



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Research Techniques and Ethnical Principles							
Course Code		FZK533		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	6	Workload	150 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The objective of this course is that the postgraduate students, master science and PhD, provide an overview of research methods, designs, and techniques as well as improving an understanding deal with the ethical principles of the science and scientific research in the field of sciences.							
Course Content		To include applying scientific information and research-based knowledge of issues and trends and use appropriate assessment strategies and research methodologies to address authentic issues in the field of sciences. The postgraduate students will also explore the use of action research as a means to improve teaching and learning.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)		Prof. Hüseyin DERİN							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	40
Assignment	1	30

Recommended or Required Reading

1	1- Lecture notes of instructor
2	2- Scientific Research Method, Prof. Dr. Niyazi KARASAR, Ankara-2014
3	3- Thesis writing rules, Graduate School of Natural and Applied Sciences, Adnan Menderes University

Week	Weekly Detailed Course Contents	
1	Theoretical	What is the observation?
2	Theoretical	What is the research issue and proposal? What is the gather and analysis of data? What is the hypothese?
3	Theoretical	What is the scientific question? What is the systematic experiment?
4	Theoretical	What is science ?
5	Theoretical	What are the ethical principles of research?
6	Theoretical	What is the concept of scientific ethic?
7	Theoretical	What is the scientific study? What are the material and method in the scientific studies?
8	Theoretical	What is the scientific result? How is the contribution of the obtaining results questioned to understand the nature? How are the links between the results and the processing of nature revealed?
9	Intermediate Exam	Midterm exam
10	Theoretical	What is the literature survey? How is the literature survey conducted?
11	Theoretical	What are the scientific report writing techniques? How are the references constructed and cited in a scientific study?
12	Theoretical	What are the scientific presentation, its features and techniques?
13	Theoretical	What is the thesis? What are the writing rules of the thesis?
14	Theoretical	What is the scientific paper, its features and writting techniques?
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	14	2	1	42
Midterm Examination	1	14	2	16



Final Examination	1	20	2	22
Total Workload (Hours)				150
[Total Workload (Hours) / 25*] = ECTS				6
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	1. Know all the concepts used in the field of the scientific research
2	2. Know the qualifications of scientific and scientific research.
3	3. Know the parts of a scientific research and the function of these parts within the research.
4	4. Know the scientific method and methods used in the scientific research.
5	5. Criticize the scientific research report given to him in terms of compliance with the scientific criteria he/she has learned.
6	6. Reveal a problem of a scientific research and solve this problem according to the scientific methods.
7	7. Report a scientific research (paper and thesis study etc.) in accordance with the scientific report writing rules.

Programme Outcomes (Physics Master)

1	The student should conceive the concepts in physics and may apply them on her/his own
2	The student should be able to conceive the relationship between the different physics laws and integrity of them and apply them in solving different physics problems
3	The student should know the basic principles of classical, quantum and relativistic physics and use them in the solutions of problems
4	The student should be able to do research in a specific area of physics
5	The student should be able to prepare reports on papers on the subject of her/his research and present her/his research subject in scientific conferences
6	The student should be able to explain the relationship between complicated problems and basic physics laws.
7	The student should be able to use computers for solving complicated physics problems
8	The student should be able to interrelate between the theory and the experiment. If she/he is experimentalist he/she has to explain the theory behind her/his work. If she /he is a theorist she/he should has to know the experiments in her/his subject.

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	5	5	5	4	5	4	5
P2	5	4	5	5	4	5	5
P3	4	5	5	4	4	4	4
P4	4	4	4	3	5	5	3
P5	3	4	3	3	3	4	4
P6	4	3	3	4	3	3	5
P7	5	3	2	5	4	3	3
P8	3	4	3	2	3	3	2

