



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	Teaching of Socioscientific Issues in Science Education								
Course Code	İFB527			Course Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The direct relationship between science and society has progressed in interaction since mankind's existence. Society is making progress in science in line with its needs, and future progress also affects community life directly or indirectly. This interaction in science and technology can not always be said to have a positive effect on society life. It is thought that it has positive and negative effects on the society life; Complex, open-ended, and uncontroversial controversial issues are known as socioscientific issues (SSI). These topics include the facts of everyday life, and in general, there are topics that are not definitive solutions. The aim of this course is to provide the students with information about the SSI, to enable them to think about these issues, and to enable them to analyze personal, local, global issues within the framework of ethical and moral values.								
Course Content	This course consists of discussing social problems arising from science and technological developments in daily life, providing basic information about these subjects, teaching argument development skills based on evidence about socio-scientific issues, and informing about the use and importance of moral values when deciding on SBS. The course focuses on science technology literacy, sociological aspects, the characteristics and dimensions of SSI, the nature of SSI, the nature of scientific literacy and science, SSI and curriculum, how SSI is implemented, SSI and its argumentation.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion								
Name of Lecturer(s)	Assoc. Prof. Dilek KARIŞAN KORUCU								

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Topçu, M. S. (2015) Sosyobilimsel Konular ve Öğretimi, Pegem Yayıncılık. Sadler, T. D. (2009). Situated learning in science education: Socioscientific issues as contexts for practice. <i>Studies in Science Education</i> , 45(1), 1-42. Sadler, T. D., & Zeidler, D. L. (2005). Patterns of informal reasoning in the context of socioscientific decision making. <i>Journal of Research in Science Teaching</i> , 42(1), 112-138. Zeidler, D. L. (2014). Socioscientific Issues as a Curriculum Emphasis: Theory, Research and Practice. In S. K. Abell & N. G. Lederman (Eds.), <i>Handbook of Research on Science Education</i> (pp. 697-725). Mahwa, NY: Routledge, Taylor and Francis. Zeidler, D. L., Walker, K. A., Ackett, W. A., & Simmons, M. L. (2002). Tangled up in views: Beliefs in the nature of science and responses to socioscientific dilemmas. <i>Science Education</i> , 86(3), 343-367.
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Week	Weekly Detailed Course Contents	
1	Theoretical	Science and Technology literacy
2	Theoretical	Introduction to Socioscientific Issues (SSI)
3	Theoretical	The characteristics and dimensions of the SSI
4	Theoretical	Development and history of SSI
5	Theoretical	The Importance of SSI in science education
6	Theoretical	Teaching framework for SSI teaching
7	Theoretical	Sample lesson plans for SSI teaching
8	Intermediate Exam	mid term
9	Theoretical	SSI and moral perspective
10	Theoretical	SSI and social Media
11	Theoretical	SSI and argumentation
12	Theoretical	SSI and its applications
13	Theoretical	An overview of SSI
14	Theoretical	Examples of SSI
15	Final Exam	final exam



Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	5	10	0	50
Reading	5	9	0	45
Practice Examination	1	20	3	23
Midterm Examination	1	10	2	12
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Recognizing the position and importance of SSI in science education
2	To know the general characteristics of SSI
3	Knowing SSI applications
4	Understanding SSI and its argumentation relationship
5	SSI-based lesson planning

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

