300014 - ETS - Business Management

Coordinating unit: 300 - EETAC - Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit: 744 - ENTEL - Department of Network Engineering
Academic year: 2016
Degree: BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Degree competences to which the subject contributes

Specific:
1. CE 5 TELECOM. Students will acquire an understanding of companies and their institutional and legal framework and of business administration and management. (CIN/352/2009, BOE 20.2.2009)

General:
7. PROJECT MANAGEMENT - Level 1: To know project management tools carrying out the different phases of the project established by the professor

Transversal:
2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.
3. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.
4. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world’s situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.
5. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.
6. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.

Teaching methodology

Students will develop a business plan linked to the telecommunications industry. The subject introduces students to the challenge of creating a company. The methodology used is known as PBL, Project-Based Learning. Through the proposed project students will know the basic elements involved in the creation of a company and its external constraints.

This methodology will involve teamwork, autonomous learning and individual responsibility to the group. The faculty will guide and provide the tools to enable students to apply the knowledge of the acquired knowledge autonomously. The oral presentations of intermittent activities will allow the analysis and evaluation of the work done by the groups. The Business Plan document will be the evidence of the learning achieved and will allow the evaluation of the final work.
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Learning objectives of the subject

On completing the Management, Telecommunications and Sustainability course, students will be able to:
- Understand the concepts behind a business plan.
- Interpret basic business information.
- Understand the decision-making process in companies.
- Understand the elements involved in economic activity and how they operate as a system.
- Identify the regulatory aspects of business activities.
- Understand the regulation of telecommunications markets.
- Write an informative article following a set of communication guidelines.
- Give a spoken presentation following a set of communication guidelines.
- Identify the documentary sources that are most relevant to a given objective.
- Effectively use audiovisual resources.
- Understand complexity, global affairs, the welfare state and globalisation.
- Understand and be able to apply the concept of sustainability.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 28h</th>
<th>18.67%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group: 38h</td>
<td>25.33%</td>
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<tr>
<td></td>
<td>Hours small group: 0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Guided activities: 0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Self study: 84h</td>
<td>56.00%</td>
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**Business Studies**

**Learning time:** 121h 35m
- Theory classes: 23h 50m
- Practical classes: 29h 40m
- Self study: 68h 05m

### Description:
1. **THE TELECOMMUNICATIONS MARKET**

2. **BUSINESS**

3. **MARKETING**

4. **BUSINESS START-UPS**

5. **TELECOM OPERATORS**
   The main telecom operators in Spain. Analysis of their market positioning. Analysis of their financial structure, results, and share values. Alternative operators: strategies, results, and outlooks.

**Related activities:**
- Read documentation provided
- Find reliable sources of information relevant
- Canvas develop a business idea chosen
- Analyze the market using Porter's 5 Forces
- Target customers.
- Positioning the company.
- Define strategies and design a marketing plan.
- Indicate the process and calculate the sales forecast.
- Designing the organizational structure of the company
- Prepare an initial balance
- Prepare a financing plan
- Prepare an income statement
- Analyze the profitability of the company in the first three years.

**Specific objectives:**
### Sustainability

**Learning time:** 28h 25m  
Theory classes: 4h 10m  
Practical classes: 8h 20m  
Self study: 15h 55m

**Description:**
An introduction to the concepts and tools for understanding and applying sustainability.

1. Global situation and causes of non-sustainability  
2. Sustainable development  
3. Systemic complexity  
4. Globalisation and politics  
5. Values and development  
6. Technological and administrative tools

**Related activities:**
- Role-play  
- Video  
- Tests  
- Simulation of Complex Systems  
- Cooperation and Defection Game

Identify reliable sources of information  
Understand the elements of a Canvas / Lean Canvas  
Understanding the structure of a Business Plan  
Learn the basic principles of accounting  
Analyze the viability and profitability of a business idea  
Develop business idea  
Write a Business Plan  
Learn the keys to good oral and apply them to presentations  
Get the keys to writing readable texts and apply them in the business plan document.
### Planning of activities

#### INFORMATION RETRIEVAL

<table>
<thead>
<tr>
<th>Description:</th>
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<tbody>
<tr>
<td>Students will gather useful information and evaluate the sources and references found for the project. Groups of 4-5 students will search for technical information that will enable them to carry out their assignments. They will share the information found for subsequent development and evaluation.</td>
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<table>
<thead>
<tr>
<th>Support materials:</th>
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<tbody>
<tr>
<td>An information session given by the Campus Library Service.</td>
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</table>

<table>
<thead>
<tr>
<th>Description of the assignments due and their relation to the assessment:</th>
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<tbody>
<tr>
<td>The assignments will be subject to formative assessment. A bibliography must be included in the business plan.</td>
<td></td>
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<tr>
<td>- The bibliography</td>
<td></td>
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<tr>
<td>- An appraisal of the information</td>
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<table>
<thead>
<tr>
<th>Specific objectives:</th>
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<tbody>
<tr>
<td>Students will familiarise themselves with the UPC Library Catalogue and gather information using Internet search engines.</td>
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<table>
<thead>
<tr>
<th>Hours:</th>
<th>6h</th>
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<tbody>
<tr>
<td>Self study:</td>
<td>6h</td>
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#### WRITTEN COMMUNICATION

<table>
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<tr>
<th>Description:</th>
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<tr>
<td>Students will develop their projects in teams by preparing draft and final versions of the business plan. The final version will incorporate the lessons learned in the exercises.</td>
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<tr>
<th>Support materials:</th>
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<tbody>
<tr>
<td>Notes and webs</td>
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<table>
<thead>
<tr>
<th>Description of the assignments due and their relation to the assessment:</th>
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</thead>
<tbody>
<tr>
<td>Assessment will be formative. Students will participate in their own learning by self-assessment and co-assessment.</td>
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| They will be given the appropriate guidelines and examples to help them prepare and evaluate their tasks. Lecturers will provide feedback on their progress. Because the assessment is formative, the assignments are compulsory and will count for 25% of the final mark for communication. Assignments will be graded as Satisfactory (if the assignment has been handed in and the suggestions for improvement given by staff/colleagues have been adopted), Unsatisfactory (if the assignment has been handed in and the suggestions for improvement given by staff/colleagues have not been adopted) or Not completed. To pass this part of the course at least 80% of class and other activities must be completed. The business plan will form 25% of the final mark for communication. Students will be given the criteria for correctly completing this assignment when the project begins. |   |

<table>
<thead>
<tr>
<th>Hours:</th>
<th>14h</th>
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<tr>
<td>Practical classes:</td>
<td>6h</td>
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<tr>
<td>Self study:</td>
<td>8h</td>
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**Specific objectives:**
On completing the course, students will have:
- Applied readability criteria.
- Learnt how to organise a text.
- Learnt how to define and order ideas.
- Applied document presentation criteria.

At the end of the course, students will have prepared the business plan.

**SPOKEN COMMUNICATION**

<table>
<thead>
<tr>
<th>Hours</th>
<th>12h</th>
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<tbody>
<tr>
<td>Practical classes</td>
<td>6h</td>
</tr>
<tr>
<td>Self study</td>
<td>6h</td>
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</tbody>
</table>

**Description:**
Students will prepare an MS PowerPoint presentation of a business plan. As the project develops students will apply their knowledge about verbal communication and prepare the presentation of their business plan.

**Support materials:**
MS PowerPoint, Atenea, webcam, videos, notes, and guidelines on criteria.

**Descriptions of the assignments due and their relation to the assessment:**
Assessment will be formative. Students will participate in their own learning by self-evaluating and co-evaluating. They will be given the appropriate guidelines and examples to help them prepare and evaluate their tasks. Lecturers will provide feedback on their progress.

Assignments will be graded as Satisfactory (if the assignment has been handed in and the suggestions for improvement given by staff/colleagues have been adopted), Unsatisfactory (if the assignment has been handed in and the suggestions for improvement given by staff/colleagues have not been adopted) or Not completed. Between three and four assignments will be corrected and given a mark from 0 to 10.

To pass this part of the course at least 80% of class and other activities must be completed.

The presentation of the business plan will count as 25% of the final mark for communication. Students will be given the criteria for preparing and delivering the presentation when the project begins. A representative student will be randomly selected from each group to give the presentation and the mark will count for the group as a whole, thus bringing the issue of personal responsibility into play.

**Specific objectives:**
On completing the course, students will have learnt and applied the following presentation concepts:
- Reasoning
- Body language
- Voice projection
- Audio resources
- Visual resources

On completing the course, students will present the business plan.
**MS POWERPOINT**

**Hours:** 8h  
Practical classes: 2h  
Self study: 6h

**Description:**  
Students will learn how to effectively use MS PowerPoint in the preparation of their business plan presentation.

**Support materials:**  
Examples of PowerPoint for analysis, as well as demonstrations.

**Descriptions of the assignments due and their relation to the assessment:**  
Each group will prepare at least 3 PowerPoint (formative assessment). Each group will prepare a PowerPoint presentation of the business plan.

**Specific objectives:**  
On completing the course, students will have prepared a PowerPoint presentation of the business plan.

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**ROLE-PLAY (BUSINESS)**

**Hours:** 1h  
Practical classes: 1h

**Description:**  
Computerised role-play to gain an understanding of international business relations.

**Support materials:**  
Instant message service, rules, and test.

**Descriptions of the assignments due and their relation to the assessment:**  
Test forms 12.5% of the mark for sustainability.

**Specific objectives:**  
To understand aspects of international trade.

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**VIDEO**

**Hours:** 3h  
Practical classes: 1h  
Self study: 2h

**Description:**  
Screening of the video 'The Story of Stuff' followed by discussion and group answers to questions.

**Support materials:**  
Video and test.

**Descriptions of the assignments due and their relation to the assessment:**  
Test forms 12.5% of the mark for sustainability.

**Specific objectives:**  
To learn to critically discuss consumerism and non-sustainability.
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**TESTS**

| Description: | Hours: 7h  
Practical classes: 1h  
Self study: 6h |
<table>
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<tbody>
<tr>
<td>Tests on the sustainability concepts studied.</td>
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</table>

**Support materials:**
Electronic and paper tests/Atenea

**Descriptions of the assignments due and their relation to the assessment:**
Tests  
Co-assessment among colleagues. The results of the co-assessment and online assessment on Atenea will be compared. Topics 1 and 2 count for 20% of the mark for sustainability. Topics 3 and 4 count for 20%. (The sustainability part of the project, the environmental impact assessment questionnaire and indicators, will form 5% + 5%).

**Specific objectives:**
To evaluate the knowledge acquired.

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**SIMULATION OF COMPLEX SYSTEMS**

| Description: | Hours: 2h 30m  
Practical classes: 0h 30m  
Self study: 2h |
<table>
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<tbody>
<tr>
<td>Students will run interactive simulations of various complex systems and answer questions.</td>
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**Support materials:**
Electronic simulations and test.

**Descriptions of the assignments due and their relation to the assessment:**
Test forms 12.5% of the mark for sustainability.

**Specific objectives:**
To experiment with complex behaviours.

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**COOPERATION AND DEFECTION GAME**

| Description: | Hours: 3h 30m  
Practical classes: 0h 30m  
Self study: 3h |
<table>
<thead>
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<tbody>
<tr>
<td>Plan a strategy to play an interactive cooperation and defection game tournament.</td>
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</table>

**Support materials:**
Tournament games

**Descriptions of the assignments due and their relation to the assessment:**
A strategy plan, which counts for 12.5% of the mark for sustainability.

**Specific objectives:**
To discover the advantages and risks of cooperation.
**Business Plan**

**Hours:** 19h 50m  
Self study: 4h  
Guided activities: 15h 50m

**Description:**
- Read documentation provided
- Find reliable sources of information relevant
- Canvas develop a business idea chosen
- Analyze the market using Porter’s 5 Forces
- Target customers.
- Positioning the company.
- Define strategies and design a marketing plan.
- Indicate the process and calculate the sales forecast.
- Designing the organizational structure of the company
- Prepare an initial balance
- Prepare a financing plan
- Prepare an income statement
- Analyze the profitability of the company in the first three years.

**Support materials:**
- Notes and webs

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**Qualification system**

Mid-and final semester examination:.....30%  
Project:..................................30%  
Sustainability: .......................15%  
Activities ...............................15%  
Subjective assessment:..........10%

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**Regulations for carrying out activities**

The coordinator must be informed when a student cannot follow the established work plan. No mark will be given if a student is absent without justification during the presentation of the business plan.
Bibliography

Basic:


Complementary:


Others resources:

Hyperlink

Economic and financial business management
http://bibliotecina.upc.es/edupc/locate4.asp?codi=OE008XXX

Tools for analysing the ideas behind a business
http://pinnova.upc.es/Innova/Pagines/servei_emprenedors/assessoria.php?id=5

Business plan model
http://pinnova.upc.es/Innova/Pagines/servei_emprenedors/assessoria.php?id=6

Help for developing an economic and financial plan
https://pinnova.upc.es/Innova/Pagines/servei_emprenedors/assessoria.php?id=7

Types of companies
https://pinnova.upc.es/Innova/Pagines/servei_emprenedors/assessoria.php?id=2
Carpeta apunts i presentació d'ETS

Resource