Launchers and Re-entry

Academic Year: (2022 / 2023)

Review date: 27/07/2022 13:00:24

Department assigned to the subject: Aerospace Engineering Department

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

% end-of-term-examination/test:	40
% of continuous assessment (assigments, laboratory, practicals):	60
EVALUATION SYSTEMS:	
ASSESSMENT SYSTEMS OF THE STUDY PLAN REFERRED TO SUBJECTS	

SE2 Individual or group work carried out during the course SE3 Final exam

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