Course guide
300204 - EMP - Business Management

Unit in charge: Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit:
732 - OE - Department of Management.
748 - FIS - Department of Physics.
Degree: BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING (Syllabus 2015). (Compulsory subject).
Academic year: 2022 ECTS Credits: 6.0 Languages: Catalan

LECTURER

Coordinating lecturer: Definit a la infoweb de l'assignatura.
Others: Definit a la infoweb de l'assignatura.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. CE 6 AERO. Conocimiento adecuado del concepto de empresa, marco institucional y jurídico de la empresa. Organización y gestión de empresas. (CIN/308/2009, BOE 18.2.2009)

General:
CG2. (ENG) CG2 - Planificación, redacción, dirección y gestión de proyectos, cálculo y fabricación en el ámbito de la ingeniería aeronáutica que tengan por objeto, de acuerdo con los conocimientos adquiridos, los vehículos aeroespaciales, los sistemas de propulsión aeroespacial, los materiales aeroespaciales, las infraestructuras aeroportuarias, las infraestructuras de aeronavegación y cualquier sistema de gestión del espacio, del tráfico y del transporte aéreo.
CG7. (ENG) CG7 - Capacidad de analizar y valorar el impacto social y medioambiental de las soluciones técnicas.

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.
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.

Basic:
CB4. (ENG) CB4 - Que los estudiantes puedan transmitir información, ideas, problemas y soluciones a un público tanto especializado como no especializado
CB5. (ENG) CB5 - Que los estudiantes hayan desarrollado aquellas habilidades de aprendizaje necesarias para emprender estudios posteriores con un alto grado de autonomía
CB2. (ENG) CB2 - Que los estudiantes sepan aplicar sus conocimientos a su trabajo o vocación de una forma profesional y posean las competencias que suelen demostrarse por medio de la elaboración y defensa de argumentos y la resolución de problemas dentro de su área de estudio
CB3. (ENG) CB3 - Que los estudiantes tengan la capacidad de reunir e interpretar datos relevantes (normalmente dentro de su área de estudio) para emitir juicios que incluyan una reflexión sobre temas relevantes de índole social, científica o ética
TEACHING METHODOLOGY

Company is based on the PBL methodology, Project Based Learning and Learning by doing. The course offers students the challenge of thinking of a business idea to create a Startup using the Lean startup methodology. The ultimate goal is to prepare a document outlining the project. At the end of the course students will present an Elevator Pitch of the project.

Through the proposed project, students will learn the basic elements involved in the creation of a company and its external conditions, such as market analysis, source of funding and marketing plan.

The methodology used will involve teamwork, autonomous learning and individual responsibility to the group. Teachers will guide and provide tools to make it possible for students to apply the knowledge acquired independently. Oral presentations of intermediate activities will allow the analysis and evaluation of the work done by the groups. The final document will be the evidence of the learning achieved and will allow the evaluation of the final work.

LEARNING OBJECTIVES OF THE SUBJECT

On completion of Management, students will be able to:
· understand the concepts behind the Lean Startup methodology;
· interpret basic business information;
· understand the factors involved in making business decisions;
· understand the main elements of economic activity and their functions as part of a system;
· identify the elements that regulate business activity;
· understand the regulation of the aeronautical market;
· write a general interest article following suggested criteria for effective written communication;
· present the project following suggested criteria for effective spoken communication;
. Write a Business Plan.
· identify appropriate sources of documentation for preparing specific communicative tasks;
· make effective use of multimedia resources.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Self study</td>
<td>84,0</td>
<td>56.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>24,0</td>
<td>16.00</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>42,0</td>
<td>28.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h
## Contents

### Company Management

**Description:**

1. **COMPANY**

2. **BUSINESS CREATION**
   Phases in business creation: Opportunity identification, accumulation of resources, launch phase, consolidation phase and growth phase; Canvas and Lean Canvas. Competitor analysis and positioning; Product definition; Minimum viable product. The human team: Professional profiles; Operating plan and budgeting. Financial plan and ratios.

### Specific objectives:

- Identify reliable sources of information
- Understand the elements of a Canvas / Lean Canvas
- Understanding the Lean Startup methodology
- 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.

### Related activities:

- English
- Read documentation provided
- Interview potential customers to confirm the business idea
- Find reliable sources of information relevant
- Make a Canvas of the client and a canvas of the chosen business idea
- 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.

### Full-or-part-time: 106h 12m
- Theory classes: 36h
- Guided activities: 7h 12m
- Self study: 63h
Oral Communication

Description:
1. How to develop an effective oral resource.
2. How to speak well in public
3. How to make a pitch elevator

Specific objectives:
1. Practice presentations to improve oral communication
2. Practice the elaboration of visual resources: PPT / Prezi to learn to present effective contents

Related activities:
1. Present the evaluable sections
2. Elaborate a Power Point or Prezi of the evaluable sections
3. Write the elevator pitch scripts
4. Final presentation of the project in elevator pitch format

Full-or-part-time: 8h 18m
Theory classes: 2h
Guided activities: 1h 48m
Self study: 4h 30m

Aeronavigation

Description:
AIR FIELD
The liberalization of air transport. Competition. Anticompetitive practices. coefficient

Related activities:
The methodology "News report" is worked where they have to choose a news/event/tendance/interest-theme related to air transport (the topics described in CG2 have been dealt with within this news report). Once the theme is chosen, they must write a video script, structuring a consistent and concise message. Finally they must record an explanatory video of up to 60 seconds explaining the topic. CG2 Competition.
Videos feature themes that have externalities (positive and negative) mostly related to emissions and fossil fuel dependence - the methodology to class based on less content brought to more depth is based on stimulating debates and promoting the discovery of different views. In this respect, we are trying to make pupils realise that in terms of management, not everything is black or white, but there are grey ones. Examples: overbooking of flights, demand stimulation, pollution, correlation between wealth generation and air transport development. CG7 competency

Related competencies:
CG2. (ENG) CG2 - Planificación, redacción, dirección y gestión de proyectos, cálculo y fabricación en el ámbito de la ingeniería aeronáutica que tengan por objeto, de acuerdo con los conocimientos adquiridos, los vehículos aeroespaciales, los sistemas de propulsión aeroespacial, los materiales aeroespaciales, las infraestructuras aeroportuarias, las infraestructuras de aeronavegación y cualquier sistema de gestión del espacio, del tráfico y del transporte aéreo.
CG7. (ENG) CG7 - Capacidad de analizar y valorar el impacto social y medioambiental de las soluciones técnicas.

Full-or-part-time: 35h 30m
Theory classes: 10h
Guided activities: 3h
Self study: 22h 30m

GRADING SYSTEM
EXAMINATION RULES.

Any student unable to follow the work plan outlined at the beginning of the course must inform the subject coordinator. Any student who fails to submit work for assessment will be awarded a mark of 0 for the formative assessment of the activity in question.

Any student who does not attend the project presentation and cannot provide evidence of extenuating circumstances will be awarded a mark of 0 for this activity.

BIBLIOGRAPHY

Basic:
- Fitzpatrick, Rob. The MOM test : how to talk customers and learn if your business is a good idea when everyone is lyint to you. Leipzig: Founder Centric, 2014. ISBN 9781492180746.

RESOURCES

Audiovisual material:
- Nom recurs. Resource
- Videos sobre Lean Startup i startup i 5 forces de Porter. Resource of the creators of the concepts Lean Startup, Startup and the 5 Forces of Porter.
- Rúbriques. Resource to elaborate the evaluable sections and to understand the obtained qualification

Computer material:
- Plantilla Excel Pla financer. Resource to draw up the financial plan for the project

Hyperlink:
- Material didàctic complementari. Resobased on examples of the topics presented in class and the notes that help to develop the projecture
- Ajut pel desenvolupament del pla econòmic-financer
- Formes jurídiques
- Carpeta apunts i presentació de l'assignatura Empresa. Resource
- Taula seguiment activitats. Resource shared with students to give feedback on the activities delivered.