



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		New Techniques in Food Preservation							
Course Code		VBH602		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	150 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		To learn detail information about factors affecting food spoilage, basic principles of food preservation, food preservation techniques from past to present							
Course Content		Overview of traditional techniques in food preservation, new techniques in food preservation; ultraviolet, irradiation, infrared, radio frequency, ultrasound, high pressure, ozone, nanotechnology, membrane processing, bio protection, non thermal plasma applications							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Conventional and Advanced Food Processing Technologies
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Week	Weekly Detailed Course Contents	
1	Theoretical	Conventional and Advanced Food Preservation Techniques
2	Theoretical	Ultraviolet in Food Preservation and Processing
3	Theoretical	Application of Microwave Technology in Food Preservation and Processing
4	Theoretical	Infrared in Food Preservation and Processing
5	Theoretical	Application of Radiowave Frequency in Food Processing
6	Theoretical	Application of Ultrasonics in Food Preservation and Processing
7	Theoretical	High Pressure Processing
8	Intermediate Exam	Midterm exam
9	Theoretical	Ozone Processing
10	Theoretical	Application of Pulsed Electric Fields in Food
11	Theoretical	Ohmic Heating
12	Theoretical	Nanoparticles and Nanotechnology in Food
13	Theoretical	Membrane Processing
14	Theoretical	Cool plasma veya Non Thermal Plasma
15	Theoretical	Bio Preservation

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	10	2	1	30
Reading	14	0	1	14
Individual Work	10	1	1	20
Midterm Examination	1	6	1	7
Final Examination	1	8	1	9
Total Workload (Hours)				150
[Total Workload (Hours) / 25*] = ECTS				6

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	To know the factors affecting the spoilage of foods
2	To be able to comprehend the principle of inhibition of microbial growth used in food preservation
3	To be able to comprehend the principles of killing of microorganisms from preservation methods used in food preservation
4	To be able to comprehend the principles of prevention of contamination and removal of microorganisms from preservation methods used in food preservation
5	To learn the basic principles of food preservation
6	To learn advanced food preservation techniques appropriate to the type of food

Programme Outcomes (*Food Hygiene and Technology (Veterinary Medicine) Doctorate*)

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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
P2		3	3	4		
P3	5	5	5	5	5	5
P4	5	5	5	5	5	5
P5	4	5	5	5	5	5
P7	5	5	5	5	5	5
P9	5	5	5	5	5	5
P10	4	4	4	4	4	4
P13	4	4	4	5	4	5

