**UNIVERSITAT POLITÈCNICA DE CATALUNYA**

**ESCOLA UNIVERSITÀRIA D'ENGINYERIA TÈCNICA INDUSTRIAL DE BARCELONA**

**Degree in ENGINEERING. (All degrees)**

Escola Universitària d'Enginyeria Tècnica Industrial de Barcelona
Consorci Escola Industrial de Barcelona
UNIVERSITAT POLITÈCNICA DE CATALUNYA

**Guide of the course *(English)***

ECTS

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|---|---|---|---|---|---|
| **Subject:** | Innovation Management (English) | | | | |
| **Acronym:** | **IME** | **Type:** | | **Optional** | |
| **Code:** | **820001** | **Semester:** | | **1,2** | |
| **Year:** | **2010** | **Level:** | | **1** | |
| **Credits:** | **Total Credits ECTS:** | **6** | **Total Hours:** | | **8** |
| | In Classroom Credits (Theory): | 0,75 | In Classroom hours (Theory):: | | 1 |
| | In Classroom Credits (Problems):: | 1,5 | In Classroom hours (Problems):::: | | 2 |
| | Laboratory Credits::: | | Laboratory hours: | | |
| | Guided Activities: | 1,5 | Guided Activities hours: | | 2 |
| | Out of the classroom Credits: | 2,25 | Out of the classroom hours: | | 3 |
| **Coordinator:** | Joan Martínez Sánchez | | | | |
| **Professorate:** | Joan Martínez Sánchez | | | | |
| **Consulting Timetable:** | Office 1D03 – 1st floor of EUETIB- Department of Business Administration. (Organització d'Empreses). Timetable published at the EUETIB's intranet (ATENEA) | | | | |
| **Prerequisites:** | Students must have a medium or upper lever in both oral and reading | | | | |
| **Other requisites** | None | | | | |
| **General Objectives:** | The main objective of this course is to introduce engineering students in technology management and innovation. In particular, students should know when completing the course, how to use technology to get new or improved products and more competitive companies. | | | | |
| **Specifics Objectives by topic:** | **Chapter 1 –** Introduction to Innovation Concepts and innovation models.<br><br>**Chapter 2 –** Giving a general knowledge of Innovation Management and innovation assessment tools.<br><br>**Chapter 3 –** Getting a conceptual frame on how to build an innovative organization and planning an innovation strategy to make a company more competitive<br><br>**Chapter 4 -** Knowing the importance of collaboration to innovate and innovation networks and introduce the frame of open innovation.<br><br>**Chapter 6 –** Introducing concepts and main tools of international trade, import and export, and. markets<br><br>**Chapter 7 –** Knowing the industrial property and innovation protection options available and how to manage it.<br><br>**Chapter 8 – Knowing t**he different Financing of Innovation options offered by private or public institutions. | | | | |

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| **Cross competences:** | Students following this course should improve their English, oral and written competencies, team work skills and entrepreneurship attitudes. |

**Topics of the course:**

**Chapter 1 -** Innovation – Concepts and innovation models.

**Chapter 2 -** Innovation Management and innovation assessment tools.

**Chapter 3 -** Building the innovative organization and innovation strategy.

**Chapter 4 -** Innovation networks and open innovation.

**Chapter 6 -** International Markets and trade.

**Chapter 7 –** Industrial property and innovation protection.

**Chapter 8 –** The Financing of Innovation.

**Laboratory:**

This course has not laboratory credits

**Guided Activities:**

1. Individual exercises.
2. Group project using PBL techniques.
3. Self-learning of the course contents.

**Students Weekly work expressed in hours:**

| activity Type / Weekly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theory | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | 15 |
| Practice | | | | | | | | | | | | | | | | | | | | | |
| Problems | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | 30 |
| Out of the classroom | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | | 45 |
| Practice report delivery | | | | | | | | | | | | | | | | | | | | | |
| Oral/written exams | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | 30 |
| Other activities | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | 15 |
| **TOTAL** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | **9** | | | | | | 135 |

**Teaching/Learning method:**

The work in the classroom will alternate the professor presentation of the main concepts with the discussion of innovation cases or conferences offered by professionals from companies and institutions with innovation management

responsibilities. The topics will be presented in a very practical way and students will work in collaborative teams.

**Main bibliographic resources.**


1. Tidd, Joe / Bessant, John, Managing Innovation. Integrating Technological, Market and Organizational Change. Wiley & Sons
2. Eric von Hippel. Democratizing Innovation. The MIT Press. Cambridge, Massachusetts. London, England. 2005


**Complementary bibliographic resources:**


1. Managing open innovation. - Present Findings and Future Directions. Tobias Fredberg, Maria Elmquist and Sussanne Ollila. Chalmers university of thecnolgy. Vinnova. 2008.
2. Guide for managing Innovation. Part 1: Diagnosis. Cidem, Generalitat de Catalunya. 2002
3. Guides for managing innovation. Part 2: Project management. Cidem, Generalitat de Catalunya 2003.
4. Competitive Regional Clusters. OECD. 2007


Websites

http://cordis.europa.eu/home_en.html
http://www.acc10.cat/en/
http://www.managing-innovation.com/
http://web.mit.edu/evhippel/www/books.htm

**Assessment and qualification:**

The students will be evaluated on the bases of continuous evaluation. Each student will have 10 marks: a) 5 of the marks will correspond to each of the 5 exercises or reports based on the bibliography or conferences that they will have to deliver (one report for team); b) 4 of the marks will come from each of the 4 test that they will do and c) a last mark will correspond to each student participation in the classroom. The final mark will be the average of these 10 marks, accounting each mark as a 10% of the general qualification.