SUBJECT TEACHING GUIDE

710 - Specialised Seminar II

Master's Degree in Integrity and Durability of Materials, Components and Structures

Academic year 2025-2026

1. IDENTIFYING DATA					
Degree	Master's Degree in Integrity and Durability of Materials, Components and Structures			Type and Year	Compulsory. Year 1
Faculty	School of civil Engineering				
Discipline					
Course unit title and code	710 - Specialised Seminar II				
Number of ECTS credits allocated	4	Term		Semester based (2)	
Web	http://www.ladicim.unican.es/				
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. CIENCIA E INGENIERIA DEL TERRENO Y DE LOS MATERIALES
Name of lecturer	ROBERTO LACALLE CALDERON
E-mail	roberto.lacalle@unican.es
Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 1. ADMINISTRACION DEL DPTO. (1054)
Other lecturers	BORJA ARROYO MARTINEZ

3.1 LEARNING OUTCOMES

- The development of this subject, which is part of the Specialized Module, is specified in the learning outcomes (LO) listed below:

  Disciplinary Knowledge (Knowing)

  • To understand the contents developed in this module.

  In this case, the competencies to be acquired will logically depend on the specific subject being taught, and since this may vary, it is not possible to define them precisely in this document.

  Professional Knowledge (Knowing how to do)

  • Acquisition of the skills and work methodology specific to laboratory practice in the subjects taught.
  • Handling scientific equipment used in these subjects in order to design specific tests or experiments and to interpret the results obtained.
  • Writing a concise scientific paper and presenting it orally with clarity.

4. OBJECTIVES

The course "Specialized Seminar II" will focus on the development of advanced topics related to structural integrity, including specialized subjects, cutting-edge research areas, and newly applied professional topics. These will be developed and taught by professors who are experts in the respective fields.

In order to ensure the participation of the most knowledgeable national and international researchers/professionals in each of the topics selected by the Master's Program Monitoring Committee—based on proposals from the Academic Committees of the participating universities—funding from the Ministry’s faculty mobility programs will be used. If such funding is not granted, the associated costs will be covered by the program’s own resources.

These seminars will be held on a rotating basis at the participating universities. As a result, students will need to travel in order to attend specific seminar sessions (Ministry funding will also be sought to support student mobility). In any case, to minimize the cost of this activity, the in-person component of each seminar will, as far as possible, be concentrated into a short period of time.

If no funding is available to cover student travel expenses, the seminar sessions will be distributed among the participating universities, and the same online teaching system used for the rest of the Master’s lectures will be employed.

It is also planned to use part of this seminar to carry out specific practical assignments that complement the practical component of the course Numerical Simulation. For example, students may work on specific modeling exercises (crack growth, material models, etc.). Additional practical components from any other subject in the Master’s program may also be included, if considered necessary.

Another activity foreseen is to offer Master’s students an initial introduction to doctoral studies. To that end, the current research projects of the group will be presented. These additional activities may differ among the participating universities, in order to reflect the specialization and specific interests of the faculty involved in the Master’s program at each institution.

6. SUBJECT PROGRAM

CONTENTS	
1	The seminars will be delivered by renowned specialists in their respective fields. The lecture sessions will consist of oral presentations by the instructor covering the general content of the subjects, with the necessary materials made available to students to facilitate their understanding. Problems, assignments, or practical case studies may also be proposed, which students will solve under the direct supervision of the instructor. In this case, the distribution of the course content, as has been done for the other subjects in the Master's program, is not provided, nor is the allocation of time across different teaching modalities, as this will depend on each of the professors participating in the Seminar.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Description Seminar Assessment	Others	No	Yes	50,00
Description Class Attendance	Others	No	No	50,00
TOTAL				100,00

Observations

Given the specific nature of this Advanced Seminar, it is not possible to determine in advance the exact method of assessment. Several options are being considered, such as a short written exam consisting of brief questions at the end of the lectures (e.g., on the final day of class), the completion of exercises or specific assignments related to the topics covered, as well as the evaluation of the student's participation in the regular development of the classes.

Observations for part-time students

In the case of part-time students, they may undergo a single assessment process, in accordance with the regulations of the University of Cantabria (UC). Given the nature of this course, which is based on attendance at a series of technical seminars, the assessment methodology would be as follows:

• The student must attend the seminars associated with the course. The dates of these seminars will be communicated well in advance.
• Subsequently, on a date within the official UC examination period, the student must pass a single exam related to the content of the various presentations. The exam date will be agreed upon with the student in order to facilitate their participation.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Como material fundamental del curso se utilizará un texto o apuntes elaborados por el profesor o profesores que impartan los contenidos de los diferentes temas de la asignatura. También se podrá hacer uso de un conjunto de ejercicios o problemas disponibles con sus soluciones, parte de los cuales se desarrollarán o serán planteados en los seminarios y otra parte deberá ser resuelta a lo largo del curso por los estudiantes y formará parte de su trabajo individual.