



## Teaching Guide

Identifying Data					2021/22
<b>Subject (*)</b>	Modelos Numéricos de Hidráulica e Contaminación de Medios Porosos		<b>Code</b>	632508010	
<b>Study programme</b>	Mestrado Universitario en Investigación en Enxeñaría Civil (2013)				
Descriptors					
<b>Cycle</b>	<b>Period</b>	<b>Year</b>	<b>Type</b>	<b>Credits</b>	
Official Master's Degree	Yearly	First	Optional	0	
<b>Language</b>	Spanish				
<b>Teaching method</b>	Face-to-face				
<b>Prerequisites</b>					
<b>Department</b>	Enxeñaría Civil				
<b>Coordinador</b>		<b>E-mail</b>			
<b>Lecturers</b>		<b>E-mail</b>			
<b>Web</b>					
<b>General description</b>	Es un curso que proporciona una formación detallada sobre el proceso de modelización numérica en Ingeniería del Agua y del Terreno cubriendo todos los aspectos que intervienen, desde la generación de modelos conceptuales, la estimación de parámetros, la utilización y desarrollo de métodos numéricos (diferencias finitas y elementos finitos), la calibración y la evaluación de las incertidumbres. Se presta especial énfasis a las aplicaciones los modelos de flujo de agua y transporte de solutos en medios porosos en el ámbito de la Ingeniería Civil.				
<b>Contingency plan</b>	<ol style="list-style-type: none"> <li>1. Modifications to the contents</li> <li>2. Methodologies <ul style="list-style-type: none"> <li>*Teaching methodologies that are maintained</li> <li>*Teaching methodologies that are modified</li> </ul> </li> <li>3. Mechanisms for personalized attention to students</li> <li>4. Modifications in the evaluation <ul style="list-style-type: none"> <li>*Evaluation observations:</li> </ul> </li> <li>5. Modifications to the bibliography or webgraphy</li> </ol>				

### Study programme competences / results

Code	Study programme competences / results

### Learning outcomes

Learning outcomes	Study programme competences / results

### Contents

Topic	Sub-topic



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Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student's personal work hours	Total hours
Oral presentation		5	1.5	6.5
Supervised projects		12	2	14
Collaborative learning		28	2	30
Personalized attention		0		0

(\*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
Methodologies	Description
Oral presentation	
Supervised projects	
Collaborative learning	

Personalized attention	
Methodologies	Description
Collaborative learning	
Oral presentation	
Supervised projects	

Assessment			
Methodologies	Competencies / Results	Description	Qualification
Collaborative learning			50
Oral presentation			10
Supervised projects			40

Assessment comments

Sources of information	
Basic	
Complementary	- Domenico P. y F. Schwartz: (1990). Physical and Chemical Hydrogeology. - de Marsily, G. (1987). Quantitative Hydrogeology. Academic Press. San Diego.

Recommendations	
Subjects that it is recommended to have taken before	
Subjects that are recommended to be taken simultaneously	
Xeoestatística Aplicada e Modelos Hidrolóxicos /632508009	
Almacenamiento Xeolóxico Profundo de Residuos Radiactivos de Alta Actividade/632508011	
Subjects that continue the syllabus	
Other comments	



(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.