Techniques Used in the Course		Measurement and Evaluation are carried out according to the principles of Bursa Uludağ University Associate and Undergraduate Education and Training Regulation.	

**24 ECTS / WORK LOAD TABLE**

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	2.00	28.00
Homeworks	1	10.00	10.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	10.00	10.00
Others	0	0.00	0.00
Final Exams	1	16.00	16.00
Total Work Load			120.00
Total work load/ 30 hr			4.00
ECTS Credit of the Course			4.00

**25**
**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	2	5	2	2	2	3	1	2	3	3	3	3	0	0	0	0
ÖK2	4	2	5	3	4	3	3	5	1	5	4	4	0	0	0	0
ÖK3	4	3	1	3	4	5	5	1	2	5	4	2	0	0	0	0
ÖK4	4	3	2	3	4	3	5	5	3	4	4	3	0	0	0	0
ÖK5	4	3	3	2	4	5	4	2	2	3	4	3	0	0	0	0
ÖK6	5	2	2	1	4	3	3	3	3	1	5	2	0	0	0	0
ÖK7	3	3	5	5	4	4	2	5	5	3	5	5	0	0	0	0
ÖK8	5	3	2	2	3	3	5	3	2	2	4	3	0	0	0	0

**LO: Learning Objectives PQ: Program Qualifications**

<b>Contribution Level:</b>	<b>1 very low</b>	<b>2 low</b>	<b>3 Medium</b>	<b>4 High</b>	<b>5 Very High</b>
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