



AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
MATHEMATICS AND SCIENCE EDUCATION
SCIENCE EDUCATION
SCIENCE EDUCATION MASTER
COURSE INFORMATION FORM

Course Title	Action Research in Science Education								
Course Code	İFB534		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Action research is popular in educational science and science education for over a decade. Action research, is called as teacher research alternatively, includes teachers to develop solution to their problems faced in their own classes or institutions, in line to an action plan. Therefore, the aim of this course is to create awareness about action researches in science education, get knowledge about action research examples, to analyze previous action research studies critically, and construct action research proposals.								
Course Content	Action research design, foundation, background and important terms of action research, critical view on action research, action research proposals.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Project Based Study, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	30
Attending Lectures	14	10
Term Assignment	2	40

Recommended or Required Reading	
1	Johnson, A. P. (2019). Eylem Araştırması El Kitabı.

Week	Weekly Detailed Course Contents	
1	Theoretical	An overview to action research Science, Research, and Instruction
2	Theoretical	Introduction to action research To Use Action Research for Problem Solving
3	Theoretical	Start Literature Review
4	Theoretical	Data Gathering Methods
5	Theoretical	Data Analysis Methods
6	Theoretical	Quantitative Methods in Action Research
7	Theoretical	To Evaluate, Describe, and Propose Research, ve
8	Intermediate Exam	MIDTERM
9	Theoretical	To Report Findings in Action Researches
10	Theoretical	Discussion: Your Action Plan To Write an Action Research Report
11	Theoretical	To Present Your Action Research Action Research as a Master Thesis
12	Theoretical	Strategies for Professional Advancement and Improvement
13	Theoretical	A Critique of an Action Research
14	Theoretical	Presentation of Action Research Proposals
15	Theoretical	Presentation of Action Research Proposals
16	Final Exam	FINAL

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	3	84
Term Project	2	27	3	60
Midterm Examination	1	20	3	23



Final Examination	1	30	3	33
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Differentiates action research from other types of research designs.
2	Knows the types of action research.
3	Selects the type of action research most appropriate to the topic.
4	Critically analyze action research examples in science education literature.
5	Prepares an action research proposal.

Programme Outcomes (Science Education Master)

1	To be able to have an expert theoretical knowledge within the field of science education.
2	To be able to transfer expert knowledge gained in science education into various instructional environment.
3	To be able to integrate science education knowledge with the other disciplines and product functional knowledge
4	To be able to use information and communication technologies efficiently in conceptual learning
5	To be able to find scientific solutions to the problems in the field of science education
6	To be able to evaluate the knowledge critically in the field
7	To be able to participate in team projects in the science education field
8	To be able to adopt lifelong learning strategies to his/her studies
9	To be able to use at least one foreign language efficiently in oral and verbal communication
10	To be able to share national and international data in the field of science education
11	To be able to comprehend and evaluate science-technology-society and environment interactions
12	To be able to comprehends science under the ethical values and take account of ethical considerations
13	To be able to use scientific information in the other domains that is gained in the masters field and have the transfer skills
14	To be able to follow the current development in the science education field
15	To be able to develop strategical plans and evaluate them in the context of quality processes

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	5	5	5	5
P2	2	3	5	5	5
P3	2	3	5	5	5
P4	4	3	4	5	5
P5	3	2	4	4	5
P6	4	3	5	5	5
P7	2	2	3	3	4
P8	3	3	4	5	3
P9	4	3	4	4	5
P10	4	3	4	4	4
P11	3	2	3	3	3
P12	4	2	3	3	4
P13	3	3	4	5	5
P14	4	5	4	5	5
P15	2	3	5	5	5

