



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Food Colorants and Uses								
Course Code	GMP622		Course 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 natural pigments in foods, natural and synthetic food colorants and regulations about colorants.								
Course Content	This course covers properties of food colorants, chemical structures, factors affecting pigments' stabilities, natural and synthetic food colorants and regulations about the subject.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Project Based Study, Individual Study, Problem Solving								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Lauro, G. J., & Francis, J. (2000). Natural food colorants: science and technology. CRC Press.
2	Hendry, G. A. F., & Houghton, J. D. (1996). Natural food colorants. Springer Science & Business Media.

Week	Weekly Detailed Course Contents & Teaching Methods	
1	Theoretical	Pigments and classification of pigments
2	Theoretical	Methods for color measurements and instruments
3	Theoretical	Natural & synthetic colorants and health effects
4	Theoretical	Production methods of natural colorants and analyses
5	Theoretical	Stabilization of natural colorants using encapsulation techniques
6	Theoretical	Chlorophylls
7	Theoretical	Carotenoids
8	Intermediate Exam	Midterm
9	Theoretical	Anthocyanins and betalains
10	Theoretical	Myoglobin
11	Theoretical	Curcumin
12	Theoretical	Legal regulations about the uses of colorants in the world and in Turkey
13	Theoretical	Legal regulations about the uses of colorants in the world and in Turkey
14	Theoretical	Project presentations
15	Theoretical	Project presentations
16	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	5	4	4	4	5
P2	4	5	3	4	4
P3	4	3	4	3	3
P4	3	5	4	5	3
P5	4	4	4	4	4

