

BDB206- Food Microbiology

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Food Microbiology	BDB206	4th Semester/Spring	2	0	2	4
Prerequisites	None					
Language of Instruction	Turkish					
Course Type	Compulsory					
Learning and Teaching Techniques of The Course	Lecture, Question-answer, Experiment					
Instructor(s)						
Goal	The basic concepts of food microbiology and its applications.					
Learning Outcomes	1. Learn the basic concepts and applications of food microbiology. 2. Learn causes of food poisoning and prevention methods. 3. Learn the factors causing food spoilage and pathogen indicators. 4. Learn microbial spoilage in basic food groups and contaminants. 5. Learn microbial count in foods and laboratory applications.					
References	1. Prof. Dr. Osman Erkmen (Editör) (2017) Gıda Mikrobiyolojisi. Efil Yayınevi, 5. Baskı, Ankara. 2. Beslenme ve Diyet Dergisi https://beslenmevediyetdergisi.org/index.php/bdd					

Course Outline Weekly:

WEEKS	TOPICS
1. Week	Food production, consumption problems, health risks from foods in the world
2. Week	Ways of transmission of food-borne microorganisms
3. Week	Factors affecting microbial growth in foods
4. Week	Microbial metabolism of food components, Food deterioration indicators, Pathogen indicators in foods
5. Week	Microbial spoilage in meat, milk and products
6. Week	Microbial spoilage in cereals, vegetables and fruits
7. Week	Food-borne microbial diseases, their importance for public health and ways of prevention
8. Week	MIDTERM
9. Week	Invasive infections
10. Week	Toxicoinfections, Intoxications
11. Week	Food and waterborne parasites, Natural food toxins
12. Week	Food-borne molds, viruses and genetically modified foods
13. Week	General principles in food preservation methods
14. Week	Food preservatives and fermentation
15. Week	Relation between digestive system microbiota and nutrition

Student Work Load Table

Activities	Number	Duration	Total Work Load
Course Duration	14	2	28
Laboratory	14	2	28
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	2	28
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	6	6
Final Exam Preparation Time	1	10	10
Total Work Load (hour) / 25(s)	100/ 25=4		
ECTS	4		

Evaluation System

Mid-Term Studies	Number	Contribution
Midterm exams	1	%30
Quiz	5	%20
Laboratory	1	%30
Practice		
Field Study		
Course Internship (If There Is)		
Homework's	5	%20
Presentation and Seminar		
Project		
Other evaluation methods		
Total Time To Activities For Midterm		100
Final works		
Final	1	%100%
Homework		
Practice		
Laboratory		
Total Time To Activities For Midterm		100
Contribution Of Midterm Studies On Grades		40%
Contribution Of Final Exam On Grades		60%
Total		100

The relationship between learning outcomes and the program qualifications of the courses

Program Qualifications	Learning outcomes					
	L.O.1	L.O. 2	L.O.3	L.O.4	L.O.5	L.O.6
1. Enables the students to use theoretical knowledge based on basic and social sciences in practice.	5	5	5	5	5	5
2. Has the ability to use equipments and information Technologies required for the professional practice efficiently.	5			4		
3. Knows his rights, duties and responsibilities towards the society, colleagues, and other professions, individuals and patients, and learns how to behave in harmony with the professional ethical rules.			3			2
4. When confronted with problems within any field of Nutrition and Dietetics, has the ability to observe, diagnose, assess, report and come up with solutions thanks to their up-to-date knowledge and skills.			4		4	
5. Gains efficient working skills based on the principles of effective communication, responsibility, solution-oriented working in disciplinary and interdisciplinary conditions.	2	2	2	2	2	2
6. Has the ability to make a plan for a research individually or as part of a team, make experiments, collect and analyze the data, interpret and write a report by using theoretical / practical knowledge and skills gained in the field of Nutrition and Dietetics.	3	3	3	3	3	3
7. Develops suggestions for healthy/sick individuals and those at risk considering their lifelong diet.		2	3	3	2	2
8. Gains knowledge to contribute to the diet plans and policies to be developed based on the needs of the individuals and the society.		3	4		4	4
9. Improves themselves by following the latest advances in their profession nationally and internationally, and acquires awareness in lifelong learning.	2	2	3	2	2	2

Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent