



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Scientific Research Methodologies							
Course Code		GMP532		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	7	Workload	172 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Objectives of this course are to show the ways of scientific studies and enable them to be sophisticated academicians and/or scientists.							
Course Content		1. Hypothesis development in research, description of the issue and objectives 2. Critical evaluation of literature. 3. Basic Concepts of Scientific Research 4. Scientific Research Design and Stages of a Scientific Research							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Project Based Study, Individual Study, Problem Solving					
Name of Lecturer(s)		Lec. Selda BULCA							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	50
Assignment	3	30

### Recommended or Required Reading

1	Day, R. A. 2001. Bilimsel Bir Makale Nasıl Yazılır ve Yayımlanır? 7. Basım, Çev: Gülay Aşkar Altay, TÜBİTAK
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Week	Weekly Detailed Course Contents	
1	Theoretical	Planning of scientific research
2	Theoretical	Planning of scientific research
3	Theoretical	Project preparation for scientific research
4	Theoretical	Experimental analysis of scientific project
5	Theoretical	Statistical analysis
6	Theoretical	Fundamentals of scientific papers
7	Theoretical	Literature search
8	Intermediate Exam	Mid-term Exam
9	Theoretical	Preperation of seminar, poster and oral presentation
10	Theoretical	Chapter of materials and methods
11	Theoretical	Chapter of results and discussion
12	Theoretical	Chapters of conclusion and acknowledgements
13	Theoretical	Chapters of literature cited
14	Theoretical	Preparation of tables and figures
15	Theoretical	Paper review
16	Final Exam	Final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	7	3	140
Midterm Examination	1	15	1	16
Final Examination	1	15	1	16
Total Workload (Hours)				172
[Total Workload (Hours) / 25*] = ECTS				7

\*25 hour workload is accepted as 1 ECTS



**Learning Outcomes**

1	Define general objectives (general hypothesis) and sub-objectives (sub-hypothesis) of scientific research
2	Implement the stages of the process of a scientific research
3	Evaluate and discuss analysis results
4	Determine the ethical and non-ethical behaviors in a scientific research
5	Choose and implement suitable basic methods and techniques for research objectives
6	Prepare a scientific research in an effective way according to writing rules
7	Identify, formulate, and solve engineering problems

**Programme Outcomes (Food Engineering Master)**

1	To provide further training and research opportunities to food engineers to meet the needs of the food industry
2	To develop and deepen the current and advanced knowledge in the field of food engineering with original thought and / or research at the level of expertise, based on the qualifications of the master
3	To identify, define, formulate and solve problems in applications related to Food Engineering and gain the ability to select and apply appropriate analytical methods and modeling techniques
4	To gain the ability to evaluate the accuracy of the data obtained from food analysis
5	To educate students having research, entrepreneur 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	L6	L7
P1	1						
P2	5	5	5	1	5	4	2
P3	3	3	3		3		4
P4						4	4
P5	3	3	3		3		

