DEGREE CURRICULUM

QUANTITATIVE TECHNIQUES AND METHODS

Coordination: FRAILE PEREZ DE MENDIGUREN, PEDRO

Academic year 2020-21

QUANTITATIVE TECHNIQUES AND METHODS 2020-21

Subject's general information

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<tr><td>Subject name</td><td>QUANTITATIVE TECHNIQUES AND METHODS</td></tr>
<tr><td>Code</td><td>101158</td></tr>
<tr><td>Semester</td><td>1st Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
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<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Bachelor's Degree in Geography</td><td>2</td><td>COMMON</td><td>Attendance-based</td></tr>
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<tr><td>Course number of credits (ECTS)</td><td>6</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
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<tr><th>Activity type</th><th>PRALAB</th><th>PRAULA</th><th>TEORIA</th></tr>
<tr><td>Number of credits</td><td>1</td><td>1</td><td>4</td></tr>
<tr><td>Number of groups</td><td>1</td><td>1</td><td>1</td></tr>
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<tr><td>Coordination</td><td>FRAILE PEREZ DE MENDIGUREN, PEDRO</td></tr>
<tr><td>Department</td><td>GEOGRAPHY AND SOCIOLOGY</td></tr>
<tr><td>Teaching load distribution between lectures and independent student work</td><td>60 contact hours (in the classroom or virtual) 90 hours of autonomous student work</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
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QUANTITATIVE TECHNIQUES AND METHODS 2020-21

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
FRAILE PEREZ DE MENDIGUREN, PEDRO	pedro.fraile@udl.cat	6	

Subject's extra information

See later sections.

Tutoring hours will be established to address individual problems in the monitoring of the subject

Learning objectives

O1. Understand the meaning of different types of variables and frequencies

O2. Understand the meaning and calculation of position measures

O3. Understand the meaning and calculation of dispersion and shape measurements

O4. Understand and manage time series O5. Understand and calculate regression lines, and measure their quality

O6. Management of index numbers and sampling

The learning outcomes should be as follows:

Mastery of the basic tools of descriptive statistics

Use of statistical sources: Catalan, Spanish, European, world

Ability to start a survey from start to finish

Use of some general graphic expression program (not cartographic)

Competences

CB2 Apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study

CB3 Ability to gather and interpret relevant data (normally within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues

CB4 To be able to transmit information, ideas, problems and solutions to a specialized and non-specialized public)

CB5 Know how to develop those learning skills necessary to undertake further studies with a high degree of autonomy

CE1 Employ the methods and techniques of analysis and interpretation of statistical sources

CE2 Acquire the vocabulary and professional tools of the geographer and the planning of the territory

CE5 Acquire the habits of search, analysis, synthesis and exposure of geographic information (writing reports)

CE8 Acquire the skills of quantitative methodologies

CE12 Learn the use of GIS software in its different functions: data entry, editing and management, spatial queries and analysis
CT3 Acquire training in the use of new technologies and information and communication technologies

Ability to apply statistical techniques to the resolution of geographical problems and, in genral proper to the CCSS

Subject contents

1. Changes in Geography and CCSS and statistics.

1.1. CCSS and quantitative methods.

1.2. Applications of statistics to Geography. Descriptive statistics.

2. The basics

2.1. Types of variables

2.2. Frequencies. Its meaning

3. Position measurements

3.1. Measures of central position

3.2 Non-central position measurements

4. Measures of dispersion and shape

4.1. Measures of dispersion.

4.2. Coefficients of asymmetry.

4.3 Concentration curve.

5. Time series

6. Regression lines

6.1. Method of least squares

6.2. Measures of the quality of the regression.

7. Indices and weights. Sampling

Methodology

The exposition of theory and the resolution of problems will be combined in a continuous way

In the event that some classes or student intervention are recorded, the following information will be taken into account:

Information on data protection in the audiovisual register

In accordance with current regulations on the protection of personal data, we inform you that:

- The organisation responsible for the recording and use of the image and voice is the University of Lleida - UdL (contact details of the representative: General Secretariat. Plaza Víctor Siurana, 1, 25003 Lleida; sg@udl.cat; contact details of the data protection officer: dpd@udl.cat).

- The recorded images and voices shall be used exclusively for teaching purposes.

- The recorded images and voices shall be saved and preserved until the end of the current academic year, and shall be destroyed in accordance with the terms and conditions specified in the regulations on the preservation and disposal of administrative documents of the UdL, and the documentary evaluation tables approved by the Generalitat de Catalunya (http://www.udl.cat/ca/serveis/arxiu/).

- The voices and images are considered necessary to teach this subject, and teaching is a right and a duty of the teaching staff of the Universities, which they must exercise under academic freedom, as provided for in article 33.2 of the Organic Law of Universities (Ley Orgánica de Universidades) 6/2001, of December 21. For this reason, the UdL does not need the consent of the students to register their voices and images with the sole and exclusive purpose of teaching in this particular subject.

- The UdL shall not transfer the data to third parties, except in the cases strictly provided for by the Law.

- The student can access their data; request correction, deletion or portability; object to its processing and request its limitation, as long as it is compatible with the purposes of teaching, by writing to dpd@udl.cat. You can also submit a complaint to the Catalan Data Protection Authority, via a mail to its website (https://seu.apd.cat) or other non-electronic means.

Development plan

1. Changes in Geography and CCSS and statistics. (3 hours)

2. The basics (7 hours)

3. Position measurements (10 hours)

4. Measures of dispersion and shape (10 hours)

5. Time series (10 hours)

6. Regression lines (10 hours)

7. Indices and weights. Sampling (10 hours)

Four Wednesdays will be dedicated to the exclusive realization of problems, two to the resolution of doubts and another two to the realization of computable exercises for the evaluation.

Evaluation

Exam 40%

Class participation 10%

Student portfolio (problems solved during the course) 25%

Problem solving in class 25%

Students who combine their degree with a full time job have the right to ask for alternative assessment within 5 days after the beginning of the semester. For information, please send an e-mail to academic@lletres.udl.cat or ask for information at the Faculty's office(Secretaria de la Facultat de Lletres).

Bibliography

Grupo Chadule: *Iniciación a los métodos estadísticos en Geografía*. Barcelona: Ariel, 1980.