# Launchers and Re-entry

**Academic Year: ( 2021 / 2022 )** **Review date: 09-06-2021**

**Department assigned to the subject:**

**Coordinating teacher: DI SOTTO , EMANUELE**

**Type: Electives ECTS Credits : 3.0**

**Year : 2 Semester : 1**

## OBJECTIVES

Basic competences

CB6 To possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context
CB7 Students must know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study
CB8 Students must be able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments
CB9 Students must know how to communicate their conclusions and the knowledge and ultimate reasons that sustain them to specialized and non-specialized audiences in a clear and unambiguous way
CB10 Students must have the learning skills allowing them to continue studying in a way that will be largely self-directed or autonomous.

General competences

CG1 Capacity for the formulation, critical verification and defense of hypotheses, as well as the design of experimental tests for verification.
CG5 Ability to handle the English, technical and colloquial language.

Specific competences

CE15 Ability to develop a professional activity in an organization, being aware of the business and enterprise context.

## DESCRIPTION OF CONTENTS: PROGRAMME

1.- Introduction.
2.- Launcher vehicle components and subsystem
3.- Dynamics and ascent reference trajectory
4.- Guidance, navigation and control algorithms
5.- Navigation sensors
6.- Control actuators.

## LEARNING ACTIVITIES AND METHODOLOGY

AF1 Theoretical class
AF3 Practices in computer classroom
AF6 Group work
AF7 Individual student work
AF8 Evaluation activities

## ASSESSMENT SYSTEM

EVALUATION SYSTEMS:

ASSESSMENT SYSTEMS OF THE STUDY PLAN REFERRED TO SUBJECTS

SE2 Individual or group work carried out during the course

| System of Evaluation | Minimum weight (%) | Maximum weight (%) |
|---|---|---|
| SE2 | 40% | 100% |
| SE3 | 0% | 60% |

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