



# Course guide

## 240035 - 240035 - Engineering Drawing II

Last modified: 22/12/2023

**Unit in charge:** Barcelona School of Industrial Engineering  
**Teaching unit:** 717 - DEGD - Department of Engineering Graphics and Design.

**Degree:** BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Compulsory subject).

**Academic year:** 2023    **ECTS Credits:** 3.0    **Languages:** Catalan, Spanish

### LECTURER

**Coordinating lecturer:** Alsina Torrent José María

**Others:** Villa Sicilia, Arantza  
Fernández Sánchez, Joaquín  
Mataró Villacampa, Joan  
Robert Rincón, Miguel

### TEACHING METHODOLOGY

### LEARNING OBJECTIVES OF THE SUBJECT

#### GENERAL

Learn to apply graphic computer tools related to industrial design.

The set of classes in the subject are aimed to make the student familiar with graphic tools and working methods for the creation, representation, analysis and modification of the design of an object or mechanism.

#### SPECIFIC

The objectives are met by carrying out specific application exercises, according to the following classification and with the contents specified later.

- Model and representation of individual objects in 3D (pieces and assemblies), of varying difficulty, of which the corresponding drawings are provided to help their visualization.
- Learn the dimensioning conditions for manufacturing and the concept of tolerances
- Make assembly and operation animations of mechanisms.
- Use industrial applications, such as sheet metal and welded elements.
- Introduce some tools to validate a design, such as simple motion analysis and basic finite element simulations.
- Introduce the realization of macros and parametric design
- Do a final work on a mechanism or design application to solve a problem applying what has been learned during the course.

### STUDY LOAD

Type	Hours	Percentage
Self study	45,0	60.00
Hours medium group	30,0	40.00

**Total learning time:** 75 h



## CONTENTS

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### title english

**Description:**

content english

**Full-or-part-time:** 4h

Theory classes: 1h

Practical classes: 1h

Self study : 2h

### title english

**Description:**

content english

**Full-or-part-time:** 7h

Theory classes: 1h

Practical classes: 3h

Self study : 3h

### title english

**Description:**

content english

**Full-or-part-time:** 11h

Theory classes: 1h

Practical classes: 4h

Self study : 6h

### title english

**Description:**

content english

**Full-or-part-time:** 6h

Theory classes: 4h

Practical classes: 2h

### title english

**Description:**

content english

**Full-or-part-time:** 17h

Theory classes: 1h

Practical classes: 1h

Self study : 15h



#### title english

**Description:**

content english

**Full-or-part-time:** 11h

Theory classes: 1h

Practical classes: 4h

Self study : 6h

#### title english

**Description:**

content english

**Full-or-part-time:** 8h

Theory classes: 1h

Practical classes: 2h

Self study : 5h

#### title english

**Description:**

content english

**Full-or-part-time:** 9h

Theory classes: 1h

Practical classes: 4h

Self study : 4h

## GRADING SYSTEM

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## BIBLIOGRAPHY

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**Basic:**

- Félez , Jesús ; María Luisa Martínez. Ingeniería gráfica y de diseño. . Madrid: Síntesis, 2008. , ISBN 9788497564991.

- Bertoline, Gary R ; Eric N. Wiebe.. Technical graphics communication. 3rd. Boston: McGraw-Hill, 2003, ISBN 0073655988..