AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Food Allergens								
Course Code	GMP617		Couse Level		Third Cycle (Doctorate Degree)				
ECTS Credit	8	Workload	200 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Gaining knowledge about the various and complex interactions between food components and the intestinal immune system will help students to understand food allergies better and produce safer foods.								
Course Content	Biochemistry, digestibility and intake in the gastrointestinal tract of food allergens. Food-induced hypersensitivity reactions. Tests and strategies currently available for the identification of food allergens and their quantification in food.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	50
Quiz	4	10
Attending Lectures	1	10

Recommended or Required Reading	
1	Food Allergens, Biochemistry and Molecular Nutrition. Velickovic & Jankulovic. 2014

Week	Weekly Detailed Course Contents & Teaching Methods	
1	Theoretical	Gastrointestinal Tract
2	Theoretical	Immune System and Allergic Reactions
3	Theoretical	Food Allergies
4	Theoretical	Intestinal Permeability of Food Antigens
5	Theoretical	Transport of Food Antigens
6	Theoretical	Biochemistry and Molecular Biology of Food Allergens
7	Theoretical	Methods for Allergen Identification and Quantification in Food Matrices
8	Theoretical	Midterm
9	Theoretical	Food Allergens Digestibility
10	Theoretical	Impact of Food Processing on Digestibility and Allergenicity of Food Allergens
11	Theoretical	Microbiota and Allergic Disease
12	Theoretical	Phytochemicals and Hypersensitivity Disorders
13	Theoretical	Potential Allergenicity of New Proteins Introduced by Biotechnology
14	Theoretical	Potential Allergenicity of New Proteins Introduced by Biotechnology
15	Theoretical	Student presentation

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	2	28	2	60
Midterm Examination	1	29	1	30
Final Examination	1	39	1	40
			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	1	5	2	2	1
P2	1	2		2	
P3		1		3	
P4	2	3	3	4	
P5	2	4	5	5	