

**LECTURER PLANNING FOR TEACHING SCIENCE AND TECHNOLOGY-I
FOR THE FACULTY OF EDUCATION
(TST 303)**

Type of Course Unit	COMPULSORY
Course name	TEACHING SCIENCE AND TECHNOLOGY-I
Course code	TST 303
Course level	FIRST CYCLE
The AKTS Credit (ECTS)	4
Hours p/week(theoretical)	3
Hours p/week(application)	0
Hours p/week(Laboratory)	0
Years of the course	THIRD CLASS
Semester of the course	PRIMARY
Lecturer	PROF.DR. MEHMET ARSLAN
Teaching system	FORMAL EDUCATION / FACE TO FACE
Language	TURKISH
Pre-conditional course	NONE
Other suggestions	NONE
Internship status	NONE
The Aim	Making students science literate. Improve the mental and hand ability. To be aware of the up to date practices and inclinations. Understanding the properties of elementary science curriculum. Understanding the relations among science-technology-society-environment. Make technology literacy.
Outcomes	1. Able to be scientifically literate citizens 2. Develop mental and hand abilities 3. Be aware of the up to date practices and inclinations 4. Comprehend the properties of elementary science curriculum 5. Grasp the relations among science-technology-society-environment in the light of constructivist perspective 6. Achieve knowledge on the nature of science and technology 7. Get to know science and technology curriculum and develop teaching activities
Course contents	Science Education and basic concepts about science teaching. Science, technology, scientific knowledge and characteristics of scientific method, science and technology literacy; connection of science, technology, society and environment; attitude of science, goals of science education, historical development of science education in Turkey and the World. constructivism and science education, cognitive development and science education, scientific Development and science education, properties of science and technology curriculum and relationship of other disciplines, development cognitive process and sample applications.

Detailed course outline	WEEK	TOPICS	
		Theoretical Courses	Application
	1	Introduction of course program	
	2	Science, features of science, types of science	
	3	Aims of science and technology education, science and technology literacy, general properties of some science and technology curricula	
	4	New science and technology curriculum, principal approach and vision of the curriculum, its content	
	5	Learning, teaching, education, learning theories, Piaget's learning theory, Dewy and Vygotsky's perspectives	
	6	Gagne, Bruner and Ausubel perspectives and constructivist learning theory	
	7	Learning strategies	
	8	Inquiry approach, Learning cycle approach and 4E,	
	9	Mid-term exam; Assessment (1)	
	10	Laboratory-aided science and technology teaching	
	11	Cooperative and collaborative learning	
	12	Reflective teaching	
	13	Presentation of prepared sample lecture	
	14	Presentation of prepared sample lecture	
	15	Presentation of prepared sample lecture	
	16	Final Exam	
Course book Reading book		<ul style="list-style-type: none"> •Fen ve Teknoloji Öğretimi: Editor; Yrd. Doç. Dr. Özgür Taşkın, Yrd. Doç. Dr. Özlem Koray. Lisans Yayıncılık. •Fen Bilgisi Öğretimi: Prof. Dr. Fitnat Kaptan, MEB yayınları. •Aktif Öğrenme: Kamile Ün Açıkgöz, Eğitim Dünyası Yayınları,2002,İzmir •Ayas, A. vd. (2008). Kuramdan uygulamaya fen ve teknoloji öğretimi. Pegem A Yayıncılık, Ankara •Çepni, s. (2005). Kuramdan Uygulamaya Fen ve Teknoloji Öğretimi, Pegem yayıncılık •Çil, E., & Çepni, S. (2009). Fen ve Teknoloji Programı (Tanıma, Planlama, Uygulama ve SBS'yle İlişkilendirme) 1. ve 2. Kademe Öğretmen El Kitabı, Pegem yayıncılık •Ann M. L. Cavallo, Edmund A. Marek, (1997). The Learning Cycle: Elementary School Science and Beyond: 	

Review: Activities are given in detail in the section of "Assessment Methods and Criteria" and "Workload Calculation"			
Semester activities			
Homework	1	%20	
Midterm	1	%20	
Final exam	1	%60	
Total	3	%100	
The contribution of the semester activities to the midterm exam		%40	
The contribution of semester exam activities to the grade		%60	
	TOTAL	%100	
The Calculation of workload in terms of learning,teaching and evaluation activities.			
Activities	No	Time	Total work
Hours p/week	3	14	42
Homework	4	6	24
Internet and library research	5	4	20
Midterm	1	2	2
a) Exam	1	6	6
b) Individual study for the exam			
Final exam	1	2	2
a) Exam	1	6	6
b) Individual study for exam			
Individual Reading	6	3	18
TOTAL WORKLOAD (HOUR)			120
The course the AKTS credit of = Total workload/(30hours AKTS) 120/30 = 4 ECTS			

Program and Learning Outcomes

Learning Outcomes	Program Outcomes											
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
LO 1	3	3	4	5	4	5	5	3	4	4	3	4
LO 2	4	3	3	5	5	5	4	4	3	3	3	3
LO 3	5	5	4	4	3	4	4	3	3	4	4	3
LO 4	3	3	4	4	5	5	4	4	2	2	3	5
LO 5	4	4	3	3	5	5	4	5	5	4	4	5
LO 6	3	4	5	5	4	2	2	3	3	3	3	2
LO 7	4	4	4	2	2	5	5	5	4	3	3	2
LO 8	0	0	0	0	0	0	0	0	0	0	0	0
LO 9	0	0	0	0	0	0	0	0	0	0	0	0
LO 10	0	0	0	0	0	0	0	0	0	0	0	0
LO 11	0	0	0	0	0	0	0	0	0	0	0	0
LO 12	0	0	0	0	0	0	0	0	0	0	0	0

***Level of Contribution: 1 Very low 2.Low 3.Middle 4. High 5.Very High**