



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Lipid Chemistry							
Course Code		GMP514		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of the course is to give information about chemical structure of lipids found in foods and micro and macro constituents of lipids. The reactions occuring among lipid constituents will also be discussed.							
Course Content		Chemical composition of lipids, lipid constituents, oil deterioration reactions, edible oils in terms of nutrition principles							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Individual Study					
Name of Lecturer(s)									

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	2	20

### Recommended or Required Reading

1	Gunstone, F.D., Harwood, J.L., Dijkstra, A. J., 2007. The Lipid Handbook, CRC press, ABD
2	2. Kayahan, M., 2004. Yağ Kimyası, ODTÜ Geliştirme Vakfı yayıncılık, Ankara

Week	Weekly Detailed Course Contents	
1	Theoretical	Structure of lipids; fatty acids
2	Theoretical	Structure of lipids; fatty acids
3	Theoretical	Structure of lipids; triglycerides
4	Theoretical	Structure of lipids; triglycerides, phosphatides
5	Theoretical	Structure of lipids; sterols, waxes
6	Theoretical	Structure of lipids; lipochromes, antioxidants, vitamins, flavour and aroma compounds
7	Theoretical	Lipid deterioration reactions; hydrolysis
8	Theoretical	Lipid deterioration reactions; oxidation
9	Theoretical	Lipid deterioration reactions; prevention of deterioration reactions
10	Theoretical	Functions of lipids; absorption and digestion
11	Theoretical	Functions of lipids; evaluation of edible oils in terms of nutrition principles
12	Theoretical	Functions of lipids; sensitive components in lipid consumption
13	Theoretical	Presentation of projects
14	Final Exam	Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	2	28	2	60
Midterm Examination	1	29	1	30
Final Examination	1	39	1	40
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	
2	



3	
4	
5	

**Programme Outcomes (Food Engineering Master)**

1	To provide further training and research opportunities to food engineers to meet the needs of the food industry
2	To develop and deepen the current and advanced knowledge in the field of food engineering with original thought and / or research at the level of expertise, based on the qualifications of the master
3	To identify, define, formulate and solve problems in applications related to Food Engineering and gain the ability to select and apply appropriate analytical methods and modeling techniques
4	To gain the ability to evaluate the accuracy of the data obtained from food analysis
5	To educate students having research, entrepreneur qualifications

**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	3	3	3	3	1
P2	3	3	3	3	
P3	3	2	2	4	
P4	3	3	3	3	
P5	3	4	3	3	

