



**AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
VETERINARY FOOD HYGIENE AND TECHNOLOGY
FOOD HYGIENE AND TECHNOLOGY (VETERINARY)
FOOD HYGIENE AND TECHNOLOGY (VETERINARY) MASTER
COURSE INFORMATION FORM**

Course Title	Food Microbiology								
Course Code	VBH503		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	6	Workload	150 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To give the basics of food microbiology and detailed knowledge about food poisoning cases/infections caused by food borne agents								
Course Content	The microbiological ecology of foodstuff, the factors affecting the growth of microorganisms, pathogens and their features, food spoilage microorganisms and the mechanism of food spoilage								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Jay (1996) Modern Food Microbiology, Chapman and Hall, 2006
2	Erol İ. (2008). Gıda Hijyeni

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
	Practice	Introduction
2	Theoretical	The definition of food microbiology.
	Practice	Demonstration of food microbiology laboratory
3	Theoretical	Microbiological ecology of foodstuff.
	Practice	Detailed explanations related with the equipment used for routine laboratory work , their usage aims and mechanisms
4	Theoretical	Microorganisms cause spoilage in foodstuff.
	Practice	Culture media, preparation of culture media and plating out methods
5	Theoretical	Introduction to the food pathogens.
	Practice	Basic staining methods and microscope using techniques
6	Theoretical	Foodborne bacterial pathogens.
	Practice	Basic routine analysis-(Total Viable Count)
7	Theoretical	Foodborne bacterial pathogens.
	Practice	Examination of foods for coliforms
8	Practice	Examination of foods for E. coli
	Intermediate Exam	Midterm exam
9	Theoretical	Foodborne bacterial pathogens.
	Practice	Microbiological analysis of foods for Salmonella
10	Theoretical	Foodborne bacterial pathogens.
	Practice	Microbiological analysis of foods for Listeria
11	Theoretical	Foodborne bacterial pathogens.
	Practice	Examination of foods for Clostridia
12	Theoretical	Foodborne viral pathogens
	Practice	Examination of foods for Bacillus
13	Theoretical	Food borne viral pathogens.
	Practice	Examination of foods for Campylobacter
14	Theoretical	Food spoilage



14	Practice	Examination of foods/water for Pseudomonas
15	Theoretical	Foodborne parasitic pathogens.
	Practice	Discussion/ Evaluation of the analysis reports

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Reading	14	0	2	28
Midterm Examination	1	24	1	25
Final Examination	1	40	1	41
Total Workload (Hours)				150
[Total Workload (Hours) / 25*] = ECTS				6

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To gain sufficient knowledge about microbiological ecology of foodstuff
2	To know possible health risks of foods from animal origin
3	To have sufficient knowledge related with pathogenesis of food borne agents
4	To obtain detailed knowledge related with defence mechanism of body to the food borne agents
5	To understand mechanism of microbial spoilage.
6	Develop a better understanding about the prevention from food borne infections/intoxications
7	To gain sufficient knowledge and practical experience related with isolation identification and enumeration of food pathogens and determination of toxins

Programme Outcomes (Food Hygiene and Technology (Veterinary) Master)

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

	L1	L2	L3	L4	L5	L6	L7
P1	5	5	5	5	5	5	5
P2	5	5	5	5	5	5	5
P3	5	5	5	5	5	5	5
P4	5	5	5	4	5	5	5
P6	5	5	5	5	5	5	5
P9	4	5	5	5	5	5	5
P10	5	5	5	5	5	5	5
P11							5
P12							5
P13							5

