AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Food Biotecnology								
Course Code	BDB314		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	In the production of foodstuffs and food supplements that turns into a vegetable and animal production, the use of traditional and modern biyoteknolojk method also used for purposes other than the production of raw materials and additives the use of biotechnological methods is to give information about.								
Course Content	Biyoteknolojiyi and food biotechnology products with economic value can be obtained by using and, the practice areas, fermentation, classical and modern techniques, genetically modified organisms.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study, Problem Solving								
Name of Lecturer(s)	Prof. Hilmi YAMAN								

Prerequisites & Co-requisities	
ECTS Requisite	90

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Ertugay, Z. ve M. Certel, 1995; Biyoteknoloji I. A.Ü. Ders Notu, No:135.
2	Littlehales, C. and A. Massey, 2007; Quide to Biotechnology, Biotechnology Industry Organisation (BIO).
3	Aran, N. 2010; Gıda Biyoteknolojisi, Nobel Yayınevi, Ankara.

Week	Weekly Detailed Course Contents	
1	Theoretical	The importance of the subject matter of biotechnology
2	Theoretical	Biotechnology Is About Fields
3	Theoretical	Biotechnology Is About Fields
4	Theoretical	Food Biotechnology Critical Bacteria and Properties
5	Theoretical	Food biotechnology is important in terms of Molds and Properties
6	Theoretical	Food biotechnology in terms of Important Maya Types and Properties
7	Theoretical	The development of biotechnology in the world and in Turkey, today's situation and development potential
8	Intermediate Exam	Midterm Exam
9	Theoretical	Animal Food Production Biotechnology
10	Theoretical	Herbal Food Production Biotechnology
11	Theoretical	Foods and genetically modified Organisms
12	Theoretical	Food ingredients Production and biotechnology (Enzymes, sweeteners, vitamins etc.)
13	Theoretical	Food waste and biotechnology
14	Theoretical	Food analysis and Biotechnology
15	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	4	2	78
Midterm Examination	1	10	1	11

Final Examination	1	10	1	11
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	the definition and application of biotechnology would be familiar with.
2	understand the importance of biotechnology.
3	in the field of Biotechnology that evaluates the effects of positive and negative developments.
4	Food Biotechnology important to bacteria, mold and yeast types, and learn about the properties.
5	Animal and vegetable learns of biotechnological developments in food production.
6	learn about genetically modified organisms.
7	using all the information learned in the efficient daily life lifestyle light.
8	has information that can contribute to safe food production.

Programme Outcomes *(Nutrition and Dietetics)*	
1	Assess, apply and evaluate the accuracy, reliability and validity of basic knowledge and evidence based current scientific developments on nutrition and dietetics.
2	Assess scientifically the energy and nutrients need of individuals and develop nutrition plans and programs for the clients according to the principles of adequate and balanced nutrition and assessment of energy and nutrient requirements
3	Develop food and nutrition plans and policies for the prevention and promotion of healthy lifestyle applying the methods of nutritional assessment for the population.
4	Assess the nutritional status of the patients, evaluate the clinical symptoms, plan and apply individualized medical nutrition therapy for the patients.
5	Evaluate the factors affecting the quality of food consumed by the individuals and populations from production to consumption and implement the legal standards and legislations on food safety and food security.
6	Consider, interpret and apply the basic scientific knowledge on nutrition and dietetics especially have skills on critical thinking, problem solving and decision making and use effectively the appropriate current technologies and computer, demonstrate skills in preparing research manuscripts, project proposals, collecting and verifying data and writing report.
7	Assess, evaluate and interpret the nutritional status of the individuals and population groups using current knowledge, develop preventive measures, apply medical nutrition therapy, demonstrate active participation, teamwork and contributions with national and international stakeholders in health and social areas, in terms of ethical principles.
8	Plan menus in the institutional food service systems depending on the energy and nutrient requirements of target groups in the scope of nutrition and dietetic principles, take care of food safety in all settings from purchase of food to service, apply appropriate service using technological developments.
9	Develop and use effective strategies for the education, counseling and encouragement of individuals and population groups to facilitate behavior change and choose healthy and safety foods, prepare and update the related educational materials.
10	Apply laboratory work on product development, food analysis and related factors effecting food quality and interpret the results and evaluate them according to the legal arrangements.
11	Plan, manage, evaluate, monitor and report researches and programs to educate and increase and improve the knowledge and awareness of individuals and population groups on healthy nutrition during all lifecycle period, and lead such activities, support and take role in the preparation and implementation of national and international food and nutrition plans and policies.
12	Work and perform duties in the scope of occupational responsibilities and ethical principles, understand the importance of lifelong learning, follow the latest developments (innovations) in science, technology and health, demonstrate professional attributes for the enhancement of nutrition and dietetics profession.
13	Use, apply, discuss and share scientific and evidence based knowledge in nutrition and dietetics practice with team and team members, develop and demonstrate effective skills using oral, print, visual methods in communicating and expressing thoughts and ideas, communicate with all stakeholders within ethical principles. Develop and demonstrate effective communications skills using oral, print, visual, electronic and mass media methods
14	Plan, apply, monitor and evaluate individualized medical nutrition therapy within interdisciplinary approaches, considering the sociocultural, economical status of patients in various age groups and also contribute to clinical researches.

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	L7	L8
P1	2	3	1	2	2	3	2	2
P2	2	2	1	2	2	2	2	1
P3	3	2	1	1	1	2	1	1
P4	3	2	2	1	2	1	1	1
P5	2	1	2	1	1	1	1	2
P6	4	2	2	2	1	1	2	2
P7	2	1	1	3	1	2	1	2

P8	1	2	2	2		1	2	1
P9	2	2	4	1	2	2	1	3
P10	2	2	2	1	1	2	1	2
P11	3	2	3	2	2	2	1	1
P12	2	3	2	1	2	1	2	2
P13	1	2	1	2	2	2	1	1
P14	2		2	1	1	1	2	2