DEGREE CURRICULUM

PROCESSING INFORMATION, CHANCE AND PROBABILITY

Coordination: ESTRADA ROCA, MA ASSUMPTA

Academic year 2022-23

PROCESSING INFORMATION, CHANCE AND PROBABI... 2022-23

Subject's general information

<table>
<tr><td>Subject name</td><td>PROCESSING INFORMATION, CHANCE AND PROBABILITY</td></tr>
<tr><td>Code</td><td>100989</td></tr>
<tr><td>Semester</td><td>2nd Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
<table>
<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Bachelor's Degree in Primary Training</td><td>3</td><td>COMPULSORY</td><td>Attendance-based</td></tr>
<tr><td>Double bachelor's degree: Degree in Pre-school Education and Degree in Primary Training</td><td>4</td><td>COMPULSORY</td><td>Attendance-based</td></tr>
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</td></tr>
<tr><td>Course number of credits (ECTS)</td><td>6</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
<table>
<tr><th>Activity type</th><td>PRAULA</td><td>TEORIA</td></tr>
<tr><th>Number of credits</th><td>1.8</td><td>4.2</td></tr>
<tr><th>Number of groups</th><td>4</td><td>4</td></tr>
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<tr><td>Coordination</td><td>ESTRADA ROCA, MA ASSUMPTA</td></tr>
<tr><td>Department</td><td>MATHEMATICS</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
<tr><td>Language</td><td>Catalan, English</td></tr>
<tr><td>Distribution of credits</td><td>Credits Hours Total hours Group Medium group
6 25 150 42 18

% of total hours 70% 30%

The Dual group has the hours adapted according to the dedication to the Primary school</td></tr>
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Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
CAPDEVILA MARQUES, CARLES	carles.capdevila@udl.cat	3	contact by email
COMAS RODRIGUEZ, CARLOS	carles.comas@udl.cat	9	contact by email
ESTRADA ROCA, MA ASSUMPTA	assumpta.estrada@udl.cat	12	contact by email

Learning objectives

- Know the school curriculum of mathematics
- Know and apply mathematical and didactic aspects of information processing, chance and probability.
- Analyze reasoning and communicate mathematical proposals of information processing, chance and probability.
- Pose and solve problems of information processing, chance and probability, linked to everyday life.
- Acquire and value didactic knowledge about mathematics in the scientific and social world
- Effectively address the reading and critical commentary of texts related to the teaching-learning of statistics and probability.
- Manage appropriate information and use it in the design and assessment of learning units
- Critically incorporate educational and technological innovations in the primary education classroom, depending on the social environment.
- Cooperatively solve content study and school learning tasks.

Competences

Basic

CB1. Possess and understand knowledge in an area of study -Education- that starts from the base of general secondary education, and is usually found at a level that, while supported by advanced textbooks, also includes some aspects that they involve knowledge from the avant-garde
of his field of study.
CB3. Gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant issues of a social, scientific or ethical nature.
Generals
CG5. Develop the ability to critically analyze and reflect on the need to eliminate all forms of discrimination, direct or indirect, in particular racial discrimination, discrimination against women, sexual orientation or disability.
CG6. Assume the commitment of personal and professional development with oneself and the community. Adapt learning proposals to the most significant cultural evolutions.
Specific
CE1. To know the curricular areas of Primary Education, the interdisciplinary relationship between them, the evaluation criteria and the body of didactic knowledge around the respective teaching and learning procedures.
CE2. Design, plan and evaluate teaching and learning processes, both individually and in collaboration with other teachers and professionals at the center.
Transversal
CT5: Apply essential notions of scientific thought.

Gender perspective in teaching.

Basic actions

• In the guide and teaching material and in the classroom, make sure that the language is inclusive and not sexist.

• In teaching materials, make sure that the images do not perpetuate gender stereotypes.

• In the teaching material, make sure that the examples and exercises counter gender stereotypes.

• In the teaching material, make sure that the context of the examples and the exercises cover various topics.

• As far as possible, include statements with social and / or gender relevance.

More advanced actions

• In projects, promote the study of some aspect of social and / or gender relevance.

• Explicitly emphasize the social and / or gender relevance in the activities (projects, cases, practices).

• Contextualize the statements of the exams in order to highlight the social and / or gender relevance of the subject.

• Incorporate the variables ‘gender’ and ‘sex’ in the analysis (statistical analysis, solution design, etc.).

• Incorporate in the Teaching Guide objectives related to social and / or gender relevance.

Subject contents

- Statistics and their applications
- Frequencies, tables and graphs.
- Measures of central tendency and dispersion.
- Regression and linear correlation.
- Didactics of Statistics in Primary Education
- Chance and probability
- Probability measurement
- Probability Didactics in Primary Education.
- Statistics and chance in primary education
- Teaching materials and resources in the teaching of Statistics and Probability

Methodology

Lecture group class	30 hours
Classroom practices in small group	20 hours
Seminars	8 hours
Tutoring in small group or individual	2 hours

The Dual group has time adaptation

Development plan

It will present the first day of class

Evaluation

Assessment activities	% in the final grade	O/V	Minimum qualification to weigh
Examination of theoretical contents of statistics and their didactics	35%	mandatory	4 points out of 10
Examination of theoretical probability contents and their didactics	35%	mandatory	4 points out of 10
Practical Sessions.	20%	mandatory	4 points out of 10
Elaboration and exhibition of project and / or poster	10%	compulsory attendance	4 points out of 10

% O / V35% mandatory 4 points out of 10 Examination of theoretical probability contents and their didactics 35% mandatory 4 points out of 10 Preparation and presentation of a program (group work) 20% mandatory 4 points out of 10 Practical Sessions. Elaboration and exhibition of project and / or poster 10% compulsory attendance 4 points out of 10

The final grade of the subject is the result of the weighted average of the activities evaluated according to the criteria listed in the table. To pass it, this grade must be 5.

There will be a resit exam for those students who do not get the minimum grade in the theoretical content exams. Retrieval will be from one of the two content blocks, or both; depending on the qualifications previously obtained. In this case the final grade will never exceed 6.

The exams will be theoretical and problematic, and depending on the health situation it may be face-to-face, or virtual (using CV tools).

The alternative assessment will consist of taking both tests (50% Statistics exam and 50% Probability exam) and you will need to get a 4 to be able to compensate.

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Peña, D i Romo, J (1997) Introducción a la Estadística para las Ciencias Sociales. McGraw-Hill.

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