



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Food Chemistry							
Course Code		KGK104		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	78 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The student to learn the food chemistry							
Course Content		In this course, physical and chemical properties of water, carbohydrates, lipids, proteins, vitamins and mineral substances, enzymes, phenolic compounds, natural flavors, natural toxic constituents and contaminants will be learnt to students							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Case Study					
Name of Lecturer(s)		Ins. Nurhan GÜNAY							

### Prerequisites & Co-requisites

Equivalent Course	VET153
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### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

### Recommended or Required Reading

1	FOOD CHEMISTRY (Editör)Prof Dr. İlbilge SALDAMLI
2	FOOD CHEMISTRY Prof.Dr. Arsan BİLİŞLİ
3	FOOD CHEMISTRY Prof.Dr. Arsan BİLİŞLİ

Week	Weekly Detailed Course Contents	
1	Theoretical	Importance of water in foods, changes in physical and chemical properties during food processing operations
2	Theoretical	Importance and chemical properties of carbohydrates in food
3	Theoretical	Changes in properties of carbohydrates during food processing
4	Theoretical	Properties and significance of common carbohydrates used in food industry, Importance of proteins
5	Theoretical	The chemical structure of proteins, major proteins found in foods and their properties
6	Theoretical	Changes occurred in proteins during processing of foods
7	Theoretical	The importance of lipids, chemical properties and classification
8	Theoretical	Midterm exam
9	Theoretical	The technological importance of lipids, the changes occurred during processing. Other reactions and hydrogenation of lipids
10	Theoretical	The importance, chemical structures and classification of vitamins in food, characteristics of major vitamins, The changes of vitamins during food processing
11	Theoretical	The importance and classification of minerals, basic properties of minerals and major minerals found in foods
12	Theoretical	The importance, chemical structures and classification of enzymes, the specificity of the enzymes, enzymatic changes occurred during processing Major enzymes seen in the food industry
13	Theoretical	The importance of natural flavour and phenolic compounds substances found in foods and their characteristics, importance in terms of food production technology
14	Theoretical	Toxic substances and contaminant found in foods
15	Theoretical	Repeating Courses



16	Final Exam	Final Exam
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Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	28	0	2	56
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
Total Workload (Hours)				78
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes	
1	To understand the basic components and chemical properties of foods
2	To understand the basic components and chemical properties of foods
3	To explain the physical and chemical properties of carbohydrates, lipids and proteins
4	To explain the physical and chemical properties of vitamins, minerals and enzymes
5	To comprehend the phenolic compounds, natural colours and flavours found in foods
6	To explain the effects of chemical changes on the functional, physical and nutritional properties of food components
7	Able to establish a relationship between the effects enzymatic and chemical reactions on food systems

Programme Outcomes (Food Technology)	
1	To be able to remember technologies used in food sector
2	to be able to recognise food production condition and provide to food safety
3	to be able to comprehend basic processes in food production
4	to be able to apply hygien and sanitation rules in food facilities
5	to be able to remember basic chemistry, food chemistry and microbiology
6	to be able to write physical, chemical and nutritional properties of foods and to comment their effect on human health
7	to be able to memorise food quality control technics and to evaluate result of control according to food legislation
8	to be able to have knowledge of professional ethics and responsibility
9	to be able to work in team and individual
10	to be able to communicate orally and proficiency in writing
11	to be able to follow professional development that adopt of life-long learning
12	to be able to be a person who wanted for sector

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High					
	L1	L2	L3	L4	L5
P1	4	5	5	5	4
P2	4	5	4	4	5
P3	4	5	4	5	5
P4	5	5	4	5	4
P5	5	5	4	5	5
P6	4	5	4	4	5
P7	4	5	5	5	5
P8	4	5	5	5	5
P9	5	5	4	5	5
P10	5	5	5	5	5
P11	5	5	5	5	5
P12	4	5	5	5	5

