



# UNIVERSITY OF PIRAEUS

<b>FACULTY/SCHOOL</b>	<b>School of Economics, Business and International Studies</b>		
<b>DEPARTMENT</b>	<b>Department of Economics</b>		
<b>LEVEL OF STUDY</b>	<b>Postgraduate</b>		
<b>COURSE UNIT CODE</b>	-	<b>SEMESTER</b>	<b>1</b>
<b>COURSE TITLE</b>	<b>ECONOMICS OF INNOVATION</b>		
<b>WEEKLY TEACHNG HOURS</b>	<b>3</b>	<b>CREDITS (ECTS)</b>	<b>7,5</b>
<b>COURSE TYPE</b>	General Knowledge, Scientific expertise, Skills Development		
<b>PREREQUISITE COURSES</b>	Microeconomics, Macroeconomics, Economic Growth		
<b>INSTRUCTION LANGUAGE</b>	Greek	<b>ASSESSMENT LANGUAGE</b>	English
<b>OPEN TO ERASMUS</b>	Yes		

<b>LEARNING OUTCOMES</b>	This an introductory course on Economics of Innovation. During this course, students will have the opportunity to be introduced to basic aspects of innovation, how firms achieve innovation and the effects of innovation. Major part of the module is the demonstration of students' understanding of fundamental data analysis and innovation concepts and techniques in the context of a focused project.
--------------------------	---

<b>GENERAL COMPETENCES</b>	<ul style="list-style-type: none"> <li>- Group/Team work</li> <li>- Critical thinking</li> <li>- Development of free, creative and inductive thinking</li> <li>- Introduction of innovative research</li> <li>- Project planning and management</li> </ul>
----------------------------	--

<b>COURSE CONTENT</b>	<ul style="list-style-type: none"> <li>• Aspects of Innovation <ul style="list-style-type: none"> <li>○ Basic Concepts</li> <li>○ Process Innovation</li> <li>○ Product Innovation</li> <li>○ Innovative Pricing</li> <li>○ Network effects and standards</li> <li>○ Intellectual Property</li> </ul> </li> <li>• How Firms Achieve Innovation <ul style="list-style-type: none"> <li>○ The Entrepreneur and Innovation</li> <li>○ Organization for Innovation</li> <li>○ Vision and Innovation</li> <li>○ Clusters and Networks</li> </ul> </li> <li>• The Effects of Innovation <ul style="list-style-type: none"> <li>○ The Diffusion of Innovation</li> <li>○ Innovation and Trade</li> <li>○ Innovation and Competitiveness</li> <li>○ Innovation and Sustainability</li> </ul> </li> </ul>
-----------------------	--

<b>USE OF ICT IN TEACHING</b>	e-class notes, labs, econometric software
-------------------------------	---

<b>COURSE DESIGN</b>	<b>Activity/Method</b>	<b>Semester workload</b>
	Lectures	65
	Study and analysis of term-projects	58
	Exam	2
	Total	125

<b>COURSE ASSESSMENT</b>	Language of evaluation is Greek and English (if it is requested). Methods of evaluations are term-projects and final exam
--------------------------	---

<b>SUGGESTED BIBLIOGRAPHY</b>	<p><b>BOOKS:</b></p> <p>Swann P.G.M. (2016), <i>The Economics of Innovation</i>, Edward Elgar Publishing, Northampton, MA, US.</p> <p><b>DATA SOURCES:</b></p> <ul style="list-style-type: none"> <li>• World Bank Development Indicators  <a href="https://databank.worldbank.org/data/source/world-development-indicators">https://databank.worldbank.org/data/source/world-development-indicators</a>  <a href="https://data.worldbank.org/indicator/IP.PAT.RESD">https://data.worldbank.org/indicator/IP.PAT.RESD</a>  <a href="https://data.worldbank.org/indicator/SP.POP.SCIE.RD.P6">https://data.worldbank.org/indicator/SP.POP.SCIE.RD.P6</a> </li> <li>• OECD:  <a href="https://data.oecd.org/gdp/gross-domestic-product-gdp.htm">https://data.oecd.org/gdp/gross-domestic-product-gdp.htm</a> </li> </ul>
-------------------------------	---

**COURSE'S WEEKLY PLANNER**

<b>WEEK</b>	<b>MATERIAL</b>	<b>READING LIST</b>
<b>1st Lecture</b>	<b><i>"Defining &amp; Measuring Innovation"</i></b>	
	<i>Invention</i> <i>Creativity</i> <i>Research &amp; Development</i> <i>Design or Development?</i> <i>Technological Change</i>  <i>Different forms of innovation</i> <i>Protecting innovation</i> <i>Measuring innovation</i>	See Appendix of Lecture # 1
<b>2nd Lecture</b>	<b><i>"Innovation as Competitive Strategy"</i></b>	
	<i>Cost Conditions &amp; Process Innovation – 4 Examples:</i> <i>Reduced FC</i> <i>Reduced Marginal Cost</i> <i>Capital Intensive</i> <i>Flexible Manufacturing</i>  <i>Product Innovation &amp; Competition</i> <i>Product characteristics and differentiation</i> <i>Product Maps and Choice</i> <i>Product Proliferation</i> <i>Innovative Pricing</i>	See Appendix of Lecture # 2
<b>3rd Lecture</b>	<b><i>"Network Effects and Clusters"</i></b>	
	<i>Networks</i>  <i>Clusters</i>	See Appendix of Lecture # 3
<b>4th Lecture</b>	<b><i>"Intellectual Property (IP)"</i></b>	
	Institutional Methods  Patents, Trademarks, Copyrights, Registered Design  Non-Institutional Methods Trade Secrecy Confidentiality (Non-Disclosure) Agreements Lead-Time advantage Complexity Open Source	See Appendix of Lecture # 4
<b>5th Lecture</b>	<b><i>"Ecosystems"</i></b>	
	Discussion	
<b>Final Exam</b>		