# uc3m Universidad Carlos III de Madrid

# Information systems strategic planning

Academic Year: (2020 / 2021) Review date: 20-07-2020

Department assigned to the subject:

Coordinating teacher: GARCIA CRESPO, ANGEL

Type: Compulsory ECTS Credits: 6.0

Year: 1 Semester: 2

#### **OBJECTIVES**

- 1. Capacity for strategic planning, preparation, management, coordination and technical and economic management in the fields of Computer Engineering related, among others, to: systems, applications, services, networks, computer infrastructures or installations and software development centres or factories, respecting the appropriate compliance with quality and environmental criteria and in multidisciplinary work environments.
- 2. Ability to prepare, plan, direct, coordinate and manage technical and economic projects in all areas of Computer Engineering following quality and environmental criteria.
- 3. Ability to prepare, plan, direct, coordinate and manage technical and economic projects in all areas of Computer Engineering following quality and environmental criteria.
- 4. Capacity for general management, technical management and management of research, development and innovation projects in companies and technology centres in the field of Computer Engineering.
- 5. Ability to apply the principles of economics and human resources management and projects, as well as the legislation, regulation and standardization of IT.
- 6. Ability to apply the principles of economics and human resources management and projects, as well as the legislation, regulation and standardization of IT.
- 7. Knowledge, understanding and ability to apply the necessary legislation in the exercise of the profession of Computer Science Engineer.
- 8. Ability to analyse the information needs that arise in an environment and to carry out all stages of the process of building an information system.

## Learning Outcomes:

- Carry out a strategic plan for information systems.
- To be able to direct, coordinate and manage projects of software development factories, computer installations, systems, applications and computer services.
- To be able to manage companies in the field of Computer Engineering.
- To be able to carry out the economic management of projects
- To know and be able to apply the legislation and regulations in force regarding Computer Engineering.
- To know the ethical codes of the profession of Computer Engineering and to be able to apply them.
- Comply with and respect the rights of all parties involved in the exercise of Computer Engineering.

#### **DESCRIPTION OF CONTENTS: PROGRAMME**

- 1. Techniques for analyzing companies.
- 2. Types of organizational structure.
- 3. Identification of problems that may arise with the introduction of an information system.
- 4. Key elements to consider in planning information systems.
- 5. Steps needed to complete the required information analysis by an information system.
- 6. Mechanisms of claim related to strategic planning are true or false depending on the circumstances.
- 7. Techniques to infer the usefulness or otherwise of an information system.
- 8. Management changes in organizational structure.
- 9. Management control concepts for the search needs information.
- 10. Management functions of an information system.
- 11. Information needs in terms of the different roles involved in an information system.
- 12. Basic elements of planning systems and services available in a system department.

### LEARNING ACTIVITIES AND METHODOLOGY

- Exhibitions in class by the teacher with the support of computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the learning of the students.
- Critical reading of texts recommended by the subject teacher: Press articles, reports, manuals and/or academic articles, either for later discussion in class or to expand and consolidate the knowledge of the subject.
- Resolution of practical cases, problems, etc.... raised by the teacher individually or in groups
- Presentation and discussion in class, under the moderation of the teacher, of topics related to the content of the subject, as well as of practical cases.
- Preparation of individual or group work and reports

# ASSESSMENT SYSTEM

The evaluation mission is to determine the degree of fulfillment of learning objectives, therefore all work will be assessed the student, individually or collectively, through ongoing evaluation of its activities through homework and exams, practical work and other activities academic training described above.

There will be a formative assessment through continuous feedback, enabling the student to evaluate what a learner knows and what is expected of him.

The final mark takes into account the student's individual activities and team activities.

% end-of-term-examination:	0
% of continuous assessment (assigments, laboratory, practicals):	100

#### **BASIC BIBLIOGRAPHY**

- Arjonilla Domínguez, Sixto Jesús y Medina Garrido, Jose Aurelio La gestión de los sistemas de información en la empresa, Ed. Pirámide..
- Charles S Parker Management Information Systems: Strategy and Action, McGraw-Hill Inc.
- Laudon y Laudon Management Information Systems, Prentice Hall.
- R. Andreu Estrategia y sistemas de información, Mc Graw Hill.