

DIAGNOSTIC METHODS IN MICROBIOLOGY

1	Course Title:	DIAGNOSTIC METHODS IN MICROBIOLOGY
2	Course Code:	BYT5008
3	Type of Course:	Optional
4	Level of Course:	Second Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	To be successful in Diagnostic Methods in Microbiology - Basic Concepts
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. Cüneyt ÖZAKIN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Prof. Dr. Cüneyt ÖZAKIN ozakin@uludag.edu.tr, 0224.2954115, Bursa Uludağ Üniversitesi Tıp Fakültesi Temel Tıp Bilimleri Binası, Tıbbi Mikrobiyoloji Anabilim Dalı, 16059 Nilüfer, Bursa
17	Website:	
18	Objective of the Course:	To learn about fast, automated identification and sensitivity test methods, systems, molecular diagnosis and epidemiological analysis techniques in microbiology and to make applications specific to their areas of use.
19	Contribution of the Course to Professional Development:	Integrating theoretical knowledge with clinical laboratory practice.
20	Learning Outcomes:	
	1	To know the methods used for diagnosis in microbiology;
	2	To be able to select and apply the appropriate diagnostic method for microbiological diagnosis;
	3	To interpret the results obtained from the diagnostic methods;
	4	To be able to compare microbiological diagnostic methods;
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Direct Diagnosis in Microbiology- Microscopic Diagnosis; Light Microscopy and Electron Microscopy	

2	Direct Diagnosis in Microbiology- Culture; Gram positive cocci and their identification	
3	Direct Diagnosis in Microbiology- Culture; Gram negative bacilli and their definitions	
4	Direct Diagnosis in Microbiology- Culture; Gram positive bacilli and their definitions	
5	Direct Diagnosis in Microbiology- Culture; Gram positive bacilli and their definitions	
6	Direct Diagnosis in Microbiology- Nucleic Amplification	
7	Direct Diagnosis in Microbiology- Hybridization	
8	Maldi TOF MS method	
9	Flow Cytometry Methods	
10	Indirect Diagnosis in Microbiology- Antigen and Antibody	
11	Indirect Diagnosis in Microbiology- Precipitation, Agglutination	
12	Indirect Diagnosis in Microbiology- Neutralization, Complement fixation test	
13	Indirect Diagnosis in Microbiology- Enzyme Immuno Assay (EIA, ELISA, ELFA)	
14	Indirect Diagnosis in Microbiology- Immunoflourescent methods	

Textbooks, References and/or Other		1	Murray PR, Baron EJ, Tenover JC, Tenover MC	
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	3.00	42.00
Practicals/Labs		0	0.00	0.00
Self study and preperation		14	3.00	42.00
Homeworks		0	0.00	0.00
TOTAL LEARNING ACTIVITIES		28	6.00	84.00
Field Studies		0	0.00	0.00
Midterm Exam		0	0.00	0.00
Midterm exams		0	0.00	0.00
Quiz		0	0.00	0.00
Others		0	0.00	0.00
Home work project		0	0.00	0.00
Final Exams		1	96.00	96.00
Final Exam		1	100.00	100.00
Total Work Load				180.00
Total work load/ 30 hr		1	100.00	6.00
Contribution of Term (Year) Learning Activities to				0.00
ECTS Credit of the Course				6.00

Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Evaluation is made with a classical written exam or homework.

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	1	3	3	3	1	2	0	4	2	1	0	0	0	0	0	0

ÖK2	2	3	3	3	2	1	0	3	2	0	0	0	0	0	0	0
ÖK3	1	1	3	2	3	2	2	1	1	0	0	0	0	0	0	0
ÖK4	1	3	4	2	2	2	2	4	1	1	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			