

AEROSPACE ENGINEERING (LM52)

(BRINDISI - Università degli Studi)

Insegnamento COMPUTING AND MECHANICAL DESIGN

GenCod A003314

Insegnamento COMPUTING AND MECHANICAL DESIGN

Insegnamento in inglese COMPUTING AND MECHANICAL DESIGN

Settore disciplinare ING-IND/15

Corso di studi di riferimento AEROSPACE ENGINEERING

Tipo corso di studi Laurea Magistrale

Crediti 9.0

Ripartizione oraria Ore Attività frontale: 78.0

Per immatricolati nel 2013/2014

Erogato nel 2013/2014

Anno di corso 1

Lingua

Percorso PERCORSO COMUNE

Docente Anna MORABITO

Sede BRINDISI

Periodo Secondo Semestre

Tipo esame Orale

Valutazione Voto Finale

Orario dell'insegnamento

<https://easyroom.unisalento.it/Orario>

PREREQUISITI

Sufficiency in geometry and linear algebra.

OBIETTIVI FORMATIVI

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.

MODALITA' D'ESAME

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.

PROGRAMMA ESTESO

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 .
2D and 3D geometric transformations.
CATIA V5: Introduction
CATIA V5: The sketching
CATIA V5: Part Design
CATIA V5: Assembly Design
CATIA V5: Generative Shape Design
CATIA V5: Drawing

TESTI DI RIFERIMENTO

Lee Kunwoo, "Principles of CAD/CAM/CAE Systems", Addison Wesley Longman
▪Mortenson M.E., "GeometricModelling", John Wiley and Sons, 1997.
▪Ibrahim Zeid, "Mastering CAD/CAM", McGrawHill
▪Michel Michaud, CATIA-Core Tools, McGrawHill
▪Lucidi delle lezioni