

F. Course Description					
Course Name		Economics of Technology and Innovation			
Course Language		Turkish			
Course Level		Associate Degree ()	First Cycle (x)	Second Cycle ()	Third Cycle ()
Mode of Delivery					
Formal (x)		Distance Learning ()		Others ()	
Course Type		Course Unit Code		Course Code	
Required ()	Elective (x)			IKT386	
Theory (Hours)	Application (Hours)	Total	Semester	National Credits	ECTS
3	-	3	Spring	3	4
Course Objectives		This course aims to introduce economics of technology and innovation within the frameworks of microeconomic and macroeconomic approaches, and science and technology policies in theoretical and applied considerations.			
Course Content		The discussion of science, technology and innovation within conceptual and historical ways; micro and macro approaches, measurement methods, sectorial analyses, and science and technology policies.			
Pre-requisites		Introduction to Economics 1 -2			
Recommended Elective Courses					
Course Learning Outcomes		<ol style="list-style-type: none"> 1. Defines and interprets the concepts of economics of technology and innovation. 2. Explains the nexus of science, technology and innovation. 3. Has ability to analyze economics of innovation since Industrial revolution. 4. Analyzes the role of technology on the transformation of global economy. 5. Could recommend to design industrial policy in the context of technology and innovation. 			
Course Coordinator					
Course Lecturer(s)		Yrd. Doç. Dr. Ünal TÖNGÜR			
Course Assistants					
Teaching Methods					
(x) Oral Presentation	() Case Study	(x) Computer assisted			
(x) Discussion	() Drama	() Laboratory			
(x) Problem Solving	() Invention	()			
() Experiment	() Project	()			
Course Notes / Textbooks		<ol style="list-style-type: none"> 1. Erdil, E., M.T. Pamukçu, İ.S. Akçomak ve M. Tiryakioğlu (2016), Bilim, Teknoloji ve Yenilik, İstanbul Bilgi Üniversitesi Yayınları. 2. Freeman, C. ve L. Soete (2003), Yenilik İktisadı, TÜBİTAK Yayınları. 3. Vizyon 2023 Projesi Raporları, TÜBİTAK. 			
Evaluation System					
(X) Direct Conversion System				Relative Assessment	
		Requirements	Number	Percentage of Grade	
		Attendance	15		
		Quizzes			



Measurement and Evaluation System	Midterm Exam(s)	1	30%
	Homework(s) / Seminar(s)	2	10%
	Term Assignment(s) / Project		
	Application (Laboratory, Atelier , Field Work, Problem Based Learning- PBL Reports)		
	Others (.....)		
	Final Exam	1	60%
	Total		% 100

Distribution of Topics By Weeks		
Weeks	Topics	Preparatory Work
1	Science, technology and innovation: Introduction	Related chapters in references
2	Science, technology and innovation: Historical perspectives	Related chapters in references
3	Macroeconomics of technology and innovation	Related chapters in references
4	Microeconomics of technology and innovation	Related chapters in references
5	Measurement methods of technology and innovation	Related chapters in references
6	Measurement methods of technology and innovation	Related chapters in references
7	Technology, innovation and economic performance	Related chapters in references
8	Evolutionary economics and technology	Related chapters in references
9	Sectorial analyses	Related chapters in references
10	Sectorial analyses	Related chapters in references
11	Science and technology policies: Theoretical perspectives	Related chapters in references
12	Science and technology policies: Case studies	Related chapters in references
13	Science and technology policies in Turkey	Related chapters in references
14	Science and technology policies in Turkey	Related chapters in references
15	Technology and environmental issues	Related chapters in references

Program Outcomes	Course Learning Outcomes*									
	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10
PO 01	5	4								
PO 02										
PO 03	4	5								
PO 04			5	5	5					
PO 05										
PO 06										
PO 07			4	4						
PO 08		3	3							
PO 09										
PO 10	2	2	5	5	5					
PO 11										
PO 12										
PO 13					3					
PO 14										
PO 15										
PO 16										
PO 17										
PO 18										

* 1: Lowest

2: Low

3: Average

4: High

5: Highest



ECTS of the Course Based on Learning, Teaching and Evaluation Activities (Average Hours)

Activities	Number	Preparatory Work	Duration	Total Workload
Theory	14	2	3	84
Applied Course				
Homework(s) / Seminar(s)	5	2		10
Term Assignment / Project	1	10		10
Application (Laboratory, Atelier, Field, Problem Based Learning - PBL)				
Other Learning Activities				
Quizzes				
Midterm Exam(s)	1	20	1	21
Final Exam	1	30	1	31
Total Workload (Hours)				166
Rounding [Total Workload (hours) / Weekly Workload (30)] = ECTS				4