AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Basic Microbiology								
Course Code	TBB205		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	The aim of this course, students classification of bacteria, anatomical and physiological characteristics of teaching.								
Course Content	The history of microbiology, classification and nomenclature of bacteria, morphological characteristics, anatomical structures and chemical structure, nutrition bacteria, bacterial enzyms, growt and reproduction of bacteria that are effective factors to control microbial reproduction								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study, Individual Study, Problem Solving								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Temel Mikrobiyoloji, Arda,M., Medisan Yayınları Seri No:25
2	Genel Mikrobiyoloji , Arda,M., A.Ü. Veteriner Fakültesi
3	Introduction to soil microbiology, Alexander, M., 1977., 2nd ed. John Wiley & Sons, Inc., New York.
4	Laboratory Exercises in Microbiology, Pelczar, M.J., 1965,
5	Mikrobiyolojide Sayım Yöntemleri, Gürgün V., Halkman K., 1990

Week	Weekly Detailed Course Contents	
1	Theoretical	The history of microbiology and classification of bacteria
	Practice	Introduction of bacteriology laboratory
2	Theoretical	Nomenclature of bacteria
	Practice	Introduction of tools and materials used in bacteriology
3	Theoretical	Morphology of bacteria
	Practice	Preparation of bacterial culture medium
4	Theoretical	Gram (+) Bacteria Cocci Micrococcus,Diplococcus,Streptococcus,Staphylococcus,Tetracoccus,Sarcina
	Practice	Application made in bacteriological liquid and solid culture medium
5	Theoretical	Gram(-) Bacteria Bacilli
	Practice	Application passaged on bacteriological culture medium
6	Theoretical	Anatomical structures of bacteria External structure, cell wall, capsule, microcapsule
	Practice	Examination of colonies growth on bacteriological culture medium
7	Theoretical	Active and passive transport
	Practice	Examination of motility in the bacteria (for motile bacteria)
9	Theoretical	Flagella,Fimbria
	Practice	Examination of motility in the bacteria (for non- motile bacteria)
10	Theoretical	Motility of Bacteria Passive, Active, Colony,Spiral Motion and Gliding
	Practice	Stained Methods Gram stained smear of coccus
11	Theoretical	Internal structure of bacteria,nucleus
	Practice	Stained Methods Gram stained smear of bacillus
12	Theoretical	Cell's internal organelles
	Practice	Stained Methods Giemsa stained smear of bacteria
13	Theoretical	Nutrition of bacteria
	Practice	Stained Methods Giemsa stained smear of bacteria

14	Theoretical	Bacterial enzymes
	Practice	Stained Methods Methylene blue- stained smear of bacteria
15	Theoretical	Antimicrobial agents, control of growth, disinfectants and disinfection
	Practice	Stained Methods Methylene blue- stained smear of bacteria

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Midterm Examination	1	0	20	20
Final Examination	1	0	24	24
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes

1	To teach the history of microbiology
2	Teaching of the classification of bacteria
3	Teaching the anatomical structure of bacteria
4	Teaching of the bacterial growth
5	Teaching of the disinfection and sterilization

Programme Outcomes *(Dairy Technology)*

1	Having sufficient infrastructure in basic sciences and engineering subjects and ability to use the theoretical and applied info instantly in this field.
2	Determining the modern techniques, tools and information technologies required for applications related with his field and ability to use them efficiently
3	Ability for planning, projecting, and designing, following up, analyzing and finding target-driven solutions related with his field
4	Ability to have professional ethic and awareness.
5	Ability to work, decide, express opinions orally and in written individually
6	Ability to participate team studies, taking responsibility, making leadership.
7	Ability to conceive Ataturk’s principles and reforms, to communicate in Turkish and foreign language.
8	Ability to comprehend the necessity to learn for a life time, to monitor developments in science and technology and continuously renew himself.
9	Having sufficient level of information about production and quality control of milk and dairy products and also product development, increasing product quality and food security fields.
10	Ability to detect, define, solve problems related with his field and to select and apply suitable methods and modeling techniques for this purpose.
11	To be conscious about workplace applications, worker health, work security and environment subjects, to have knowledge about legal results of the engineering applications related with his subject.

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

	L1	L2	L3	L4	L5
P1	4	4	4	4	4
P9	5	5	5	5	5