AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Basic Microbiology								
Course Code	BYL107		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	78 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The aim of the course is to give basic informations about microorganisms (prokaryotes, protozoa, fungi and viruses) and to teach the structure, biology, physiology, metabolism and classification of microorganisms and their use in biotechnology.								
Course Content	Microorganisms, microbial life, microorganisms cell structure, metabolism, microbial growth, metabolic regulation, evolution and systematic								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study								
Name of Lecturer(s)	Prof. Dilek KESKİN								

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

Recommended or Required Reading	
1	Madigan, M.T., Martinko, J. M., Parker, J. 2016. Brock's Biology of Microorganisms. 14th Edition, Prentice-Hall,Inc., USA
2	. Lodish,H.,Berk,A.,Zipursky,S.L.,Matsudaria,P.,Baltimore,D.,Darnell,J.,2000. Molecular cell Biology.
3	. Freeman W.H., Tortora,C. F.,Funke, B. R., Case, C.L.1995. Microbiology: An Introduction, 5th Edition, The Benjamin/Cummings Publishing Company Inc.

Week	Weekly Detailed Course Contents	
1	Theoretical	Microorganisms and microbiology, an overview of microbial life
2	Theoretical	Macromolecules, cell structure / function
3	Theoretical	Nutrition and laboratory culture and metabolism of microorganisms
4	Theoretical	Microbial reproduction
5	Theoretical	Principles of molecular biology
6	Theoretical	Metabolic regulation
7	Theoretical	Fundamentals of virology
8	Intermediate Exam	Mid term exam
9	Theoretical	Bacterial genetics
10	Theoretical	Microbial evolution and systematic
11	Theoretical	Prokaryotic diversity: Bacteria
12	Theoretical	Prokaryotic diversity: Archaea
13	Theoretical	Eukaryotic cell biology and eukaryotic microorganisms
14	Theoretical	Microbial genomics
15	Theoretical	Viral diversity
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	0	2	30
Assignment	15	0	1	15
Reading	2	0	8	16
Individual Work	15	0	1	15
Midterm Examination	1	0	1	1

Final Examination	1	0	1	1
			Total Workload (Hours)	78
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To have information about basic microbiology
2	To learn classification of prokaryotic and eukaryotic microorganisms
3	To have knowledge about metabolism in microorganisms
4	To have information about the nutrition, growth and proliferation of microorganisms
5	To have information about evolution in microorganisms
6	To have knowledge about systematic in microorganisms
7	To understand the differences between prokaryotic and eukaryotic microorganisms
8	To have basic information about microbial genomics
9	To be able to comment on interactions between microorganisms
10	To be able to learn the applications of microorganisms in some applications in biotechnology

Programme Outcomes *(Olive Cultivation and Olive Processing Technology)*	
1	To be able to identify olive, soil and water and to having knowledge these
2	To be able to comprehend knowledge botany and fruit growing
3	To be able to comprehend table olive technology and to apply
4	To be able to comprehend knowledge basic biochemistry and olive oil chemistry and to have olive oil with modern and traditional systems, to have knowledge olive oil rafinery, basic process and to have apply olive oil extraction
5	To be able to preserve olive and olive products in appropriate condition
6	To be able to comprehend growing olive plant with necessary agricultural methods and to have general maintenance of olive tree
7	To be able to evaluate olive by-products
8	To be able to comprehend knowledge about vegetable genetic
9	To be able to comprehend knowledge occupational safety and have apply first aid
10	To be able to apply necessray laboratory analysis in olive and olive products production
11	To be able to apply hygiene and sanitation rules in factory
12	To be able to comprehend knowledge of proffessional ethics and responsibility
13	To be able to comprehend knowledge marketing of olive products and to have olive management
14	To be able to communicate verbally and literally
15	To be able to comprehend planning olive growing and production area
16	To be able to comprehend knowledge vegetable ecology and protection of environment