Project in robotics engineering

Academic Year: (2022/2023)

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Department assigned to the subject: Systems Engineering and Automation Department

Coordinating teacher:

Type: Compulsory ECTS Credits : 3.0

Year : 4 Semester : 1

### DESCRIPTION OF CONTENTS: PROGRAMME

#### 1. Objectives

- 1.1. Development of the general objectives
- 1.2. Role of end users
- 1.3. Preparation of technical specifications
- 1.4. Project life cycle
- 2. Economic-financial study
  - 2.1. Methodology of the economic-financial calculation
  - 2.2. Development of economic-financial objectives
  - 2.3. Study of the expected advantages over traditional solutions
- 3. Technical development of the project
  - 3.1. Project engineering
  - 3.2. Technical solutions adopted
  - 3.3. Regulations, regulations, and standards used
- 4. Morphology of the project
  - 4.1. Documentary organization of the project
  - 4.2. Document, diagrams, drawings
  - 4.3. Conclusions of the implementation of the project
- 5. Project management
  - 5.1. Technical project management tools
  - 5.2. Administrative management
  - 5.3. Ethical, legal, and environmental aspects
- 6. Presentation, communication, and social responsibility
  - 6.1. Presentation of the project and preparation of summaries
  - 6.2. Communication and dissemination of the objectives and results
  - 6.3. Professional deontology and social responsibility

# LEARNING ACTIVITIES AND METHODOLOGY

### THEORETICAL PRACTICAL CLASSES.

Knowledge and concepts students must acquire. Receive course notes and will have basic reference texts. Students partake in exercises to resolve practical problems.

TUTORING SESSIONS.

Individualized attendance (individual tutoring) or in-group (group tutoring) for students with a teacher. Subjects with 6 credits have 4 hours of tutoring/ 100% on- site attendance.

STUDENT INDIVIDUAL WORK OR GROUP WORK. Subjects with 6 credits have 98 hours/0% on-site.

WORKSHOPS AND LABORATORY SESSIONS.

Subjects with 3 credits have 4 hours with 100% on-site instruction. Subjects with 6 credits have 8 hours/100% on-site instruction.

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#### ASSESSMENT SYSTEM

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

### FINAL EXAM.

Global assessment of knowledge, skills and capacities acquired throughout the course. The percentage of the evaluation varies for each subject between 60% and 0%.

# CONTINUOUS EVALUATION.

Assesses papers, projects, class presentations, debates, exercises, internships and workshops throughout the course. The percentage of the evaluation varies for each subject between 40% and 100% of the final grade.