

SYLLABUS

Name of the course:	Economics of Knowledge and Creativity			
Teacher:	Aldo Geuna			
University / organisation:	UNITO			
Language of teaching:	English			
ECTS:	6			
Semester (S1, S2, S3 or S4):	<input checked="" type="checkbox"/> S1	<input type="checkbox"/> S2	<input type="checkbox"/> S3	<input type="checkbox"/> S4
Teaching method(s):	<input checked="" type="checkbox"/> Lecture courses		<input type="checkbox"/> Flipped classroom	
	Other: _____			
Type(s) of evaluation:	<input checked="" type="checkbox"/> Sitting exam		<input checked="" type="checkbox"/> Written report	
	<input type="checkbox"/> Oral defence		<input checked="" type="checkbox"/> Group project	
	Other / comments: _____			
Expected deadline(s) for the evaluation(s)	January-February 2021			
Expected date of final results:	January-February 2021			
Summary of the content:	<p>The course aims to develop a critical knowledge of the fundamentals of the economics and policy of knowledge production and distribution with particular emphasis on university research. The course will introduce the student to the principal institutions and policies in the area of research and innovation in the G7 countries and other BRIC countries (depending on the interests of the students). Particular attention will be devoted to the comparative analysis.</p> <p>The course is structured into three main modules. The first presents a brief introduction to the economics of innovation paying particular attention to the concepts of knowledge and information (this topic will be develop in detail in the second semester course of economics of innovation). The second module focuses on the analysis of scientific production and the academic labor market paying particular attention to international mobility. The interaction between science and industrial development and in particular university-industry relationships, academic patenting and other channels of knowledge transfer is examined in the third module. Given the increasing importance of evidence based policy, one or two classes of the course will be devoted the understanding and use of Science and Technology (S&T) Indicators for economic analysis and policy making.</p>			

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The course offers the opportunity to follow a series of seminars on the economics of innovation held at the Collegio Carlo Alberto in Piazza Arbarello 8. Attendance of the seminars is very strongly suggested.

The course provides detailed knowledge on the development and implementation of science and technology policies. Students will acquire the needed theoretical and empirical knowledge to critically evaluate market failure situations that would justify the development specific policies. The analysis of the rationale behind policy action and the problems associated to the development and implementation of specific policies will help the students to develop a critical knowledge of the difficulties inherent to the development of science and technology policy.

Students (groups of two/three students can be formed) will be asked to produce a term paper enabling them to improve their reporting skills. The text should be placed at the cross border between academic research and policy report. Each student will be asked to present the structure and summary results of her/his work during the last classes.

Indicative list of lectures:

Class	Date	Title
1.1		Introduction Economics of Knowledge
1.2		Economics of Knowledge
2.1		The Production and Organization of Science Academic Labor Market
2.2		Mobility and productivity
3.1		International mobility and productivity
3.2		Patenting: economic justification and critical aspects
4.1		ST&I Indicators 1
4.2		ST&I Indicators 2 Research Skills / Term paper /
5.1		What you should know Science Technology Relationships The empirical analysis of university-industry collaborations
5.2		Knowledge Transfer and Academic patenting in the US and Europe
6.1		Students presentations (1)
6.2		Students presentations (2) Conclusions and Q&A

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Short bibliography:

A. Geuna ed. (2015), *Global Mobility of Research Scientists. The Economics of Who Goes Where*. Academic Press, 2015

A. Geuna and F. Rossi (2015), *The University and the Economy: Pathways to growth and development*, Cheltenham: Edward Elgar, [translation with three new chapters of the 2013 book in Italian].

A. Geuna, (1999), *The Economics of Knowledge Production: Funding and the Structure of University Research*, Cheltenham: Edward Elgar. (Freely available at my home page: <http://www.personalweb.unito.it/aldo.geuna/>)

D. Foray (2004), *The Economics of Knowledge*, MIT press.

Bronwyn H. Hall, Nathan Rosenberg (eds.) (2010) *Handbook of the economics of innovation*. MIT Press.