

Course guide

210756 - EMPC - Evolution of Building Materials and Products

Last modified: 15/07/2024

Unit in charge: Barcelona School of Architecture
Teaching unit: 753 - TA - Department of Architectural Technology.

Degree: MASTER'S DEGREE IN ADVANCED STUDIES IN ARCHITECTURE-BARCELONA (Syllabus 2015). (Optional subject).

Academic year: 2024 **ECTS Credits:** 5.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: JORGE PAGES SERRA

Others: Primer quadrimestre:
JORGE PAGES SERRA - ITA1

TEACHING METHODOLOGY

Go to Spanish or Catalan version.

LEARNING OBJECTIVES OF THE SUBJECT

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STUDY LOAD

Type	Hours	Percentage
Self study	87,5	70.00
Hours large group	37,5	30.00

Total learning time: 125 h

CONTENTS

title english

Description:

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Specific objectives:

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Full-or-part-time: 125h

Theory classes: 15h

Laboratory classes: 30h

Self study : 80h



GRADING SYSTEM

Go to Spanish or Catalan version.

BIBLIOGRAPHY

Basic:

- Fernández, J. Material architecture: emergent materials for innovative buildings and ecological construction. Oxford: Architectural Press, 2006. ISBN 0750664975.
- Mater in progress: nuevos materiales, nueva industria. Barcelona: FAD, 2008. ISBN 9788461217403.
- Ritter, A. Smart materials: in architecture, interior architecture and design [on line]. Basel: Birkhauser, 2007 [Consultation: 10/03/2022]. Available on: <https://www-degruyter-com.recursos.biblioteca.upc.edu/document/doi/10.1007/978-3-7643-8227-8/html>. ISBN 9783764373276.
- Dunn, N. Proyecto y construcción digital en arquitectura. Barcelona: Blume, 2012. ISBN 9788498016260.
- Beylerian, G. M.; Dent, A. Ultramateriales: formas en que la innovación en los materiales cambia el mundo. Barcelona: Blume, 2007. ISBN 9788498012521.

Complementary:

- Berge, B. Ecology of building materials. 2nd. ed.. Oxford, etc.: Architectural Press, 2009. ISBN 9781856175371.
- Construction materials manual [on line]. Basel, etc.; Munich: Birkhauser; Detail, 2006 [Consultation: 12/05/2020]. Available on: <https://doi.org/10.11129/detail.9783034614559>. ISBN 9783764375706.
- Bennett, D.. Sustainable concrete architecture. London: RIBA Publishing, 2010. ISBN 1859463525.
- Meisel A. LEED materials: a resource guide to green building. New York: Princeton Architectural Press, 2010. ISBN 978-1568988856.
- Construction manual for polymers + membranes: materials, semi-finished products, form-finding, design [on line]. Basel, etc.; Munich: Birkhauser; Detail, 2011 [Consultation: 12/05/2020]. Available on: <https://doi.org/10.11129/detail.9783034614702>. ISBN 9783034607261.