

25844 - Analysis of Pieces and Computer-Assisted Assembly

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	271 - Bachelor's Degree in Industrial Design and Product Development Engineering
ECTS	7.5
Course	
Period	First Four-month period
Subject Type	Optional
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

The learning process that has been designed for this subject is based on problems solving and self-learning

5.2.Learning activities

1. Master classes and problems
2. Practices
3. Seminar

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5.3.Program

The program includes the following activities

Block I: Introduction to the methodology and to the calculation- simulation tools based on the finite element method (FEM)

Block II: Aspects of 3D modeling.

Block III: Kinematic and dynamic calculation of mechanisms.

Block IV: Preprocessing module of FEM.

Block V: Calculation process, results analysis and optimization.

Practices:

Five practice sessions developed by computer are proposed.

Seminar:

A seminar will be held to present and define subject work.

5.4.Planning and scheduling

5.5.Bibliography and recommended resources

- Gómez González, Sergio. SolidWorks práctico / Sergio Gómez González . - 1ª ed. Barcelona : Marcombo , cop. 2012
- Gómez González, Sergio. SolidWorks Simulation / Gómez González, Sergio . Editorial RA-MA, 2010
- Planchard, David C.. SolidWorks 2006 tutorial : a step-by-step project based approach utilizing 3D solid modelling / David C. Planchard, Schroff Development Corporation, Marie P. Planchard Kansas : Schroff Development Corporation, cop. 2006
- Oñate Ibañez de Navarra, Eugenio. Cálculo de estructuras por el método de elementos finitos : análisis estático lineal / Eugenio Oñate Ibañez de Navarra . - [2a. ed.] Barcelona : Centro internacional de Métodos Numéricos en Ingeniería, 1995
- 20 YC Symposium 2006 . State of the Art of CAD/CAM Restorations / edited by Werner H. Mörmann. London [etc.] : Quintessence, 2006.