

Course guide

240640 - 240640 - Plans and 3D Printing

Last modified: 15/07/2025

Unit in charge: Barcelona School of Industrial Engineering
Teaching unit: 712 - EM - Department of Mechanical Engineering.

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

Academic year: 2025 **ECTS Credits:** 4.5 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Fenollosa Artes, Felip

Others: Fenollosa Artes, Felip
Buj Corral, Irene

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CE5. Spatial vision capacity and knowledge on graphic representation techniques, both with traditional methods of metrical geometry and descriptive geometry, and by means of computer aided design applications.

CE15. Basic knowledge of industrial production systems.

CETI6. Knowledge applied to manufacturing systems and processes, metrology and quality control.

CETI1. Knowledge and capacities to calculate, design and test machines.

Generical:

CG8. PROJECT MANAGEMENT: Being able to present, execute and direct Industrial Engineering projects, by means of applying scientific and technological knowledge, attitudes and procedures, once conditions have been identified or valued.

Transversal:

05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.

07 AAT. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours small group	15,0	13.33
Self study	67,5	60.00
Hours large group	30,0	26.67

Total learning time: 112.5 h



CONTENTS

title english

Description:

content english

Full-or-part-time: 26h 15m

Theory classes: 10h 30m

Self study : 15h 45m

title english

Description:

content english

Full-or-part-time: 7h 30m

Theory classes: 3h

Self study : 4h 30m

title english

Description:

content english

Full-or-part-time: 18h 45m

Theory classes: 7h 30m

Self study : 11h 15m

title english

Description:

content english

Full-or-part-time: 7h 30m

Theory classes: 3h

Self study : 4h 30m

title english

Description:

content english

Full-or-part-time: 26h 15m

Theory classes: 10h 30m

Guided activities: 15h 45m



title english

Description:

content english

Full-or-part-time: 26h 15m

Theory classes: 10h 30m

Self study : 15h 45m

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Chevalier, A. Dibujo Industrial. México: LIMUSA, 1992. ISBN 9789681839482.
- Gómez González, Sergio. Impresión 3D. Barcelona: Marcombo, 2016. ISBN 9788426723536.

Complementary:

- Hernández Abad, Francisco. Ingeniería Gráfica : Introducción a la normalización. Terrassa: Departament d'Expressió Gràfica UPC, 2008. ISBN 8460946592.

RESOURCES

Audiovisual material:

- Nom recurs. Resource