

Academic Year: ( 2022 / 2023 )

Review date: 07-04-2022

Department assigned to the subject: Electrical Engineering Department

Coordinating teacher: ROBLES MUÑOZ, GUILLERMO

Type: Compulsory ECTS Credits : 3.0

Year : 3 Semester : 1

**DESCRIPTION OF CONTENTS: PROGRAMME**

1. Introduction to Electrical Machines.
  - a. General features
  - b. Machine classification
  - c. Electrical machines applied to robotics
- 2 Servos machines.
  - a. Physical constitution
  - b. Drivers
  - c. Machine control
  - d. Applications
3. Stepper motors
  - a. Physical constitution
  - b. Drivers
  - c. Stepper motor control
  - d. Applications
4. Laboratory practices
  - a. Control of a servo
  - b. Control of a stepper motor

**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.

**ASSESSMENT SYSTEM****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.

<b>% end-of-term-examination:</b>	60
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	40

