

ADVANCED FOOD CHEMISTRY

1	Course Title:	ADVANCED FOOD CHEMISTRY
2	Course Code:	GMB6014
3	Type of Course:	Optional
4	Level of Course:	Third Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. CANAN ECE TAMER
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Bursa Uludağ Üniversitesi Ziraat Fakültesi Gıda Mühendisliği Bölümü 16059 Görükle/Bursa Tel: 0224 2941501 Fax: 0224 2941402 etamer@uludag.edu.tr
17	Website:	
18	Objective of the Course:	The aim of the course is to teach food components like water, carbohydrates, proteins, lipids, vitamins, minerals, phenolics, pigments, aromatic compounds, enzymes, toxic compounds naturally found in foods. Also their reactions and alteration of them during processing are explained.
19	Contribution of the Course to Professional Development:	Students taking the course will learn in detail the structures of the main components of foods, the reactions they participate in and the changes that occur during food processing.
20	Learning Outcomes:	
	1	The students will be able to have knowledge about the composition of foods in details.
	2	The students will be able to gain the ability to interpret and analyze chemical reactions in the process starting from raw materials to the final product.
	3	The students will be able to learn the effects of food processing methods on the food components.
	4	The students will be able to learn the chemical, physical and functional properties of food constituents.
	5	The students will be able to learn the principles of chemical and biochemical changes that take place with food components during processing and storage.
	6	The students will be able to have knowledge about the properties of the food additives.
	7	The students will be able to have knowledge about the properties of food contaminants.
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21	Course Content:		
	Course Content:		
Week	Theoretical	Practice	
1	Composition of foods		
2	Structure of carbohydrates and their functions		
3	Structure of proteins and their functions		
4	Structure of lipids and their functions		
5	Vitamins and their functions		
6	Minerals and their functions		
7	Main types of enzymes and enzymatic reactions in foods, and their kinetics		
8	Nonnutritive components of foods, probiotics, prebiotics		
9	Food additives		
10	Phenolic compounds		
11	Pigments and their functions		
12	Toxic compounds and contaminants		
13	Natural aromatic compounds in food		
14	Student assignment presentation		
22	Textbooks, References and/or Other Materials:	Deman, J.M. 1980. Principles of Food Chemistry. Avi Publishing Co. Westport, Connecticut.	
Activites		Number	Duration (hour)
			Total Work Load (hour)
Theoretical		14	3.00
Practicals/Labs		0	0.00
Self study and preperation		14	4.00
Homeworks		1	40.00
Projects		0	0.00
Field Studies		0	0.00
Midterm exams		1	60.00
Others		0	0.00
Final Exams		1	40.00
Total Work Load			178.00
Total work load/ 30 hr			5.93
ECTS Credit of the Course			6.00
23	Assesment		
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT
Midterm Exam		0	0.00
Quiz		0	0.00
Home work-project		1	40.00
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	For evaluation, a final exam is held together with homework and relative evaluation is applied.
24	ECTS / WORK LOAD TABLE

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	3	3	4	4	3	3	1	0	0	0	0	0	0	0	0	0
ÖK2	4	3	5	4	4	3	1	0	0	0	0	0	0	0	0	0
ÖK3	3	4	4	4	3	3	1	0	0	0	0	0	0	0	0	0
ÖK4	4	4	5	4	4	4	1	0	0	0	0	0	0	0	0	0
ÖK5	4	3	5	4	4	3	1	0	0	0	0	0	0	0	0	0
ÖK6	3	3	4	4	3	3	1	0	0	0	0	0	0	0	0	0
ÖK7	3	3	4	4	3	3	1	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							