Course Syllabus

Code - Course Title	**İKT349 - Technology and the Economics of Innovation**
Course Type	V. SEMESTER
Laboratory + Practice	2+0
ECTS	**5.0**
Language of Instruction	Türkçe
Course Type	Area Elective Courses
Course Instructor(s)	PROF. DR. MUNİSE TUBA AKTAŞ

Mode of Delivery	The mode of delivery of this course is face to face
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There is no prerequisites and co-requisites
Courses Recomended	There is no recommended optimal programme component
Recommended Resources	Freeman, Chris and Soete, Luc (2003). Trans. Ergun Türkcan, Economics of Innovation, TÜBİTAK Publications Akçomak İbrahim Semih, Erdil Erkan et al. (2016), Science, Technology and Innovation; Concepts, Theories and Policy, Istanbul Bilgi University Publications, Peter, Swann, (2009). The Economics of Innovation, Edward Elgar Publishing, Inc, USA, Erkök Yılmaz, Şiir (2020). Economics of Innovation, Ankara: Efil Publishing
Work Placement	An internship is not required for this course.
Aims of the Course	It aims to provide the knowledge and skills that will enable students to analyze the micro and macro effects of technological developments and innovation activities from an economic perspective and to comprehend the role of public policies in this process.

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		What is an innovation and technology? The Relationship between Technology, Science and Economy, Historical Perspective of Innovation, Models of Innovation	
Week - 2		Explaining The Basic Concepts Related to Technology and Innovation, Measurement of Innovation and Effects of Innovation	
Week - 3		The Different Approaches in Innovation Economics: Neoclassical and The Neo-Schumpeterian (or Evolutionary) Approaches	
Week - 4		National Innovation Systems: The Role of Institutions	
Week - 5		Innovative Entrepreneurship and Markets; Innovation, Intellectuel Property Rights and Firms	
Week - 6		Technology and Economic Growth	
Week - 7		Midterm Exam	
Week - 8		Innovation and Performance of International Trade	

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 9		Development and Technology Diffussion	
Week - 10		Innovation and Evoluation of Industry	
Week - 11		Innovation and Intellectuel Property Rights	
Week - 12		Public Policy for Innovation	
Week - 13		Innovative Countries and Turkey.	
Week - 14		Final Exam	

Learning Outcomes

#	Learning Outcome
1	Explain the concepts of technology-innovation and the relationship between technology, science and economy
2	Explain the forms of innovation, models of innovation, classification of innovation and measuring innovation
3	Analyses the effects of innovation
4	Explain the different approaches in innovation economics: Neoclassical and The Neo-Schumpeterian (or Evolutionary) approaches
5	Explain national innovation systems and the role of institutions
6	Analyses the relationship between innovative entrepreneurship and markets and effect of intellectuel property rights on firms' innovation.
7	Explain the relationship between technology and economic growth
8	Evaluatethe the impact of innovationon performance of international trade
9	Explain the relationship between development and technology diffussion;
10	Explain the public policy for innovation
11	Explain the innovative counties and Turkey's innovation process

Sustainable Development Goals

✓ Health and Quality of Life ✓ Accessible and Clean Energy ✓ Decent Work and Economic Growth ✓ Industry, Innovation and Infrastructure ✓ Reducing Inequalities ✓ Responsible Production and Consumption

Course Theme

✓ Entrepreneurship ✓ Law, Ethics and Regulations ✓ Communication Technologies and the IoT ✓ Robotics, Automation and Mechatronics ✓ Sustainability and Green Energy ✓ Artificial Intelligence ✓ Innovation Skills

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Self Assessment ✓ Project ✓ Homework ✓ Presentation