

Dentistry (English)			
Bachelor	TR-NQF-HE: Level 6	QF-EHEA: First Cycle	EQF-LLL: Level 6

Course Introduction and Application Information

Course Code:	DENT107		
Course Name:	Basic Microbiology		
Semester:	Spring		
Course Credits:	<div>ECTS</div> <div>4</div>		
Language of instruction:	English		
Course Condition:			
Does the Course Require Work Experience?:	No		
Type of course:	Compulsory Courses		
Course Level:	<div>Bachelor</div> <div>TR-NQF-HE:6. Master`s Degree</div> <div>QF-EHEA:First Cycle</div> <div>EQF-LLL:6. Master`s Degree</div>		
Mode of Delivery:	Face to face		
Course Coordinator:	Dr. Öğr. Üy. DENİZ SERTEL ŞELELE		
Course Lecturer(s):	Ayhan Mehmetoğlu, Deniz Sertel Şelale		
Course Assistants:			

Course Objective and Content

Course Objectives:	<p>The aim of this course is to convey information on;</p> <ol style="list-style-type: none"> 1. the basic structures of infectious agents, 2. the basic laboratory methods for examination of samples that may carry the infectious agents, 3. the basic mechanisms of immune response to control the infectious diseases. 4. basic principles of sterilization, disinfection, and antisepsis.

Course Content:	<p>This course teaches medical microbiology, including topics on Bacteriology, Virology, Mycology, Parasitology, and Immunology.</p> <p>Infectious agents, their basic structures and biology, laboratory methods for examination and basic immune reply mechanisms described.</p>
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Learning Outcomes

The students who have succeeded in this course;

- 1) Defines life, biodiversity, taxonomy, micro- and macroevolution, and microbiota.
- 2) Explains basic features of bacteria, viruses, fungi, and parasites,
- 3) Describes the basic laboratory methods for examination of samples that may carry the infectious agents,
- 4) Describes the basic mechanisms of immune response to control the infectious diseases.
- 5) Lists the basic principles of sterilization, disinfection, and antisepsis.

Course Flow Plan

Week	Subject	Related Preparation
1)	Introduction to Microbiology (1 hour), Microbial Classification (2 hours)	-
2)	History and Scope of Microbiology (2 hours) Human Microbiome (1 hour)	-
3)	General Structures of Bacteria (3 hours)	-
4)	Laboratory Practice: Introduction to microbiology laboratory, GLP rules, Biosafety (3 hours)	-
5)	General Structures of Viruses (3 hours)	-
6)	General Structures of Fungi (3 hours)	-
7)	General Structures of Parasites (3 hours)	-
8)	Midterm exam	
9)	Growth, Cultivation, and Identification of Bacteria (3 hours)	-
10)	Bacterial Genetics (2 hours) Sterilization, Disinfection, Antisepsis (1 hour)	-
11)	Bacterial Pathogenesis (3 hours)	-
12)	Diagnostic Methods in Microbiology (3 hours)	-
13)	Introduction to Immunology (Components of Immune System, Innate Immune Response, Adaptive Immune Response) (3 hours)	-
14)	Laboratory Practice: Microbiology of Normal Flora of the Skin/Throat (Sampling) &	-

Sources

Course Notes / Textbooks:	Medical Microbiology, 9th Ed Patrick R. Murray & Ken S. Rosenthal & Michael A. Pfaller, Elsevier 2020.
References:	Mims' Medical Microbiology and Immunology, 6th Edition, 2019.

Course - Program Learning Outcome Relationship

Course Learning Outcomes	1	2	3	4	5
Program Outcomes					
1) Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	2	2	2	2	2
2) Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.					
3) Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.	2	2	2	2	2
4) Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.	2	2	2	2	2
5) Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	2	2	2	2	2
6) Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.					
7) Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.					
8) Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.					
9) By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.					

10) During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data.	1	2	3	4	5
11) Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities.					
12) In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society					
13) Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes.					
14) Differentiates the signs and symptoms commonly encountered in the dentistry profession, makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority.					
15) Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.					

Course - Learning Outcome Relationship

No Effect	1 Lowest	2 Average	3 Highest

	Program Outcomes	Level of Contribution
1)	Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	2
2)	Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.	
3)	Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.	2
4)	Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.	2
5)	Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	2

6)	Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.	
7)	Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.	
8)	Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.	
9)	By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.	
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15)	Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.	

Assessment & Grading

Semester Requirements	Number of Activities	Level of Contribution
Midterms	1	% 40
Final	1	% 60
total		% 100
PERCENTAGE OF SEMESTER WORK		% 40

PERCENTAGE OF FINAL WORK	% 60
total	% 100

Workload and ECTS Credit Calculation

Activities	Number of Activities	Preparation for the Activity	Spent for the Activity Itself	Completing the Activity Requirements	Workload
Course Hours	26	1	1		52
Laboratory	13	1	1		26
Midterms	1	10	1		11
Final	1	10	1		11
Total Workload					100