



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Food Additives							
Course Code		LBT112		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To inform the students about the use of food additives in foods and the additives that are allowed to be used in foods. To raise awareness about the materials which are not allowed to use in the gardens and which are used for the purpose of cheating and adulteration. It is to gain a conscious approach to the relationship between public health and the use of food additives and food additives as well as additives							
Course Content		Definition and use of additives, Legal regulations on additive substances, Classification of additives, Evaluation of nutrient sensory properties and health of additives, Antioxidants: classification, chemical structure, properties, functions, Acidity regulators: classification, chemical structure, properties, functions, Emulsifiers: classification, chemical structure, properties, functions, Stabilizers: classification, chemical structure, properties, functions, Gums: classification, chemical structure, properties, functions, Protectors: classification, chemical structure, properties, functions, Renklendiriciler: sınıflandırılması, kimyasal yapısı, özellikleri, fonksiyonları, Flavors and sweeteners: classification, chemical structure, properties, functions, Agglomeration inhibitors: classification, chemical structure, properties, functions, Food additives and effects on human health,							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Individual Study					
Name of Lecturer(s)		Ins. Hilal DEMİRPENÇE							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Saldamlı, İ. (1985). Gıda Katkı Maddeleri ve İçeriyenler. Hacettepe Üniversitesi Mühendislik Fakültesi, Gıda Mühendisliği Bölümü. Ankara
2	Çakmakçı, S. ve Çelik, İ. (2000). Gıda Katkı Maddeleri. Atatürk Üniversitesi Ziraat fakültesi Ofset Tesisi. Erzurum
3	Gıda Katkı Maddeleri, Ömer Özdemir, Doç. Dr. Hilmi Namli Ders Notları
4	Gıda Katkı Maddeleri Ve İnsan Sağlığı Üzerine Etkileri, Zeynep Erden Çalışır, Deniz Çalışkan, Ankara Üniversitesi Eczacılık Fakültesi, Halk Sağlığı Bölümü Ankara Ecz. Fak. Derg. 32 (3) 207-206, 2003
5	Yeni Ürün Geliştirmede Gıda Katkı Maddelerinin Fonksiyonları ve Önemi, Erdoğan Küçüköner, Süleyman Demirel Üniversitesi Ziraat Fakültesi, Gıda Mühendisliği Bölümü, Gıda (2006) 31 (3) : 175-181
6	Gıda Katkı Maddeleri, Prof. Dr. Tomris Altuğ
7	Gıda Katkı Maddeleri ADU Çine Meslek Yüksekokulu Öğr. Gör. Dr. Engin Yaralı
8	Gıda Katkı Maddeleri Genel Bilgiler ve Tanımlar, Nuray Gamze YÖRÜK, Erdem DANYER
9	Millî Eğitim Bakanlığı, Gıda Teknolojisi, Fenolik Bileşikler Ve Doğal Renk Maddeleri, Ankara, 2013
10	Gıda Katkı Maddeleri ve Gıda Kontaminantları, Prof. Dr. Ali Esat Karakaya
11	Gıda Katkı Maddeleri, Yakın Doğu Üniversitesi, Yrd. Doç. Dr. Serdar Susever, Ders Notları
12	Türk Gıda Kodeksi 30.06.2013 Tarih ve 28693 Sayılı Gıda Katkı Maddeleri Yönetmeliği

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition and use of additives
	Practice	Recognition of additives
	Preparation Work	Supply of visual materials
2	Theoretical	Legal regulations on additive substances
	Practice	Examination of legal regulations in Turkey and in the world
	Preparation Work	Supply of visual materials
3	Theoretical	Classification of additives
	Practice	Examination of Food Additives Classes
	Preparation Work	Supply of visual materials
4	Theoretical	Antioxidants: classification, chemical structure, properties, functions
	Practice	Examination of antioxidants in vegetable oils by peroxide test



4	Preparation Work	Supply of visual materials
5	Theoretical	Acidity regulators: classification, chemical structure, properties, functions
	Practice	Examination of acidity regulators
	Preparation Work	Supply of visual materials
6	Theoretical	Emulsifiers: classification, chemical structure, properties, functions
	Practice	Recognition of Emulsifiers
	Preparation Work	Supply of visual materials
7	Theoretical	Stabilizers: classification, chemical structure, properties, functions,
	Practice	Recognition of stabilizers
	Preparation Work	Supply of visual materials
8	Intermediate Exam	Mid-term exam
9	Theoretical	Gums: classification, chemical structure, properties, functions
	Practice	Examination of Gums
	Preparation Work	Supply of visual materials
10	Theoretical	Protectors: classification, chemical structure, properties, functions
	Practice	Investigating Protectors with experimental prefixes
	Preparation Work	Supply of visual materials
11	Theoretical	Colorants: classification, chemical structure, properties, functions
	Practice	Examination of colorants with experimental examples
	Preparation Work	Supply of visual materials
12	Theoretical	Flavors and sweeteners, Agglomeration inhibitors: classification, chemical structure, properties, functions,
	Practice	Taste and sweeteners, Examination of aggravation inhibitors
	Preparation Work	Supply of visual materials
13	Theoretical	ADI (Acceptable Daily Intake) calculation methods for daily allowance
	Practice	Making calculations with examples
	Preparation Work	Supply of visual materials
14	Theoretical	ADI (Acceptable Daily Intake) calculation methods for daily allowance
	Practice	Making calculations with examples
	Preparation Work	Supply of visual materials
15	Theoretical	Evaluation of nutrient sensory properties and health of additives,
	Practice	Examination of the taste and health effects of foods containing added food additives at certain ratios
	Preparation Work	Supply of visual materials
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Individual Work	14	0	2	28
Midterm Examination	1	5	2	7
Final Examination	1	10	2	12
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Describe basic concepts and expressions about additives that prolong shelf life
2	Describe basic concepts and expressions of additives used to modify sensory properties
3	Explain basic concepts and expressions about additives used to increase nutritional value
4	Learn color materials
5	Learn harmful additives
6	Describe basic concepts and expressions related to process auxiliary additives



Programme Outcomes (Laboratory Technology)

1	To be able to comprehend social, cultural and social responsibilities, to be able to follow national and international contemporary problems and developments
2	Atatürk is bound to Atatürk nationalism in the direction of principles and reforms; Adopting the national, moral, spiritual and cultural values of the Turkish people, open to universal and contemporary developments, the Turkish language is a rich, rooted and productive language; Have a love of language and a consciousness; To have the ability to use as much of a foreign language as he would need to read, taste and habit and professionally.
3	To be able to recognize the basic hardware units and operating systems of a computer, having information about internet usage and preparing documents, spreadsheets and presentations on computer by using office programs.
4	Acquires theoretical and practical knowledge at the basic level in mathematics, science and vocational field.
5	With the knowledge of laboratory technology in the field, he knows and analyzes problems, brings interpretation of data and suggests solutions.
6	In laboratories, according to the prepared business plan and program, necessary work can be done to obtain the desired quality products.
7	To have professional and ethical responsibility in business life.
8	Development and change are open, follow scientific social and cultural innovations, and develop themselves constantly.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6
P5	5	5	5	5	5	5
P6	5	5	5	5	5	5
P8	4	4	4	4	4	4

