



Course guide

300080 - RAB - Uas Applications and Business

Last modified: 27/11/2020

Unit in charge: Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit: 739 - TSC - Department of Signal Theory and Communications.

Degree: MASTER'S DEGREE IN APPLICATIONS AND TECHNOLOGIES FOR UNMANNED AIRCRAFT SYSTEMS (DRONES) (Syllabus 2017). (Compulsory subject).

Academic year: 2020 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Defined in the infoweb of the course

Others: Defined in the infoweb of the course

PRIOR SKILLS

None.

REQUIREMENTS

None.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CE7 DRONS. (ENG) CE7 DRONS Explicar con claridad, tanto a una audiencia especializada como no especializada, las características más importantes de las aplicaciones actuales de los drones y los ámbitos de negocio en los que se prevé que los drones pueden tener un impacto importante a medio y largo plazo.

Transversal:

CT4. EFFECTIVE USE OF INFORMATION RESOURCES: Managing the acquisition, structuring, analysis and display of data and information in the chosen area of specialisation and critically assessing the results obtained.

CT5. FOREIGN LANGUAGE: Achieving a level of spoken and written proficiency in a foreign language, preferably English, that meets the needs of the profession and the labour market.

Basic:

CB6 DRONS. (ENG) CB6 DRONS Poseer y comprender conocimientos que aporten una base u oportunidad de ser originales en el desarrollo y/o aplicación de ideas, a menudo en un contexto de investigación

CB10 DRONS. (ENG) CB10 DRONS Que los estudiantes posean las habilidades de aprendizaje que les permitan continuar estudiando de un modo que habrá de ser en gran medida autodirigido o autónomo.

TEACHING METHODOLOGY

Master classes on business and applications for drones.
Invited talks given by professionals in the field of applications for drones.

LEARNING OBJECTIVES OF THE SUBJECT

The objectives pursued in the master classes of business and applications for drones are:

- The student has to be able to design a product related with Drone Applications.
- The student has to be able to define a business plan and create its corresponding deck (Investment Document).
- The student has to be able to present the deck in an "Investor Pitch" to start a company with new funds.

The objective pursued with the invited talks is to provide an overview of the existing applications for drones.

STUDY LOAD

Type	Hours	Percentage
Self study	57,0	76.00
Hours small group	18,0	24.00

Total learning time: 75 h



CONTENTS

Drone World Market

Description:

- Introduction
- Market Size
- Drone Applications
- Drone Players
- Drone Investments
- Use of Drones in Real Companies

Related activities:

They need to create groups of 2 persons and find topics/activities/applications in the field of drones to create their own start-up.

Full-or-part-time: 8h 40m

Laboratory classes: 2h

Self study : 6h 40m

Product Definition and Canvas Model

Description:

- Create Your Product
- Main Points of Your Products (Scalability Focus)
- Minimum Viable Product
- Canvas Tools (Advanced and Lean)
- Example Case
- In groups of 2 persons Canvas Exercise

Related activities:

Create a canvas tool per project (10% of the final grade)

Full-or-part-time: 10h 20m

Laboratory classes: 2h

Self study : 8h 20m

Value Proposition Canvas and Business Plan

Description:

- Canvas Presentation per Group
- Value Proposition Canvas
- Business Product Definitions
- Profits and Loss
- Investment Requirements
- Return of Investment
- Business Plan Examples

Related activities:

Canvas Pitch (5% of the final grade)

Business Plan per Project (20% of the final grade)

Full-or-part-time: 12h

Laboratory classes: 2h

Self study : 10h



Investment Rounds/Players

Description:

- Business Plan Presentation per Group
- Investment Rounds
- Companies Values
- Deck of Investment

Full-or-part-time: 12h

Laboratory classes: 2h

Self study : 10h

Deck of Investment

Description:

- Investor Parameters
- Deck Exercise per Groups

Related activities:

Deck per Project (30% of the final grade)

Full-or-part-time: 12h

Laboratory classes: 2h

Self study : 10h

Pitch Presentation

Description:

Pitch Presentation

Related activities:

Pitch per Project (30% of the final grade)

Full-or-part-time: 12h

Laboratory classes: 2h

Self study : 10h

MED invited talks

Description:

Around 6 invited talks of professionals working in the field of drone/UAV applications. The speakers may change every year depending on their availability and the state-of-the-art of the market, companies and other players in the field of UAV applications.

Full-or-part-time: 8h

Laboratory classes: 6h

Self study : 2h

GRADING SYSTEM

Project deliverables and oral presentations of the work done.
Attendance to the invited talks.



BIBLIOGRAPHY

Complementary:

- Geoff Smart. Who: The A Method for Hiring. ISBN 978-0345504197.
- Robert T. Kiyosaki . Escape from the Rat Race: How To Become A Rich Kid By Following Rich Dad's Advice .
- Manzanera, Antonio. Finanzas para emprendedores : todo lo que necesitas saber para encontrar financiación y convertir tu idea en negocio. 1a ed. en colección Booket. Barcelona: Deusto, 2013. ISBN 9788423414512.
- Ries, Eric. The Lean startup : how constant innovation creates radically successful businesses. London: Portfolio Penguin, cop. 2011. ISBN 9780670921607.