# uc3m Universidad Carlos III de Madrid

# Information technology and digital business

Academic Year: (2021 / 2022) Review date: 17-06-2021

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: MOLINA LOPEZ, JOSE MANUEL

Type: Electives ECTS Credits: 3.0

Year: 1 Semester: 2

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

An adequate knowledge of the subject "Management of new business activity" in the first semester is recommended

#### **OBJECTIVES**

Students will be able to understand the importance of information and communication technologies for business development in a globalized world.

They will know the facilities that provide new technology and should be able to use it in real development.

The competences that reinforces this matter are the following:

- Ability to understand, analyze and solve complex problems related to the start-up, expansion and consolidation of a business project, based on a broad knowledge of the advanced tools of business management.
- Ability to plan and manage complex projects that involve a large number of diverse tasks.
- Ability to critically analyze cases of real companies and extract from them relevant conclusions for business practice.
- Ability to understand the foundations of entrepreneurial activity, the main determinants of its development and its results

# **DESCRIPTION OF CONTENTS: PROGRAMME**

The content covers the basic elements of application of information and communication technologies as support for the development of new business projects.

It will be focused on the analysis of the following aspects:

The role of information systems and technologies in the company.

Information technologies as an opportunity for the creation of companies

From information management to knowledge management.

Technologies for the new business project

Project management software development

Security in Information and Communication Technologies

E-business:

Competitive advantages on the Internet

Online business models

The security of electronic transactions

# LEARNING ACTIVITIES AND METHODOLOGY

Class activities:

a) Theoretical classes:

Methodology: Lectures with support of computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.

b) Practical classes:

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Methodology: Discussion during the classes, under the moderation of the teacher, of practical assumptions that are related to the content of the subject, which will be distributed to the students for their preparation prior to the class.

#### c) Presentations:

Methodology: Oral presentation by students, which will discuss the aspects related to the planning of systems and information technology and communication of a new business project, for further discussion by students. Personal work of the student:

## a) Resolution of practical cases:

Methodology: Analysis of practical assumptions about which questions related to the content of the subject will be formulated, which must be prepared and resolved as a team, for delivery in writing and subsequent discussion in class.

# b) End of course project

Methodology: Individual writing of a work in which the aspects related to the planning of systems and technologies of information and communication of a new business project will be discussed, both for its delivery in writing and for its presentation in class.

## c) Study

Methodology: Autonomous work of the students.

#### ASSESSMENT SYSTEM

The following evaluation mechanisms are established to verify the acquisition by students of the competences established for the subject:

Written resolution of practical cases: 30%

End-of-course work (including oral presentation): 30%

Final exam: 40%

% end-of-term-examination:	40
% of continuous assessment (assigments, laboratory, practicals):	60

#### **BASIC BIBLIOGRAPHY**

- Chaffey D. E-Business and E-Commerce Management: Strategy, Implementation and Practice, Pearson, 2013
- Tapscott, D., Williams A.D. Wikinomics: How Mass collaboration Changes Everything, Penguin, 2006
- Turban, E. y King D. Electornic Commerce 2012 Global Edition, Pearson, 2012

#### ADDITIONAL BIBLIOGRAPHY

- Andrew Burgess The Executive Guide to Artificial Intelligence: How to identify and implement applications for AI in your organization, Palgrave Macmillan, 2017