Course Syllabus

Code - Course Title	**İKT646 - Technology and Innovation Economy**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**7.5**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. MUNİSE TUBA AKTAŞ

Mode of Delivery	Face-to-face-Distance Learning
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	It is recommended that the students who will take this course have taken \"Macro Economic Analysis and Micro Economic Analysis\" courses at the graduate level.
Recommended Resources	1- Chris Freeman and Luc Soete. The Economics of Innovation, 3rd edition, MIT Press, 1997.2. Anderson, E.S. “Theories of Localised resource Based Growth and Development: From Marshall to New Evolutionary Economics3. Landes, David. The Unbound Prometheus, Cambridge University Press, 1993, Introduction and conclusion sections.Antonelli, C. (2003). “Localized Technological Change”. Working Paper Series, University of Torino.4.Cornwall J. and W. Cornwall. (1994). “Growth Theory and Economic Structure”. Economics 61,242:237-251.5. Grossman, G.M. and E. Helpman (1994). “Endogenous Innovation in the Theory of Growth”. The journal of Economic Perspectives., Winter, Vol.8, No. 1: 23-44.6. Metcalfe, J.S. and L. Georghiou (1997). “Equilibrium and Evolutionary Foundations of Technology Policy”. CRIC Discussion Paper no 3, September
Work Placement	This is not appropriate for the course
Aims of the Course	To understand contemporary academic research in the economics of innovation and technology, to conduct original research in this field using relevant research methods.

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction _ The Rise of Science-Related Technology	
Week - 2		Microeconomics of Innovation: The Theory of the Firm Success and Failure in Industrial Innovation -Innovation and Firm Size	
Week - 3		Sectoral Concentration and R&D, -Analysis of the factors determining the sectoral concentration -Indices Measuring Sectoral Concentration	
Week - 4		Innovation and Firm Strategy	
Week - 5		Macro Economics of Innovation: Technology, Growth and Globalization	
Week - 6		Technology and Economic Growth	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 7		The Relationship Between Intellectual Property Rights and Innovation	
Week - 8		Innovation and International Trade Performance	
Week - 9		Development and Dissemination of Technology	
Week - 10		Technology Transfers, Financing and Related Policies	
Week - 11		Innovation and Public Policies	
Week - 12		Information Society and Employment	
Week - 13		Technology and Environmental Issues National Innovation System and Its Economic Effects	
Week - 14		Information Technologies ve Digital Economy	

Learning Outcomes

#	Learning Outcome
1	Perceive the interaction between the disciplines related to the field.
2	Evaluate the knowledge acquired in the field with a critical approach.
3	Determine learning and practical needs related with the field.
4	Possess modelling and interpret the model results.
5	Intend and conduct any kind of project and goals on issues in the field.
6	Possess the awareness of lifelong learning

Sustainable Development Goals

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

Course Theme

✓ Economics, Finance and Management ✓ 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	9.00	12	108
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	1.00	3	3
Ödevler	1.00	10	10

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Proje - Rapor - Sunum Hazırlama	5.00	1	5
Ara Sınav Hazırlığı (sınav süresi dahil)	6.00	3	18
Final Sınavı Hazırlığı (sınav süresi dahil)	10.00	4	40
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0.00	0	0
Staj Uygulaması	0.00	0	0
		Calculated ECTS	**7.5**

Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Homework ✓ Presentation