



**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	Modern Research In Science Education								
Course Code	İFB504		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Giving information on current research in science education								
Course Content	Investigating current reserach theoretically in science education, discussing example research studies and conducting research								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study								
Name of Lecturer(s)	Prof. Nilgün YENİCE								

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

#### Recommended or Required Reading

1	Sönmez, V. (2004). Program Geliştirmede Öğretmen El Kitabı
2	Açıkgöz, K. Ü. (2002). Aktif Öğrenme
3	Saban, A. (2004). Öğrenme Öğretme Süreci
4	Tan, Ş. (2005). Öğretimi Planlama ve Değerlendirme

Week	Weekly Detailed Course Contents	
1	Theoretical	Discussion of the curriculum in science education
2	Theoretical	Curriculum development in science education
3	Theoretical	Curriculum development in science education
4	Theoretical	Misconceptions in science education
5	Theoretical	Developing teaching materials in science
6	Theoretical	Testing and evaluation in science education
7	Theoretical	Developing teaching skills in science education
8	Intermediate Exam	Midterm
9	Theoretical	Developing learning strategies in science education
10	Theoretical	Research subjects in science education
11	Theoretical	Scanning Turkish and foreign periodicals about science education
12	Theoretical	Examining articles written in Turkish and foreign languages on science education research subjects
13	Theoretical	Students' presentation of article research
14	Theoretical	Revising the research projects prepared in science education
15	Theoretical	Preparing research project on science education and presenting them
16	Final Exam	Term

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	5	10	0	50
Reading	5	9	0	45
Midterm Examination	1	10	2	12



Final Examination	1	20	3	23
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = ECTS	8
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	To be able to acquire knowledge about learning and teaching processes.
2	To be able to learn the teacher's qualifications.
3	To be able to learn current studies in science education.
4	Discuss the research subjects in science teaching.
5	5 Follow the research projects prepared in science education.

### 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		
P3	2	2	2	5	5
P6	4	4	4	5	5
P8	5	5	5	5	5
P9	3	3	3	5	5
P10	5	5	5	5	5
P12			2		
P14	3	3	5	5	5

