



IDENTIFYING DATA

Knowledge management and technological innovation

| | | | | |
|---------------------|---|----------|------|------------|
| Subject | Knowledge management and technological innovation | | | |
| Code | V03G020V01925 | | | |
| Study programme | (*)Grao en Administración e Dirección de Empresas | | | |
| Descriptors | ECTS Credits | Choose | Year | Quadmester |
| | 6 | Optional | 4th | 1st |
| Teaching language | Galician English | | | |
| Department | | | | |
| Coordinator | Vázquez Vicente, Xosé Henrique | | | |
| Lecturers | García Vázquez, José Manuel Vázquez Vicente, Xosé Henrique | | | |
| E-mail | xhvazquez@gmail.com | | | |
| Web | http://webs.uvigo.es/xhvv | | | |
| General description | The course highlights the challenges posed by the knowledge economy, justifies the need to innovate in this context, and deepens into the tools available to sistematize R&D and innovation within organizations. Although we will mainly focus in private firms, the course will show that the management of knowledge and innovation finds a wide field of application beyond the business arena. The rationale of the course will thus play an important role in the dynamization of change in any type of organization; from an NGO or a trade union, for instance, to the very same public administration. | | | |

Competencies

| | | | | |
|------|--|--|--|--|
| Code | | | | |
| A2 | Students need to be able to apply the knowledge acquired to their work or vocation in a professional manner, and should have the skills normally demonstrated through the ability to develop and defends points of view and to solve problems related to their field of study. | | | |
| A3 | Students should be able to collect and interpret relevant data (usually within their field of study) in order to make judgements that include a reflection on the relevant social, scientific or ethical issues. | | | |
| A4 | Students should be able to transmit information, ideas, problems and solutions to both specialised and non-specialised audiences. | | | |
| B1 | Ability to analyse and synthesise | | | |
| B2 | Critical and self-critical thinking | | | |
| C1 | Acquire and understand knowledge regarding: the relationships between the different subsystems that make up the business system | | | |
| C3 | Acquire and understand knowledge regarding: Internal aspects, functions and processes of organisations including their nature, structure, direction, operation and management | | | |
| D2 | Capacity for leadership, including empathy with others | | | |

Learning outcomes

| Expected results from this subject | Training and Learning Results | | | |
|--|-------------------------------|----------|----------|----|
| Understand in that it consists the economy of the knowledge and the paper that in her plays the management of the innovation | A3 | B1 B2 | C1 C3 | |
| Capacity of analysis of the main strengths that move the ecosystem of innovation | A2 | B1 B2 | C1 C3 | |
| Capacity of analysis of the internal processes of the company that condition his potential of innovation | A4 | B2 | C1 C3 | D2 |
| Creative capacity to distinguish new projects of innovation, evaluate them with rigour, and **implementalos | A2 A3 | B1 | C1 | D2 |

| Contents | |
|--|--|
| Topic | |
| 1.- Why innovation management? From an industrial to a knowledge economy. | The world economy. The rationale of growth and convergence. The new technological system: microelectronics and biotechnology. Knowledge economy: more than bytes. The firm in a new context: the innovation plan. |
| 2.- Technological change and National Systems of Innovation. | Technology and innovation: definitions and typologies. The configuration of National Systems of Innovation. The system Science-Technology-Industry: the role of universities. |
| 3.- How to protect intellectual property rights (IPRs). | What are IPRs. Patents. Utility models. Industrial models and draws. Know-how. Brands and other symbols. |
| 4.- The elaboration of a diagnosis: from environmental insights to new ideas for the market. | Competitive intelligence. Technological prospection. Technological audit. |
| 5.- The importance of designing a strategy to develop a project portfolio. | Strategic coherence. Innovation strategies. Technological strategies. What comes first? |
| 6.- How to implement a project? Organizational structure, control and leadership. | Organizational structures to stimulate change and innovation. Coordination mechanisms to innovate. The technological perspective of control systems and incentives. Participation systems for the workforce. The flow of change: training, communication and leadership. |

| Planning | | | |
|------------------------------------|-------------|-----------------------------|-------------|
| | Class hours | Hours outside the classroom | Total hours |
| Introductory activities | 1 | 0 | 1 |
| Master Session | 29 | 30 | 59 |
| Troubleshooting and / or exercises | 10 | 10 | 20 |
| Tutored works | 10 | 20 | 30 |
| Others | 0 | 10 | 10 |
| Multiple choice tests | 2 | 28 | 30 |

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

| Methodologies | |
|------------------------------------|--|
| | Description |
| Introductory activities | Presentation of contents and goals. Teaching methodology and evaluation systems. |
| Master Session | Presentation of the theoretical basis and guidance on program contents. Before lectures, students should read and work on the material prepared for each session. |
| Troubleshooting and / or exercises | Each of these sessions consist of an activity to apply the knowledge developed in master sessions. |
| Tutored works | Students will work cooperatively in small groups in order to carry out (1) an analysis of a particular innovation topic; (2) develop simulations of tools and techniques that were studied in the theoretical lectures, and (3) elaborate an Innovation Plan for any business or industry. |
| Others | Analysis and presentations from readings and complementary exercises. |

| Personalized attention | |
|------------------------------------|-------------|
| Methodologies | Description |
| Troubleshooting and / or exercises | |
| Tutored works | |

| Assessment | | | | | | | |
|-----------------------|---|---------------|-------------------------------|----|----|----|--|
| | Description | Qualification | Training and Learning Results | | | | |
| Tutored works | There are three types of tutored works: (1) Analysis and presentations of readings; (2) simulations leaded by the teacher; and (3) an Innovation Plan. The Innovation Plan follows a model that is available in FAITIC. The assesment of these Plans will be based on its formal presentation, its analytical quality, and its public presentation. | 40 | A2 | B1 | C1 | D2 | |
| | | | A3 | B2 | C3 | | |
| | | | A4 | | | | |
| Others | Proactive attitude throughout the theoretical and practical lectures, complementary readings or oral presentations. | 10 | A4 | B1 | | D2 | |
| | | | | B2 | | | |
| Multiple choice tests | The exam will consist of 20 test questions with 4 possible answers each. One correct answer adds one point; one incorrect answer subtracts 0,33. This test-type exam may be substituted by short questions that students must deal with extensively in extraordinary sessions. | 50 | A3 | B1 | C1 | | |
| | | | | B2 | C3 | | |

| Other comments on the Evaluation |
|---|
|---|

To approve the subject is necessary to approve the test and the work of independent way. It IS necessary to obtain a 50% of the note in the work, therefore, as well as a 50% of the note in the proof type test. These are the minima to approve the subject.

On the other hand, the punctuation by the participation and realization of all the tasks defined keeps in the announcements of the academic course and no will save for successive courses.

Any student that take part in 15% of the proofs of evaluation of the plan will not be able to figure in the final qualifications how "no presented".

Calendar of available examinations in: <http://fccee.uvigo.es/organizacion-@docente.html>

Sources of information

Basic Bibliography

Complementary Bibliography

Tidd, Joe e Bessant, John, **Managing Innovation: Integrating technological, market and organizational change**, Wiley,

Tidd, Joe e Bessant, John, **Managing Innovation: Integrating technological, market and organizational change**, Wiley,

Fernández Sánchez, Esteban, **Estrategia de innovación**, Thomson,

Recommendations

Subjects that continue the syllabus

Investment decisions/V03G020V01402

Financing decisions/V03G020V01501

Subjects that are recommended to be taken simultaneously

Commercial Research/V03G020V01701

Subjects that it is recommended to have taken before

History: Economic history/V03G020V01103

Operations management/V03G020V01302

Accounting analysis/V03G020V01601