Course guide
210758 - TCEIA - Advanced Technology for the Construction of the Interior Space in Architecture

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: 2022  ECTS Credits: 5.0  Languages: English

LECTURER

Coordinating lecturer: JOAN LLUIS ZAMORA MESTRE
Others: Segon quadrimestre:
JOAN LLUIS ZAMORA MESTRE - ITA2

PRIOR SKILLS

Students who take this course should have basic knowledge in the techniques of construction and refurbishment of the interior architecture.

REQUIREMENTS

This course has no prerequisites from master's level

TEACHING METHODOLOGY

Presentation Method / Master Class
Participatory class
Self work
Problem-based learning
Case study
Tutoring

LEARNING OBJECTIVES OF THE SUBJECT

Be able to:
- Applying resources to critical analysis of the progress of technology architecture in new materials, techniques and building systems, and environmental conditioning.
- Implement the new knowledge in the field of research and professional advanced architectural technology
- Deepen knowledge related to technological innovation, particularly in sustainable construction in the industrialization of construction, environmental conditioning systems of buildings, and digital techniques of design and production material.
**STUDY LOAD**

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Hours large group</td>
<td>15,0</td>
<td>12.00</td>
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<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>24.00</td>
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<tr>
<td>Self study</td>
<td>80,0</td>
<td>64.00</td>
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</tbody>
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**Total learning time**: 125 h

**CONTENTS**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Diachronic evolution of architectural interior space technology, recognizing vectors evolution.</td>
</tr>
<tr>
<td>2. Descriptive analysis of the advanced technical requirements that currently exist in the paving and</td>
</tr>
<tr>
<td>screeds: recognition in real buildings in operation</td>
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<tr>
<td>3. Descriptive analysis of the new techniques that are currently applied on floors and screeds:</td>
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<td>recognition by benchmarking</td>
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<td>4. Descriptive analysis of commissioning new work processes currently applied on floors and screeds:</td>
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<td>recognition in real works</td>
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<tr>
<td>5. Descriptive analysis of the advanced technical requirements that currently exist in the walls and</td>
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<tr>
<td>interior partitions: recognition in real buildings in operation</td>
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<tr>
<td>6. Descriptive analysis of the new techniques that are currently applied on interior walls and</td>
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<tr>
<td>partitions: recognition by benchmarking</td>
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<tr>
<td>7. Descriptive analysis of commissioning new work processes currently applied on interior walls and</td>
</tr>
<tr>
<td>partitions: recognition in real works</td>
</tr>
<tr>
<td>8. Descriptive analysis of the advanced technical requirements that currently exist in suspended</td>
</tr>
<tr>
<td>ceilings: recognition in real buildings in operation</td>
</tr>
<tr>
<td>9. Descriptive analysis of new techniques currently applied in false ceilings: recognition by</td>
</tr>
<tr>
<td>benchmarking</td>
</tr>
<tr>
<td>10. Descriptive analysis of commissioning new work processes currently applied in false ceilings:</td>
</tr>
<tr>
<td>recognition in real works</td>
</tr>
<tr>
<td>11. Detection current development opportunities in architectural innovation applied indoors</td>
</tr>
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<td>12. Development of proposals for innovation and comparative assessment of their suitability</td>
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<tr>
<td>13. Preparation and publication of communication supports innovation proposals</td>
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<tr>
<td>14. Technical innovation proposals before juries and specialized audiences</td>
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</tbody>
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**Specific objectives:**

1. Advanced knowledge of the technical, formal and informal demands, which currently pose the interior |
   spaces of architecture.                                                                         |
2. Understanding of advanced process implementing own construction work and refurbishment of the     |
   interior architecture                                                                            |
3. Understanding phenomena advanced aging behavior and actual construction elements and conditioning |
   the interior space of architecture.                                                               |
4. Critical knowledge of new construction technologies and packaging that can be applied soon in the  |
   projects of interior architecture.                                                                |
5. Training to address its technical innovation and product development, applied to interior        |
   architecture.                                                                                     |

**Full-or-part-time**: 125h

Theory classes: 15h
Laboratory classes: 30h
Self study : 80h
GRADING SYSTEM

Evaluation system
Continuous assessment throughout the course in successive assessment activities, consisting of:

- WORK STUDY, INDIVIDUAL COOPERATIVE regime. Each student joins a team of 3 people and develops a planned three roles (observation, product, work). This role requires the public to submit a job every 3 weeks (involving quantitative assessment of the performance in the final score is 75%).

- Development team (3 people). Each team will present to the public:
  - a book or/and
  - A material or process innovation or/and
  - The results of a measurement campaign

(Involving quantitative assessment of this final assessment of the performance is 25%)

- Attendance at conferences and visits is mandatory and will be made, whenever possible, within hours of the course. (Involving quantitative assessment of this can weight the final assessment till 10%)

Continuous assessment:
Continuous assessment will be carried out on the basis of the work to develop by the student during the course through the delivery of jobs or the realization of written or/and oral tests, according to the criteria and timetable to be established.

Final assessment:
If the results of the continuous assessment are not positive, it will be possible to perform a second evaluation which will consist in a global final test that can consist in a written or oral exam or the delivery of jobs, in accordance with the criterion of the responsible teachers. To pass the course is essential for students to be presented to all the assessment tests.

Continuous telematic evaluation
In online teaching situations, continuous assessment will be carried out synchronously and asynchronously by the means established by the University and the School, with a periodic record of academic activity through submissions, forums, questionnaires or any other means facilitated by the Atenea platform, or the alternatives provided to the teaching staff. In the situations in which this telematic teaching is a product of face-to-face teaching that has already begun, or for questions of extra-academic order, the changes in the weightings or regular control systems of the teaching will be communicated in detail to all students by the Athena of each subject.

Telematic final evaluation
If the continuous telematic evaluation is not positive, a second evaluation can be carried out, which will consist of a final test of a global nature in telematic format that will be established in accordance with the criteria of the professor responsible and the media and ICTs provided by the University or School.

The measures for adaptation to non-classroom teaching will be implemented in accordance with the criteria of ICT security and personal data protection to ensure compliance with the legislation on Personal Data Protection (RGPD and LOPDGDD)

BIBLIOGRAPHY

Basic:

Complementary:
- AENOR Normas de producto.
RESOURCES

Hyperlink:
- Intranet Docent. https://atenea.upc.edu/moodle/login/index