

<b>POLI</b> ESCOLA SUPERIOR TECNOLOGIA GESTÃO <b>TÉCNICO</b> <b>GUARDA</b>	<b>SUBJECT DESCRIPTION</b>	<b>MODELO</b> PED.013.03
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Course	<b>Master Management</b>					
Subject	<b>Innovation and Competitiveness</b>					
Academic year	2023/24	Curricular year	3rd	Study period	1st semester	
Type of subject	Compulsory	Student workload (H)	Total: 126	Contact: 60	ECTS	4,5
Professor(s)	<b>PhD Maria Manuela Santos Natário</b>					
<input checked="" type="checkbox"/> Area/Group Coordinator <input type="checkbox"/> Head of Department	(select)		<b>PhD Maria Manuela Santos Natário</b>			

## PLANNED SUBJECT DESCRIPTION

### 1. LEARNING OBJECTIVES

*The aim of this curricular unit is that the student will acquire skills and competencies related to theoretical aspects, as well as critical analysis competencies applied to the main concepts related with the economic science and the economic problem under analysis.*

*The students should also understand the innovation economic problem in different contexts and evaluate the several public interventions in the innovation process e competitiveness.*

*The student should understand the magnitude and dimension of innovation and competitiveness in a global context of countries, businesses and management.*

*The student should develop competencies to stimulate innovation territorial systems and the creation of an innovative environment.*

*The student should develop competencies to stimulate countries and organisations' success and competitiveness.*

*The student should develop analysis and argument skills to justify proposals and strategic choices in the context of the innovation economy and competitiveness.*

### 2. PROGRAMME

#### 1. Introduction to the Innovation Economy (Economy of Innovation)

1.1. The role of innovation in the economies

1.2. Concepts, Types and Models of innovation

1.3. Innovation and knowledge diffusion

#### 2. Innovation Indicators

#### 3. The Innovation Process and its Determinants

3.1. Determinants of innovation

3.2. Goals, sources and barriers

3.3. Sectorial Innovation Paterns

#### 4. Innovation Territorial Processes and Innovation Politics

4.1. The approach of the innovative environments

4.2. The approach of the systems of innovation

4.3. The Portuguese National System of Innovation

4.4. The Triple Helix Model

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#### 4.5. Network Externalities, Increasing-scale Economies and Agglomeration Economies

### 5. Innovation and competitiveness

#### 5.1. Concepts and Indicators

#### 5.2. The territorial/firm perspective

#### 5.3. Innovation, Competitiveness and Development

### 3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

This curricular unit, developed through the programme's topics, aims to foster the overall education of the student as a person and as a future master in the management area. It aims to give the student the theoretical background, essential to understand the innovation and competitiveness processes and operational skills that will be useful to deal in a more consequent way with the innovation processes in the organisational and territorial contexts.

The contents of the Programme will allow the students to understand the innovation phenomenon, making them aware of the need to stimulate the processes of innovation in the firm/territorial context and they will allow the students to question the factors or determinants that should be activated to stimulate the development of innovation and increase competitiveness.

At the end of this curricular unit, the student should be able to participate autonomously and develop the process of innovation in the organisations/territorials where he/she is (or will be) integrated.

### 4. MAIN BIBLIOGRAPHY

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AL-Hakin, L.; Jin, C.(2012) Innovation in Business and Entreprises: Technologies and Frameworks, Business Refence Source, New York.

Braczyk, H-J. *et al* (1998) Regional Innovation System. Ucl Press, London.

Crevoisier, O.; Camagni, R.(2000) Les Milieux Urbains: Innovation, Systèmes de Production et Ancrage, IRER, EDES, Neuchâtel.

Edquist, C.(1997) Systems of Innovation: Technologies, Institutions and Organizations, Pinter, London and Washington.

Freeman, C. (2008) Systems of innovation: selected essays in evolutionary economics Edward Elgar  
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Lundvall, B.A (2010) National Systems of Innovation: Toward a Theory of Innovation and Interactive Learning, Athem Press.

Pelaez, V., Szmrecsányi, T. (2006) Economia da Inovação Tecnológica, Economia e Planeamento.

Porter, M. (1998) The Competitive Advantage of Nations, Macmillan Business, 2ª Edition, London.

#### Complementar:

1. Acs, Z., Desai, S., and J. Hessels (2008). Entrepreneurship, economic development and institutions, *Small Business Economics* 31: 219–34.
2. Alberto, D. and Ferreira, J. (2010), “Desenvolvimento e Competitividade Regionais: Aplicação do modelo Triple Helix à NUT III Beira Interior Sul”; paper presented at 16º Congresso da APDR, 8 a 10 de Julho de 2010, Universidade da Madeira, Funchal available at: [www.apdr.pt](http://www.apdr.pt) (accessed 20 February 2010).

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3. Arbuthnott A. and von Friedrichs Y. (2013). "Entrepreneurial renewal in a peripheral region: the case of a winter automotive-testing cluster in Sweden", *Entrepreneurship & Regional Development*, 25 (5-6): 371-403 (<http://dx.doi.org/10.1080/08985626.2012.748095>).
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## 5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

**Teaching Methodologies:** lecture; interaction lesson; debate; presentation/interaction using audiovisual instruments; case study.

### **Evaluation:**

Final Classification= 80% Individual Test or Final Work + 15% Continuous Evaluation+5% Aparentation

The individual test (Frequency/Exam) is made without consultation. To be Approved in this curricular unit, the student must have a minimum classification of 8 values.

Continuous Evaluation: Presentation and discussion of several themes and practical exercises.

Final work: research on a topic proposed by the professor.

Note1: Not doing practical exercises will imply 100% ponderation in the exam

Nota2: To obtain Approval, the final work must not have more than 30% of plagiarism.

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### 6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

*To achieve the proposed goals, the methodology used in this unit is based on theoretical and practical formation principles. The pedagogic methods and technics applied along the sessions are: (a) affirmative methods with exposition, interactive and demonstrative lessons; (b) debate and case studies methods, being the professor responsible to reinforce the learning process and to coordinate practical tasks using specific technologies and software; (c) Work group/ individual, work in the field and individual research oriented by the professor to the final work..*

### 7. ATTENDANCE

NA

### 8. CONTACTS AND OFFICE HOURS

**Name:** Maria Manuela Santos Natário  
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**Phone number** 271220111 (line: 1262)  
**Office:** 62 ESTG  
**Office hours:** Thursday: 14h30-18h30  
**Area Coordinator:** Maria Manuela Santos Natário

### 9. OTHERS

NA

### DATE

10 de outubro de 2023

### SIGNATURES

Professor

\_\_\_\_\_

(signature)

Area/Group Coordinator

\_\_\_\_\_

(signature)