



Course guide

290193 - CRITER14 - Rehabilitation Criteria and Techniques

Last modified: 05/07/2024

Unit in charge: Vallès School of Architecture
Teaching unit: 753 - TA - Department of Architectural Technology.
Degree: DEGREE IN ARCHITECTURE STUDIES (Syllabus 2014). (Optional subject).
Academic year: 2024 **ECTS Credits:** 4.5 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: MANUEL GONZALEZ SOLANES

Others: MONTSERRAT CUCURELLA-JORBA

PRIOR SKILLS

Have taken, or been enrolled in, the subject of Intervention in the Built Park

TEACHING METHODOLOGY

Based on specific sessions, concrete examples, visits to interventions, selected readings and debates - among other methodologies - the aim is to raise awareness of the field of architectural rehabilitation.

LEARNING OBJECTIVES OF THE SUBJECT

1. Learn to analyze pre-existence: structure, construction systems, facilities, etc.
2. Relate and incorporate rehabilitation as an inherent part of contemporary architecture.
3. Know the construction processes of execution justifying the most appropriate intervention.
4. Learn to "manipulate" and work with the techniques and materials that are part of it.
5. Evaluate and analyze the cost estimate; understood as a direct cause of being able to approach the project and the subsequent intervention.



CONTENTS

Criteria and rehabilitation techniques

Description:

1 Types of architectural interventions in the built park.

Learn more about the different types of more recent actions and their constructive rationale. Explanation through practical examples of: rehabilitations; restaurants and others.

2 Diagnosis methodology.

Know the process for carrying out a diagnosis, how to carry it out, which documents are generated and which conclusions must be drawn from them.

Debate on the topic

3 The rehabilitation project.

Strategies, contents, definition of order and sections, work programs, budget guidance and others.

Debate on the topic

4 Visit to workshop / company applied to the contents.

5 Structure.

Learn more about structural injuries and possible intervention techniques and new construction systems. Explain an intervention project focused basically on these aspects. The tapia as an example.

Workshop exercise.

6 Enveloping.

Deepen the injuries of the envelope, both roofs and facades, and possible intervention techniques and constructive systems.

Explain an intervention project focused basically on these aspects.

Debate on the topic.

7 Vertical communications.

Learn more about ladder injuries and intervention techniques. Explain an intervention project focused basically on these aspects.

The Catalan turn as an example.

Debate on the topic.

8 Site visit applied to the contents.

Debate on the topic

9 Internal interventions.

Deepen the injuries of the coatings and the possible intervention techniques and new constructive systems. Explain an intervention project focused basically on these aspects.

Workshop exercise.

10 Recovery of materials + example recovery works.

Deepen the possibility of recovering materials in a work: strategies and processes to follow to carry it out. Explain an intervention project focused basically on these aspects.

Debate on the topic.

11 Asset interventions.

Learn more about interventions in heritage-protected buildings: learn how to approach the project, the criteria and intervention techniques. Explain an intervention project focused basically on these aspects.

Debate on the topic.

12 Visit to a recently renovated building

Debate on the topic

Full-or-part-time: 7h 50m

Laboratory classes: 7h 30m

Self study : 0h 20m



GRADING SYSTEM

The monitoring of the classes and the delivery of the material is essential, in accordance with:

Debate and participation (30%)

Based on the topics discussed during the theoretical session and/or by providing new material, a participatory debate will be held between all the students where new questions will be raised.

Reading and opinion (30%)

Short texts related to the content of the subject will be provided which the student will have to read to later present a personal opinion.

Workshop exercise (40%)

One or two exercises in the analysis and development of architectural intervention will be carried out

BIBLIOGRAPHY

Basic:

- Curso de Patología : conservación y restauración de edificios. 1995: Colegio Oficial de Arquitectos de Madrid, Madrid. ISBN 9788477400806.
- Muñoz, Olga, ed. Arquitectura tradicional : tècniques constructives. Girona: GRETA Grup de Recuperació i Estudi de la Tradició Arquitectònica, 2016. ISBN 9788494527913.
- Brufau i Niubó, Robert. Rehabilitar con acero. Madrid: Asociación para la Promoción Técnica del Acero, 2010. ISBN 9788469230596.
- Tejela Juez J.; Navas Delgado, D.; Machín Hamalainen, C. Rehabilitación, mantenimiento y conservación de fachadas. Madrid: Tornapunta : Fundación Laboral de la Construcción, 2010. ISBN 9788492686865.
- Tejela Juez J.; Navas Delgado, D.; Machín Hamalainen, C. Rehabilitación, mantenimiento y conservación de estructuras. Madrid: Tornapunta : Fundación Laboral de la Construcción, 2011. ISBN 9788415205364.
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- Manuals de diagnosi (9 volums). Col·legi Oficial de Aparelladors i Arquitectes Tècnics de Barcelona,
- Vegas, F.; Mileto, C. Aprendiendo a restaurar : un manual de restauración de la arquitectura tradicional de la Comunidad Valenciana. València: Generalitat Valenciana, Conselleria de Medi Ambient, Aigua, Urbanisme i Habitatge, 2011. ISBN 9788486828936.
- Llibres gratuïts PDF [on line]. Barcelona: Institut de Tecnologia de la Construcció de Catalunya, [Consultation: 19/09/2024]. Available on: <https://fr.itec.cat/serveis/lilibrespdf/>.
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- Mañà i Reixach, F. Estructures 1 : Tècniques de recalçament dels fonaments. Barcelona: Institut de Tecnologia de la Construcció de Catalunya, 1990. ISBN 8478539689.
- Bellmunt Ribas, Rafael. Fichas de rehabilitación [on line]. 2a. Barcelona: Institut de Tecnologia de la Construcció de Catalunya, 1990 [Consultation: 11/10/2022]. Available on: https://itec.es/servicios/librospdf/pdfs/Fichas%20de%20rehabilitaci%C3%B3n_ITeC_1990.pdf. ISBN 8485954130.