AEROSPACE ENGINEERING (LM52)

(Brindisi - Università degli Studi)

Teaching COMPUTER AIDED DESIGN FOR AEROSPACE APPLICATIONS

GenCod A005152
Owner professor Marta DE GIORGI

Teaching in italian COMPUTER AIDED DESIGN FOR AEROSPACE

Teaching COMPUTER AIDED DESIGN FOR AEROSPACE APPLICATIONS
SSD code ING-IND/15

Reference course AEROSPACE ENGINEERING
Course type Laurea Magistrale

Credits 6.0

Teaching hours Ore-Attivita-frontale: 54.0

For enrolled in 2018/2019

Taught in 2018/2019

Course year 1

Language INGLESE

Curriculum PERCORSO COMUNE

Location Brindisi

Semester Secondo-Semestre

Exam type Orale

Assessment Voto-Finale

Course timetable
https://easyroom.unisalento.it/Orario

REQUIREMENTS

Sufficiency in geometry and linear algebra.

COURSE AIMS

Overview
Computer aided design aims at developing engineering design skills with a particular focus on the proficient use of modern CAD-integrated analysis tools.

Learning Outcomes
After the course the student should be able to
* acquire detailed knowledge and understanding of the most recent advances in 3D computer aided design.
* know the fundamental building blocks for creating parametric geometry.

ASSESSMENT TYPE

The exam consists of two cascaded parts (maximum overall duration: three hours).
The first part is closed book (duration: one hour); the student is asked to illustrate some theoretical topics.
The second part, that starts when the student has completed the first part (duration: two hours), consists in modelling, using CATIA, a given mechanical/aeronautical component and outputting the detail drawing.

FULL SYLLABUS

Introduction: CAD/CAM/CAE systems in the industrial product development cycle.

Geometric modeling methods and techniques.

The representation schemes of solid geometry: CSG, B-rep, finite elements, schemes by enumeration of occupied spaces .

CATIA V5: Introduction

CATIA V5: The sketching

CATIA V5: Part Design

CATIA V5: Assembly Design

CATIA V5: Generative Shape Design

CATIA V5: Drawing