



**AYDIN ADNAN MENDERES UNIVERSITY**  
**GRADUATE SCHOOL OF HEALTH SCIENCES**  
**STEM CELL AND REGENERATIVE MEDICINE (INTERDISCIPLINARY)**  
**STEM CELL AND REGENERATIVE MEDICINE INTERDISCIPLINARY**  
**STEM CELL AND REGENERATIVE MEDICINE INTERDISCIPLINARY MASTER**  
**COURSE INFORMATION FORM**

Course Title	Scientific Research Methods								
Course Code	KHÜ534		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	2	Workload	48 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The course aims to introduce students to the basic concepts of scientific research techniques, to enable them to experience the process of preparing a scientific research proposal, to apply the appropriate research methods and techniques to their studies, to present the findings and results obtained with statistical data as a written report in accordance with scientific writing rules and ethical rules.								
Course Content	Topics such as defining the research topic and problem, researching the source, establishing hypothesis, determining research method and model, ethical principles of scientific publication and ethical standards will be covered.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study								
Name of Lecturer(s)	Prof. Mehmet BİLGİN								

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	1	20

#### Recommended or Required Reading

1	Research Methods for Science, Michael P. Marder, Cambridge University Press, 2011, ISBN 978-0521145848
2	Bilimsel Yöntem ve Araştırma Teknikleri, İbrahim Arslanoğlu, Gazi Kitabevi, 2016, ISBN 9786053443506
3	Ahmet Asan, SCI-EXPANDED, SSCI, AHCI ve ETKİ FAKTÖRÜ (= Impact Factor), Sağlık Bilimlerinde süreli yayıncılık, Türk Tıp Dizini, 2005, 221-263

Week	Weekly Detailed Course Contents	
1	Theoretical	Research methodology
2	Theoretical	Determining the research topic
3	Theoretical	Defining the research problem
4	Theoretical	Scanning resources
5	Theoretical	Writing the hypothesis
6	Theoretical	Determining the research method and model
7	Theoretical	Data collection and analysis
8	Intermediate Exam	Mid-term exam
9	Theoretical	Citation, scientific research writing rules and techniques
10	Theoretical	Interpretation and report writing
11	Theoretical	Principles of scientific publication ethics
12	Theoretical	TÜBİTAK research and publication board regulation, YÖK scientific research and publication ethics directive
13	Theoretical	Research Techniques in Stem Cell and Regenerative Medicine
14	Theoretical	Journal selection, impact factor and screening indexes in Stem Cell and Regenerative Medicine
15	Final Exam	Final exam



**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	1	1	26
Midterm Examination	1	6	2	8
Final Examination	1	12	2	14
Total Workload (Hours)				48
[Total Workload (Hours) / 25*] = ECTS				2

\*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

1	To be able to explain scientific research and its properties
2	To be able to prepare scientific research proposal
3	To be able to apply appropriate research methods and techniques
4	To be able to search and cite literature
5	To learn data collection and analysis techniques
6	To be able to apply information about ethical standards, software and legal limitations
7	To be able to define research methods, journal selection and effect factor in Stem Cell and Regenerative Medicine

**Programme Outcomes (Stem Cell and Regenerative Medicine Interdisciplinary Master)**

1	To have comprehensive and in-depth knowledge of Stem Cell and Regenerative Medicine
2	To have information about stem cell production and characterization
3	To learn stem cell sources, stem cell types and their differences
4	To understand the molecular and genetic structure of stem cells
5	To be able to learn and make stem cell culture methods
6	To be able to adapt the knowledge in the field of stem cells to research in line with current developments
7	To be able to use molecular laboratory methods used in stem cell research
8	Learning in vitro disease models and in vivo experiments related to stem cells
9	To have knowledge about stem cell therapies and clinical use
10	Conduct independent research in accordance with the principles of research and publication ethics

**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
P6	4	4	5	4	5	3	4
P10	5	5	3	4	3	5	5

