



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Basic Principles in Food Science							
Course Code		MSİ105		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to increase the applicability of knowledge, experience and new resources without neglecting the nutritional values ??of foods to meet the needs of people in new product development and food processing. Today, food is dealt with in a different way than in the past, its vital importance, its place in fighting war, its positive or negative effects on health. In the future, the food industry will be a field that needs more serious scientific research than it is today. The main purpose of the education and research in this area should be to increase the competitiveness of the food industry with a multinational, stimulating and professional approach							
Course Content		Components of diet; carbohydrates and their importance; oils and their importance; proteins and their importance; vitamins, minerals and their importance; Other useful compounds that are not nutrients, probiotics and prebiotics, gums, mineral substances, enzymes and their importance.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	"Food Chemistry". Ege University, Faculty of Science, Publication No: 149, ISBN 975-483-222-6, Izmir
2	Demirci, M. 2001. "Food Chemistry Demir. Onur Grafik, ISBN 975-97146-2-0, Tekirdag

Week	Weekly Detailed Course Contents	
1	Theoretical	General information, food science and food technology identification
2	Theoretical	Molecular structure of water, importance of hydrogen bonds
3	Theoretical	Sorption curves and water activity
4	Theoretical	Structure and properties of carbohydrates Structure and properties of monosaccharides (glucose, fructose, galactose, etc.)
5	Theoretical	Structure and properties of disaccharides (sucrose, maltose, lactose, etc.)
6	Theoretical	Gelatinization and enzymatic degradation of starch
7	Theoretical	Structure, types and usage of gum
8	Intermediate Exam	Midterm
9	Theoretical	Structure and general properties of lipids, saturated and unsaturated fatty acids
10	Theoretical	Types of aggravation of fat and antioxidants
11	Theoretical	Structure and general properties of proteins
12	Theoretical	Enzymes, enzyme applications
13	Theoretical	Water, oil-soluble vitamins and their general characteristics
14	Theoretical	Mineral materials and general properties
15	Theoretical	Prebiotic, probiotic foods and their properties
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Midterm Examination	1	8	1	9



Final Examination	1	12	1	13
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To be able to comprehend food components
2	Ability to relate between food components
3	To understand the effects of components during production
4	To be able to see the problems that may occur in production and offer solutions

Programme Outcomes (Fruit and Vegetables Processing Technology)

1	To be able to understand social, cultural and social responsibilities and to have the ability to follow national and international contemporary
2	In line with the principles and reforms of Atatürk; Adopting the national, moral, spiritual and cultural values ??of the Turkish Nation, open to universal and contemporary developments, the Turkish language is a rich, rooted and productive language; love and awareness of language; to have the ability to use the foreign language sufficiently and with the habit of reading and professionally.
3	To know the basic hardware units and operating systems of computer, internet to be able to prepare documents, spreadsheets and presentations on the computer by using office programs
4	Gains the theoretical and practical knowledge at the basic level in mathematics, science and professional fields
5	Recognize and analyze the problems with the knowledge of fruit and vegetable technology in the field, interpret the data and propose solutions.
6	According to the prepared work plan and program in laboratories, it can carry out the necessary works to obtain the desired quality product.
7	To have professional and ethical responsibility in business life.
8	It is open to development and change, follows scientific social and cultural innovations and constantly improves itself.

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

	L1	L2	L3	L4
P1	3	3	3	3
P2	3	3	3	3
P3	1	1	1	1
P4	2	2	2	2
P5	5	5	5	5
P6	5	5	5	5
P7	4	4	4	4
P8	4	4	4	4

