LECUTRE

Last modified: 23/05/2022

Coordinating lecturer: Francesc Jordana Riba

Others: Vicenç Gibert Armengol

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUDES

Specific:
CE14MUGE. Carry out reliability analysis and study the life cycle of the building and its components
CE12MUGE. Apply management models suitable for edification processes

Transversal:
01 EIN. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.
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.

Basic:
CB7. The students must be able to apply the acquired knowledges and their ability of resolution of problems in new or little known environments inside more wide environments (or multidisciplinary) related with their study field.

TEACHING METHODOLOGY

Master class.
Expository participative class.
Practices.

LEARNING OBJECTIVES OF THE SUBJECT

At the end of the subject the students must be able to:
- Audit a building, its facilities, its uses, the state of preservation and the expenses derived from its exploitation.
- Propose actions of improvement for the maintenance and the exploitation and economic profitability or improvement of the service.
- Temporize the useful life of real-state assets.
- Understand the singularities of each real-state asset.
- Relate activities, uses and users with the durability and link it basing on the vulnerability of the components of the building.
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Hours medium group</td>
<td>5,0</td>
<td>4.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>5,0</td>
<td>4.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>17,5</td>
<td>14.00</td>
</tr>
<tr>
<td>Guided activities</td>
<td>7,5</td>
<td>6.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>72.00</td>
</tr>
</tbody>
</table>

Total learning time: 125 h

CONTENTS

SUBJECT 1. AUDIT OF THE BUILDINGS AND THEIR ACTIVITIES

Description:
Analysis of the building, facilities and uses, considering the age and the preservation state.
Inventory of the construction elements, the facilities and the uses of the spaces.
Determination of the energetic expenses of exploitation, maintenance, etc.

Specific objectives:
Make a complete audit of a building, and its functioning.

Related activities:
Theoretical explanation classes.
Activity 1: Audit and inventory of a building.

Full-or-part-time: 31h
Theory classes: 4h
Practical classes: 2h 30m
Guided activities: 2h
Self study: 22h 30m

SUBJECT 2. ANALYSIS AND CONCLUSIONS OF THE AUDIT AND PLAN OF PROPOSALS FOR IMPROVEMENT

Description:
Analysis and conclusions of the audit.
Technical and economic analysis.
Making of a valued improvement plan.

Specific objectives:
Analyze the results of the audit, from a technical and an economic point of view.

Related activities:
Classes of theoretical explanation.
Activity 2: Analysis of the audit and improvement proposals.

Full-or-part-time: 31h
Theory classes: 4h
Laboratory classes: 2h 30m
Guided activities: 2h
Self study: 22h 30m
UNIT 3. CRITERIA FOR CLASSIFICATION OF ASSETS IN BUILDING

Description:
Identify the most representative type of assets of the building.
Establish conservation, durability and vulnerability criteria.
Determine and apply risk indicators.
Determine the useful life of the real-state assets.

Related activities:
Classes of theoretical explanation.
Activity 3. Strategic framework for temporize the useful life of an asset.

Full-or-part-time: 31h
Theory classes: 4h
Practical classes: 2h 30m
Guided activities: 2h
Self study : 22h 30m

SUBJECT 4. ANALYSIS OF THE SERVICES ASSOCIATED TO THE ACTIVITY

Description:
Classify types of services.
Identify necessities of services associated to the use and the user.
Determine reliability criterias in the services.
Application of management systems of the information.

Related activities:
Classes of theoretical explanation.
Activity 4: Dashboard for the management of services.
Activity 5: Exposition of the course work.

Full-or-part-time: 32h
Theory classes: 5h 30m
Laboratory classes: 2h 30m
Guided activities: 1h 30m
Self study : 22h 30m

GRADING SYSTEM
Activities: 100%
- Activity 1: 20%
- Activity 2: 20%
- Activity 3: 20%
- Activity 4: 20%
- Activity 5: 20%

EXAMINATION RULES.
The activities will be developed by means of a practical case, individually or in groups.
BIBLIOGRAPHY

Basic: