

GENERAL MICROBIOLOGY

1	Course Title:	GENERAL MICROBIOLOGY
2	Course Code:	GESZ103
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Öğr. Üyesi NUR YÜKSEK
15	Course Lecturers:	Meslek Yüksek okulları yönetim kurullarının görevlendirdiği öğretim elemanları
16	Contact information of the Course Coordinator:	Öğr. Üyesi Dr. Nur YÜKSEK nuryukse@uludag.edu.tr 0224 294 23 50
17	Website:	
18	Objective of the Course:	To teach a brief History of Microbiology, Classification of Microorganisms, General Features of Bacteria, Molds, Yeasts and Viruses, Effects of Enviromental Factors on Growth of Bacteria, The Equipments and Items used in the Microbiological Laboratory, Preparation of Culture Media, Microscopic Examination of Microorganisms.
19	Contribution of the Course to Professional Development:	To teach a brief History of Microbiology, Classification of Microorganisms, General Features of Bacteria, Molds, Yeasts and Viruses, Effects of Enviromental Factors on Growth of Bacteria, The Equipments and Items used in the Microbiological Laboratory, Preparation of Culture Media, Microscopic Examination of Microorganisms.
20	Learning Outcomes:	
	1	Microbiology definition,purpose and history
	2	Clasification of microorganisms
	3	Morpohological and aanatomical structure of bacteria
	4	Bacterial growth and nutritional needs.
	5	Important microorganisims interms of Food Microbiology
	6	Food borne parasitic infections
	7	Bacteri that cause food poisoning
	8	Foodborne viral diseases
	9	Sterilization and disenfction methods
	10	Aseptic and antiseptic methods
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	A brief History of Microbiology	general rules in the general microbiology laboratory
2	Classification of Microorganisms	Aseptic technique ,basic rules and application.
3	Morphology of Bacteria	Tools and equipment used in general microbiology laboratory (autoclave, pasteur oven, laminar flow, Bunsen burner, incubator etc.)
4	Morphology of the Colonies	MICROSCOPE AND FEATURES TO CONSIDER IN ITS USE.
5	Bacterial Cell Structure (morphological)	Sterilization techniques
6	Bacterial Cell Structure (anatomic)	Dry sterilization techniques
7	Repeating courses and midterm exam	Moist steam (steam pressure)
8	Chemical composition of Bacteria	Nutrition medium sterilization
9	Microbial Nutrition	Sterilization principles of empty glassware
10	The Growth of Bacteria in Broth and on Agar Medium, Measurement of Growth.	Nutrition medium preparation
11	Effects of Environmental Factors on Growth of Bacteria	microbiological sampling
12	General Features of Molds	inoculation and culture principle techniques.
13	General Features of Yeasts	preparation for staining bacteria
14	General Features of Viruses	Simple painting and Gram painting (Differential diagnosis) techniques

22	Textbooks, References and/or Other Materials:	1- Temel Mikrobiyoloji, 2. Baskı Prof. Dr. Mustafa Arda. Medisan Yayın Serisi no 46. (2000). Medisan Yayınevi, Ankara
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Activities		Number	Duration (hour)	Total Work Load (hour)
Theoretical	4	1. Biology of Microorganisms (7th Edition), 2003, Thomas	2.00	28.00
Practicals/Labs	14		2.00	28.00
Self study and preparation	5	2. Fundamentals of Microbiology. 4th Edition, 1994, Edward	3.00	39.00
Homeworks	0		0.00	0.00
Projects	0	3. Schlegel (1999) Blackwell Science.	0.00	0.00
Field Studies	0	4. Bacillus subtilis and its Closest Relatives from Genes	0.00	0.00
Midterm exams	1	5. Philip L. Sonenshein, James A. Hoch, and Richard M. Losick (1999) ASM Press	10.00	10.00
Others	0		0.00	0.00
Final Exams	1	(2015), Çağaloğlu, İstanbul	10.00	10.00
Total Work Load				125.00
Total work load/ 30 hr				3.83
TERM LEARNING ACTIVITIES		NUMBER	WEIGHT	
ECTS Credit of the Course				4.00

Midterm Exam	1	35.00
Quiz	1	5.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	3	100.00

Contribution of Term (Year) Learning Activities to Success Grade	40.00
Contribution of Final Exam to Success Grade	60.00
Total	100.00

Measurement and Evaluation Techniques Used in the Course	Measurement and evaluation is carried out according to the principle of Bursa Uludağ University Associate and Undergraduate Education Regulation.
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24	ECTS / WORK LOAD TABLE															
25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	2	5	3	4	4	4	4	4	4	4	3	2	0	0	0
ÖK2	5	2	5	3	1	1	1	3	4	1	4	2	2	0	0	0
ÖK3	5	4	4	3	1	1	1	3	4	1	4	2	2	0	0	0
ÖK4	5	4	5	3	3	1	5	5	5	3	4	4	2	0	0	0
ÖK5	5	3	4	3	5	4	5	5	5	5	4	5	2	0	0	0
ÖK6	5	3	4	3	4	4	5	4	5	4	4	4	2	0	0	0
ÖK7	5	3	4	3	4	5	5	5	4	4	5	4	2	0	0	0
ÖK8	5	3	3	3	4	4	4	4	4	4	5	4	2	0	0	0
ÖK9	5	3	4	3	5	4	5	5	5	5	5	5	2	0	0	0
ÖK10	5	0	4	3	5	4	5	5	5	5	5	5	2	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			