



## 1. General information

**Course:** ELEMENTS OF PROBABILITY AND STATISTICS  
**Type:** BASIC  
**Degree:** 423 - UNDERGRADUATE DEGREE IN MATHEMATICS  
**Center:** 603 - E.T.S. CIVIL ENGINEERS OF CR  
**Year:** 1

**Main language:** Spanish  
**Use of additional languages:**  
**Web site:**

**Code:** 38508  
**ECTS credits:** 6  
**Academic year:** 2023-24  
**Group(s):** 20  
**Duration:** C2  
**Second language:** English  
**English Friendly:** Y  
**Bilingual:** N

**Lecturer:** IRENE GARCIA CAMACHA GUTIERREZ - Group(s): 20

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## 2. Pre-Requisites

Not established

## 3. Justification in the curriculum, relation to other subjects and to the profession

Not established

## 4. Degree competences achieved in this course

## Course competences

Code	Description
INFO-2023	

## 5. Objectives or Learning Outcomes

## Course learning outcomes

Description

## Additional outcomes

## 6. Units / Contents

**Unit 1:**  
**Unit 2:**  
**Unit 3:**  
**Unit 4:**  
**Unit 5:**

## 7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	INFO-2023	0.92	23	Y	N	
Class Attendance (practical) [ON-SITE]	Project/Problem Based Learning (PBL)	INFO-2023	0.8	20	Y	Y	
Laboratory practice or sessions [ON-SITE]	Combination of methods	INFO-2023	0.52	13	Y	Y	
Writing of reports or projects [OFF-SITE]	Combination of methods	INFO-2023	1.2	30	Y	Y	
Study and Exam Preparation [OFF-SITE]	Combination of methods	INFO-2023	2.4	60	Y	N	
Progress test [ON-SITE]	Problem solving and exercises	INFO-2023	0.08	2	Y	Y	
Final test [ON-SITE]	Assessment tests	INFO-2023	0.08	2	Y	N	
<b>Total:</b>			<b>6</b>	<b>150</b>			
<b>Total credits of in-class work: 2.4</b>			<b>Total class time hours: 60</b>				
<b>Total credits of out of class work: 3.6</b>			<b>Total hours of out of class work: 90</b>				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System			
Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Final test	70.00%	100.00%	
Laboratory sessions	20.00%	0.00%	
Assessment of active participation	10.00%	0.00%	
<b>Total:</b>	<b>100.00%</b>	<b>100.00%</b>	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
<b>Hours</b>	<b>hours</b>
Progress test [PRESENCIAL][Problem solving and exercises]	2
Final test [PRESENCIAL][Assessment tests]	2
<b>Unit 1 (de 5):</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	4
Laboratory practice or sessions [PRESENCIAL][Combination of methods]	3
Writing of reports or projects [AUTÓNOMA][Combination of methods]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	10
<b>Unit 2 (de 5):</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	4
Laboratory practice or sessions [PRESENCIAL][Combination of methods]	1
Writing of reports or projects [AUTÓNOMA][Combination of methods]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	5
<b>Unit 3 (de 5):</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	4
Laboratory practice or sessions [PRESENCIAL][Combination of methods]	2
Writing of reports or projects [AUTÓNOMA][Combination of methods]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	15
<b>Unit 4 (de 5):</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	7
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	4
Laboratory practice or sessions [PRESENCIAL][Combination of methods]	4
Writing of reports or projects [AUTÓNOMA][Combination of methods]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	20
<b>Unit 5 (de 5):</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	4
Laboratory practice or sessions [PRESENCIAL][Combination of methods]	3
Writing of reports or projects [AUTÓNOMA][Combination of methods]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	10
<b>Global activity</b>	
<b>Activities</b>	<b>hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	23
Final test [PRESENCIAL][Assessment tests]	2
Laboratory practice or sessions [PRESENCIAL][Combination of methods]	13
Progress test [PRESENCIAL][Problem solving and exercises]	2
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	20
Writing of reports or projects [AUTÓNOMA][Combination of methods]	30
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	60
<b>Total horas: 150</b>	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Novo Sanjurjo, V. J.	Problemas de Cálculo de Probabilidades y Estadística. Cuadernos de la UNED	UNED	Madrid	978-8436229578	1993	

Grimmet, R. y Stirzaker, S.	Probability and Random Processes	Oxford Univ. press.	New York	978-0198847595	2020
Sarrión, M.D.	Estadística Descriptiva	Mc Graw Hill	Madrid	978-8448183318	2013
Ash., R. B.	Basic Probability Theory	Dover Books	New York	978-0486466286	2008
	<a href="https://faculty.math.illinois.edu/~r-ash/BPT/BPT.pdf">https://faculty.math.illinois.edu/~r-ash/BPT/BPT.pdf</a>				
Quesada, V. y García, A.	Lecciones de cálculo de probabilidades	Díaz de Santos	Málaga	978-8486251840	2008