AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Antioxidant Compounds in Foods and Analysis Methods								
Course Code	GMP621		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	8	Workload	200 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The aim of this course is to give information about antioxidant compounds, health effects, extraction and analysis methods, enrichment of foodstuffs with antioxidant compounds.								
Course Content	This course covers free radicals, functions of antioxidants, antioxidant compounds, extraction, purification and analyses of antioxidant compounds, effects of food processing on antioxidant compounds.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Discussion, Individual Study								
Name of Lecturer(s)	Prof. Fatih Mehmet YILMAZ								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	25
Final Examination	1	40
Assignment	1	35

Recommended or Required Reading	
1	Pokorny, J., Yanishlieva, N., & Gordon, M. H. (Eds.). (2001). Antioxidants in food: practical applications. CRC press.
2	Shahidi, F. (1997). Natural antioxidants: chemistry, health effects, and applications. The American Oil Chemists Society

Week	Weekly Detailed Course Contents & Teaching Methods	
1	Theoretical	Formation mechanisms of free radicals and oxidation
2	Theoretical	Effects of antioxidants
3	Theoretical	Antioxidant compounds in foods
4	Theoretical	Antioxidant compounds in foods
5	Theoretical	Extraction and purification methods of antioxidant compounds from foods
6	Theoretical	Extraction of antioxidant compounds from food wastes
7	Theoretical	Analyses of Antioxidant compounds
8	Intermediate Exam	Midterm
9	Theoretical	Measurement methods of antioxidant capacity
10	Theoretical	Measurement methods of antioxidant capacity
11	Theoretical	Enrichment of foods with antioxidant compounds
12	Theoretical	Effect of food processing on antioxidant compounds
13	Theoretical	Project presentations
14	Theoretical	Project presentations
15	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	8	3	154
Term Project	1	20	2	22
Midterm Examination	1	10	2	12
Final Examination	1	10	2	12
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = **ECTS**	8
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	

2	
3	
4	
5	

Programme Outcomes *(Food Engineering Doctorate)*	
1	Developing and investigating the details of current and advanced knowledge in the field of Food Engineering by original thought and/or research on the level of expertise based on the graduate qualification and reaching to the original definitions that bring innovation to science.
2	Gain of ability of develop strategies, policies and implementation plans in the field of food engineering and evaluate the results within the framework of quality processes.
3	Gain of ability to perceive, design, evaluate and finish an original process by using and following the knowledge of the recent developments in the engineering fields.
4	Gain of ability of making critical analysis, synthesis and evaluation of ideas and development in food engineering field
5	Having advanced knowledge of food science and its applications based on doctoral level qualifications.

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

	L1	L2	L3	L4	L5
P1	4	3	4	4	5
P2	4	5	5	5	5
P3	3	4	4	3	3
P4	4	4	3	3	5
P5	3	5	4	5	4