

COURSE: Economics of Innovation (SECS-P/02 – CFU: 9)

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1. KNOWLEDGE AND SKILLS TO BE ACHIEVED DURING THE COURSE

This course will focus thoroughly on the central aspects of the economics of innovation for understanding those factors that influence the innovation patterns and how policies can contribute to the processes of social and economic change.

Students have the opportunity to acquire:

1. **Knowledge and understanding.** The students will become familiar with classic as well as contemporary views on the economics of innovation, with a particular focus on themes on the frontier of research.
2. **applying knowledge and understanding.** The course covers the main issues related to technological change and technical progress: definitions, sources of innovation, indicators for measuring innovation, methodological issues. Moreover, it addresses some specific issues closely related to the economics of innovation: entrepreneurship, innovative start-ups, technology transfer, economic effects of innovations, and measurements.
3. **making judgements.** The autonomy of judgment is developed through a critical study of the scientific literature on the topic. This ability will be particularly refined through interactive teaching, namely, the course will be organized as a combination of lectures, reading and writing of exam essay and group discussions.
4. **communication skills.** The student will be able to explain clearly and comprehensively the issues addressed using the acquired knowledge in an appropriate manner. In particular, he/she will be able to deal with everyday working issues with appropriate terminology that will allow him to show communication and interaction skills, also useful for working relationships.
5. **learning skills.** The student will develop a critical ability to understand the main results produced by modern economic literature addressed to technological innovations having acquired the necessary tools to interpret policy choices.

2. PROGRAM/ CONTENTS

The course aims at: i) providing a solid background in economics of innovation, and ii) highlighting the main topics in the literature of economics of innovation.

Contents:

Part I: Basics in the Economics of Innovation

Introduction to the course

What is economics of innovation about?

Innovation in the history of economic thought

Part II: Aspects of Innovation

Fundamental concepts in innovations

Process innovation

Product innovation

Innovative pricing

Network effects and standards

Intellectual property

Part III: How firms achieve innovations

Invention and creativity
The entrepreneur and innovation
Organization for innovation
Vision and innovations
Clusters and networks
Division of labour

Part IV: The innovation and the consumer

The passive consumer and the active consumer
The diffusion of innovation

Part V: The effect of innovation

Innovation and trade
Innovation and market structure
Innovation and wealth creation
Innovation and competitiveness
Innovation and sustainability
Innovation and employment

Part VI: Innovation and government

Market failure
Innovation and policy.

3. TEXT BOOKS

Textbook: Swann, G. M. P. (2009). The economics of innovation: an introduction. Cheltenham: Edward Elgar. Price **£ 24.87**

Scientific literature: Articles, essays and reports concerned with the above topics will be provided. The readings are not compulsory, but are recommended to improve your preparation and extend of your knowledge of the topics.

4. EDUCATIONAL METHOD AND TOOLS

The course will require a total of 225 (i.e. 9 * 25) working hours organized in the following way:

- 171 hours for individual study.
- 54 hours of teaching.

The teaching is based upon:

- 23 hours of asynchronous training (i.e. classical web-based teaching)
- 31 hours of synchronous training (i.e. interactive teaching)

Interactive teaching (e-tivity) is all about instructing the students in a way they are actively involved with their own learning process by means of:

- further explanations addressed by the teacher/tutor to the entire class (or a subgroup), typically in the form of demonstrations (e.g. how to solve a problem, exercise and similar) or case studies;
- brief interventions carried out by the students (for example in discussion or collaboration environments: web forums, blogs, etc.);
- structured e-tivity (individual or collaborative), typically in the form of reports, exercises, case studies, problem solving, projects, carried out by students, with relative feedback;
- typical forms of formative evaluation, with the character of questionnaires or tests in progress.

For Economics of Innovation course, the e-tivity will be organized as follow:

- a forum “question/answer” on two topics addressed during the course followed by a discussion Webinar. Students are asked to briefly illustrate (10 lines) the topics assigned. During the webinars the above topics will be discussed among students, teacher and tutor.
- essay test. Please contact the teacher for the assignment of an essay question.

The factual participation to these interactive activities will be evaluated and it will integrate the final mark up to 5 points.

5. SELF-ASSESSMENT PROCEDURES

A self-assessment test is published on the course web page (didactic path) to optimize the preparation of the exam. This test will allow students to ascertain the degree and the actual understanding of the acquired knowledge.

6. EVALUATION METHODS (FINAL EXAM)

The exam evaluation will be carried out by an oral examination. An adequate knowledge of the topics included in the self-assessment test is a valid basis for evaluating yours preparation. Participation in the interactive activities (possible reading and writing of essays, group discussions and webinars) will be taken into consideration during the exam session.

7. AREAS OF APPLICATION OF ACQUIRED KNOWLEDGE

The course aims to respond to the emerging training needs in the sectors driven innovation with particular reference to managerial roles.