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 *(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.