

Course guide

205251 - SMDI - Material Selection in Industrial Design

Last modified: 11/04/2025

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 702 - CEM - Department of Materials Science and Engineering.

Degree: BACHELOR'S DEGREE IN TEXTILE TECHNOLOGY AND DESIGN ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2025 **ECTS Credits:** 6.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: José Ignacio Velasco

Others:

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	20.00
Self study	90,0	60.00
Hours small group	30,0	20.00

Total learning time: 150 h

CONTENTS

title english

Description:
content english

Full-or-part-time: 6h
Theory classes: 2h
Laboratory classes: 2h
Self study : 2h



title english

Description:

content english

Full-or-part-time: 40h

Laboratory classes: 24h

Self study : 16h

title english

Description:

content english

Full-or-part-time: 10h

Laboratory classes: 4h

Self study : 6h

title english

Description:

content english

Full-or-part-time: 10h

Laboratory classes: 4h

Self study : 6h

title english

Description:

content english

Full-or-part-time: 10h

Theory classes: 4h

Self study : 6h

title english

Description:

content english

Full-or-part-time: 10h

Theory classes: 4h

Self study : 6h



title english

Description:

content english

Full-or-part-time: 10h

Theory classes: 4h

Self study : 6h

title english

Description:

content english

Full-or-part-time: 10h

Theory classes: 4h

Self study : 6h

title english

Description:

content english

Full-or-part-time: 44h

Theory classes: 4h

Laboratory classes: 4h

Self study : 36h

ACTIVITIES

name english

Full-or-part-time: 52h

Theory classes: 20h

Self study: 32h

name english

Full-or-part-time: 12h

Theory classes: 6h

Self study: 6h

name english

Full-or-part-time: 2h

Laboratory classes: 2h



name english

Full-or-part-time: 40h
Laboratory classes: 24h
Self study: 16h

name english

Full-or-part-time: 44h
Theory classes: 4h
Laboratory classes: 4h
Self study: 36h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Ashby, M. F.; Johnson, Kara. Materials and design: the art and science of material selection in product design [on line]. 2nd ed. Amsterdam [etc.]: Butterworth Heinemann, 2010 [Consultation: 20/09/2022]. Available on: <https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9781856174978/materials-and-design#book-info>. ISBN 9781856174978.

Complementary:

- Ashby, M. F. Materials selection in mechanical design [on line]. 4th ed. Burlington (Massachusetts): Butterworth-Heinemann, 2011 [Consultation: 20/09/2022]. Available on: <https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9781856176637/materials-selection-in-mechanical-design>. ISBN 9781856176637.