SUBJECT TEACHING GUIDE

315 - Models and real-time design tools

Master's Degree in computing engineering

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Master's Degree in computing engineering			Type and Year	Optional. Year 1
Faculty	Faculty of Sciences				
Discipline	Optional Subjects				
Course unit title and code	315 - Models and real-time design tools				
Number of ECTS credits allocated	3	Term		Semester based (2)	
Web	http://www.istr.unican.es/asignaturas/mhdtr				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERÍA INFORMÁTICA Y ELECTRÓNICA
Name of lecturer	JOSE JAVIER GUTIERREZ GARCIA
E-mail	josejavier.gutierrez@unican.es
Office	Facultad de Ciencias. Planta: + 3. DESPACHO DE PROFESORES (3061)
Other lecturers	

3.1 LEARNING OUTCOMES

- To know techniques for modeling the specifications and the temporal behavior of real-time systems, and to know how to apply schedulability analysis techniques to determine whether a system will be able to meet its timing requirements.

4. OBJECTIVES

To train students to model the specifications and the temporal behavior of real-time systems, and to apply schedulability analysis techniques to determine whether a system will be able to meet its timing requirements.

6. COURSE ORGANIZATION

CONTENTS	
1	Modeling and specification of real-time systems.
2	Schedulability analysis. Schedulability analysis tools.
3	Priority assignment.
4	Specification and modeling of real-time use cases.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Continuous evaluation	Laboratory evaluation	Yes	Yes	100,00
TOTAL				100,00

Observations

Exam at the laboratory for the extraordinary period.

Observations for part-time students

Part-time students, who cannot follow the practices and continuous evaluation proposed, will be evaluated by equivalent tests to those established for the extraordinary period.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- M.H. Klein, T. Ralya, B. Pollak, R. Obenza, y M. González Harbour. “A practitioner’s Handbook for Real-Time Analysis”.Kluwer Academic Pub., 1993.
- J.S.W.Liu. “Real Time Systems”. Prentice Hall, 2000.
- MAST web page: http://mast.unican.es/
- ISTR publications page: http://www.istr.unican.es/publications.html