

# DEGREE CURRICULUM PROCESSING INFORMATION, CHANCE AND PROBABILITY 

Coordination: ESTRADA ROCA, MA ASSUMPTA
Academic year 2021-22

Subject's general information


PROCESSING INFORMATION, CHANCE AND PROBABILITY
100989
2nd Q(SEMESTER) CONTINUED EVALUATION

| Degree | Course | Character | Modality |
| :--- | :--- | :--- | :--- |
| Bachelor's Degree in Primary <br> Training | 3 | COMPULSORY | Attendance- <br> based |
| Double bachelor's degree: <br> Degree in Pre-school <br> Education and Degree in <br> Primary Training | 4 | COMPULSORY | Attendance- <br> based |



6

| Activity <br> type | PRAULA | TEORIA |
| :---: | :---: | :---: |
| Number of <br> credits | 1.8 | 4.2 |
| Number of <br> groups | 4 | 4 |

Coordination
ESTRADA ROCA, MA ASSUMPTA
Department
Important information
on data processing
Language
MATHEMATICS
Consult this link for more information.

Distribution of credits
Catalan, English
Credits Hours Total hours Group Medium group
6251504218
\% of total hours $70 \% 30 \%$
The Dual group has the hours adapted according to the dedication to the Primary
school

| Teaching staff | E-mail addresses | Credits <br> taught by <br> teacher | Office and hour of attention |
| :--- | :--- | :--- | :--- |
| CAPDEVILA MARQUÉS, 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.

## 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 <br> weigh |
| :--- | :--- | :--- | :--- |
| Examination of theoretical contents of <br> statistics and their didactics | $35 \%$ | mandatory | 4 points out of 10 |
| Examination of theoretical probability <br> 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 <br> and / or poster | $10 \%$ | compulsory <br> 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

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.

## Bibliography

Batanero,C.; y Godino,J...(2003).Matemáticas y su didáctica para maestros: Estocástica y su didàctica para maestros.. http//www.ugr.es/local/jgodino/edumat-maestros

Bisquerra, R. (1989). Métodos de investigación educativa. P.P.U. Barcelona.
Chamorro, M.C. (2003) Didáctica de las matemáticas para primaria .Madrid. Prentice Hall
Etxeberria,J., y Tejedor,F. (2005) Análisis descriptivo de datos en educación La Muralla
Farré,M. (2005) Estadística: un curs introductori per a estudiants de ciències socials i humanes Publicacións de la Universitat Autònoma de Barcelona.

Generalitat de Catalunya, Departament d'Ensenyament (2007) Currículum d' Educació Primària . Decret 142/2007 DOGC núm 4915

Gil Flores, J. (1996) Problemas de Estadística bàsica aplicados a las ciencias de la educación .Kronos.
Godino,J: Batanero,C. y Font, V.(2003).Matemáticas y su didáctica para maestros: Fundamentos de la enseñanza y el aprendizaje de las matemáticas para maestros.. http//www.ugr.es/local/jgodino/edumatmaestros/

Olarrea,J., y Cordero,M. (2007). Estadística : 45 problemas útiles. Garcia-Maroto.
Peña, D i Romo, J (1997) Introducción a la Estadística para las Ciencias Sociales. McGraw-Hill.
Peralta et al. (2007) Estadística : problemas resueltos. Pirámide

Pérez, C (2002) Estadística aplicada a través de Excel. Prentice-Hall
Tomeo,V., y Uña, I.(2003). Lecciones de estadística descriptiva : curso teórico-práctico. Thomson. http://www.edu365.com/aulanet/intermates/
http://nlvm.usu.edu/en/nav/frames asid 117 g 1 t 5.html
http://www.ub.es/stat/docencia/Software/Statmedia/DemoStatm/AppletList/AppletListc1.htm

