



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Water Hygiene and Analysis Methods							
Course Code		VBH543		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	128 ( <i>Hours</i> )	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		The importance of water, water requirement, importance of water for human health, laboratory analysis of the water-related							
Course Content		Presence of water in the world, physical, chemical and microbiological properties of water. Inspection methods applied to waters, Water color, turbidity, pH, odour measurements. The microbiological, chemical measurements in waters							
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	Erol, İ., 2007. Gıda Hijyeni ve Mikrobiyolojisi. ISBN 978-975-00131-0-9, Pozitif Matbaacılık Ltd. Şti., Ankara
2	Uğur, M., Nazlı, B., Bostan, K. 1999. Gıda Hijyeni. Teknik Yayınları, İstanbul.
3	Demirer, A. 1995. Su Hijyeni. Ankara Üniversitesi, Veteriner Fakültesi, Besin Hijyeni ve Teknolojisi, Teksir.
4	Hazard characterization for pathogens in food and water :guidelines. – Geneva : WorldHealthOrganization, 2003.
5	Benjamin, Mark M. 2002. Waterchemistry 1st ed. – Boston, MAU
6	Lenore S., Clesceri, WEF, Chair Arnold E. Greenberg, APHA Andrew D. Eaton, AWWA 1998. Standard methods for the examination of water and wastewater. Edited by. American Public Health Association, 20 th Edition,

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
	Practice	Introduction
2	Theoretical	Definition and importance of water hygiene
	Practice	Introduction to laboratory equipment and materials
3	Theoretical	The importance of water and water requirement
	Practice	Preparation the equipment and materials for the physical examinations of the waters
4	Theoretical	The importance of water for human health
	Practice	Physical examination of the waters
5	Theoretical	The physical properties of the waters
	Practice	Preparation the equipment and materials for the chemical examinations of the waters
6	Theoretical	Chemical properties of the waters
	Practice	Determination of hardness of water
7	Theoretical	The natural microflora of the water
	Practice	Analysis of organic matter in the water
8	Intermediate Exam	Midterm
9	Theoretical	Water sources
	Practice	Analysis of ammonia, nitrate, nitrite in water
10	Theoretical	The causes of the contamination of the waters
	Practice	Other chemical analysis of water
11	Theoretical	Self-purification of waters and clearing the waters
	Practice	Preparation of media for microbiological examinations waters
12	Theoretical	Water disinfection
	Practice	Searching for coliform bacteria in water and EMS method



13	Theoretical	The important water-borne microorganisms
	Practice	Search for other microorganisms in water
14	Theoretical	Legal regulations related with water
	Practice	Evaluation of the results obtained
15	Theoretical	Discussion
	Practice	Discussion

**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	4	0	5	20
Reading	14	0	1	14
Midterm Examination	1	15	1	16
Final Examination	1	21	1	22
Total Workload (Hours)				128
[Total Workload (Hours) / 25*] = <b>ECTS</b>				5

\*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

1	To learn the importance of water
2	To learn the characteristics of the waters
3	To learn the importance of water for human health
4	To learn water-borne microorganisms
5	To learn legal regulations related with water
6	To learn laboratory analyses of water

**Programme Outcomes** (Food Hygiene and Technology (Veterinary Medicine) 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
P1	5	5	5	5	5	5
P3	1	1	1	1		
P4					2	1
P5						2
P6	3	3	3	3	4	
P7	2	2	2	2	3	3
P9	2	2	2	2		
P10	5	5	5	5	5	5
P11						5
P12						5

