220564 - Technical Entrepreneurship

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 732 - OE - Department of Management
Academic year: 2018
Degree: MASTER'S DEGREE IN MANAGEMENT ENGINEERING (Syllabus 2012). (Teaching unit Compulsory)
ECTS credits: 5

Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: MANEL RAJADELL CARRERAS

Degree competences to which the subject contributes

Specific:
1. Apply theories and inherent principles in the general direction of an organization with the aim of analyzing uncertainty complex situations and make decisions using engineering tools.
2. Identify, analyze, diagnose, design and implement solutions to complex socio-technical systems.
3. To analyze the risks and consequences of proposed solutions in the various organizational sub-systems and their social and environmental contexts.
4. Develop a business plan in a new context.

General:
5. Ability to integrate knowledge and formulate judgments with the aim of making decisions based on information that, with incomplete or limited include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.
6. Ability to effectively communicate their findings, knowledge and concluding reasons to skilled and unskilled audiences, clearly and unambiguously.
7. Ability to operate and lead multidisciplinary and multicultural groups, with negotiation skills, group work, relationships in an international setting, and conflict resolution.
8. Ability to understand the impact of engineering solutions in a global and social context.
The aim of the course is to develop a business plan in order to create a business. The course uses the knowledge of other subjects in the area of finance, marketing or human resources. Students have to create their business plan from their own idea and following a specific methodology. This course is designed to awaken a spirit of creativity and active in front of business opportunities. To this end, part of an initial reflection: "good ideas generate good business and good business needs a good business plan. However, a good business plan can not turn a bad idea into a good business."

**Teaching methodology**

The course is divided into three parts:

- Theory classes
- Practical classes
- Self-study for doing exercises and activities.

In the theory classes, teachers will introduce the theoretical basis of the concepts, methods and results and illustrate them with examples appropriate to facilitate their understanding.

In the practical classes (in the classroom), teachers guide students in applying theoretical concepts to solve problems, always using critical reasoning. We propose that students solve exercises in and outside the classroom, to promote contact and use the basic tools needed to solve problems.

Students, independently, need to work on the materials provided by teachers and the outcomes of the sessions of exercises/problems, in order to fix and assimilate the concepts.

The teachers provide the curriculum and monitoring of activities (by ATENEA).

**Learning objectives of the subject**

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**Study load**

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Hours large group: 8h</th>
<th>6.40%</th>
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<tbody>
<tr>
<td></td>
<td>Hours small group: 15h</td>
<td>12.00%</td>
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<tr>
<td></td>
<td>Guided activities: 22h</td>
<td>17.60%</td>
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<tr>
<td></td>
<td>Self study: 80h</td>
<td>64.00%</td>
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## Content

<table>
<thead>
<tr>
<th>Module 1: General Definitions</th>
<th>Learning time: 15h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 1h</td>
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<tr>
<td></td>
<td>Laboratory classes: 1h</td>
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<tr>
<td></td>
<td>Guided activities: 3h</td>
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<tr>
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<td>Self study : 10h</td>
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**Description:**
- Introduction: enterprise and entrepreneur. Concept of organization. Mission and objectives of the organization.

<table>
<thead>
<tr>
<th>Module 2: Business Idea and Opportunity</th>
<th>Learning time: 16h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 1h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 2h</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 3h</td>
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<td>Self study : 10h</td>
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**Description:**

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<tr>
<th>Module 3: Long-term decisions</th>
<th>Learning time: 23h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 1h</td>
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<tr>
<td></td>
<td>Laboratory classes: 3h</td>
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<tr>
<td></td>
<td>Guided activities: 4h</td>
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<tr>
<td></td>
<td>Self study : 15h</td>
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**Description:**
### Module 4: Marketing Plan

**Learning time:** 24h  
- Theory classes: 2h  
- Laboratory classes: 3h  
- Guided activities: 4h  
- Self study: 15h  

**Description:**  

### Module 5: Human Resources Plan

**Learning time:** 24h  
- Theory classes: 2h  
- Laboratory classes: 3h  
- Guided activities: 4h  
- Self study: 15h  

**Description:**  

### Module 6: Economic and Financial Plan. Contingency Plan

**Learning time:** 23h  
- Theory classes: 1h  
- Laboratory classes: 3h  
- Guided activities: 4h  
- Self study: 15h  

**Description:**  
Financial business plan.  
Contingency Plan.
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**Qualification system**

The final grade depends on the following acts of evaluation

- Exam, weight: 50%
- Test, weight: 20%
- Project, weight: 30%

Any student that cannot attend to the exam or test, or wants to improve his/her grade will have an opportunity to do it in a final exam.

**Bibliography**

**Basic:**


**Others resources:**

- Apuntes

Los apuntes de la asignatura estarán disponibles en Atenea. Para la asistencia a clase es absolutamente recomendable disponer de los apuntes correspondientes a los temas que se expongan en las sesiones teóricas. El material docente está compuesto por:

- Apuntes en formato libro de alguno de los módulos del curso: ejemplos prácticos, formularios y cuestiones teóricas.
- Apuntes en formato diapositivas Power Point (las que se utilizan en clase).
- Fotocopias que se reparten en clase a los asistentes.

**Web:**

www.youtube.com/user/manelrajadell

En las sesiones de clase se indicarán los videos correspondientes a la asignatura de Creación de Empresas