Aerospace Design I

Academic Year: (2017 / 2018) **Review date: 12-01-2017**

Department assigned to the subject: Department of Bioengineering and Aerospace Engineering

Coordinating teacher: DIAZ ALVAREZ, JOSE

Type: Compulsory ECTS Credits : 6.0

Year : 3 Semester : 2

STUDENTS ARE EXPECTED TO HAVE COMPLETED

Aerospace Materials I and II
Engineering Graphics
Thermal Engineering
Aerospace Structures

COMPETENCES AND SKILLS THAT WILL BE ACQUIRED AND LEARNING RESULTS.

The goal of this course is that the student acquires a basic knowledge of aerospace design and manufacturing.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction to production.
2. Manufacturing cost estimating.
3. Geometrical and dimensional specification.
4. Metrology.
5. Metal casting processes.
6. Forming and shaping processes.
7. Machining processes.
8. Nontraditional manufacturing processes.
9. Automation of Manufacturing Processes.

LEARNING ACTIVITIES AND METHODOLOGY

Theory sessions.
Problem sessions working individually and in groups.
Lab-sessions.

ASSESSMENT SYSTEM

End-of-term exam (60%)
Continuous evaluation (40%)

The following requirements have to be met in order to pass the subject:

1) to have a MINIMUM mark of 4.0/10 in the end-of-term exam;
2) to have a minimum overall mark of 5.0/10 (weighing 60% the end-of-term exam mark and 40% the mark of the continuous evaluation).

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

BASIC BIBLIOGRAPHY

- S. Kalpakjian & S. R. Schmid Manufacturing and Engineering Technology, Prentice Hall; 6th Revised edition , 2009

ADDITIONAL BIBLIOGRAPHY

- Mikell P. Groover (Author) Fundamentals of Modern Manufacturing: Materials, Processes, and Systems, JOHN WILEY & SONS, INC., 2012