

International School of Medicine / Medicine (English)

2023 - 2024 Academic Year

SCIENTIFIC RESEARCH METHODOLOGY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
SCIENTIFIC RESEARCH METHODOLOGY	ISM1013849	Yearly	12+0	0	1
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Committee Course				
Course Coordinator	Assist.Prof. Ayşe Güliz DİRİMEN ARIKAN				
Name of Lecturer(s)	Assist.Prof. Ayşe Güliz DİRİMEN ARIKAN				
Assistant(s)					
Aim	It introduces the fundamental principles of research methodology and explain how these principles are applied for conducting research in medicine and demonstrates how evidence produced through research is applied to solving problems in medicine.				
Course Content	This course contains; Introduction to scientific research, evidence-based data, information and knowledge, Study Designs, Observational Studies, Cross-Sectional Studies, Experimental Studies, Errors and Bias in Scientific Research, Questionnaire Design, Qualitative Research and Preparation Research Protocols,, Preparation of Research Protocols (continue), General Overview.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Makes a definition of data, information, knowledge and explains the differences between them.			16, 9	A	
Lists the types of study designs and explains the characteristics of each design.			10, 16, 5, 9	A	
Explains the types of error and bias in medical studies.			16, 9	A	
Describes how to prepare a questionnaire and the characteristics of it.			10, 16, 5, 9	A	
Explains the basic components of a research protocol and how to prepare it.			10, 16, 5, 9	A	
Teaching Methods	10: Discussion Method, 16: Question - Answer Technique, 5: Cooperative Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Introduction to scientific research, evidence-based data, information and knowledge				
2	Study Designs, Observational Studies, Cross-Sectional Studies				
3	Experimental Studies, Errors and Bias in Scientific Research				
4	Questionnaire Design				
5	Qualitative Research and Preparation Research Protocols,				
6	Preparation of Research Protocols (continue), General Overview				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources	
Power point slides	
1.	Clinical Epidemiology, The Essentials, Sixth Edition, Fletcher G.S. et al., 2021.
2.	Medical Research Essentials 1st Edition, Estetie R., Mc Graw Hill Education, 2014.
3.	Popper Karl, Logic of Scientific Discovery, Popper K, Routledge Classics 2002, Taylor & Francis Group, 2005, ISBN 0-203-99462-0 Master e-book ISBN
4.	Modern Researcher, Barzun Jacques and Graff Henry F., 6th Ed., ISBN-13: 978-0495318705