COURSE DATA

DATA SUBJECT

Code: 35846
Name: Survey methods
Cycle: Undergraduate Studies
ECTS Credits: 4.5
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1313 - Degree in Business Management and Administration	Facultat d'Economia	4	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1313 - Degree in Business Management and Administration	Methodology of surveys	ELECTIVES

COORDINATION

MOLES MACHI MARIA CRUZ

SUMMARY

The objective of the course is to know the different sampling techniques in finite populations, focusing on the methodologies of sample design and inference. Two alternatives are considered: one based on random designs and the other based on overpopulation models.
The development of the topics is raised from the theoretical point of view and of application to the real context.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

It is recommended to have taken and passed the subjects of Basic Statistics and Introduction to Inference in the first and second year.

COMPETENCES / LEARNING OUTCOMES

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Be able to analyse and search for information from different sources.

Be able to apply analytical and mathematical methods for the analysis of economic and business problems.

Be able to carry out strategic diagnoses in complex and uncertain environments using the appropriate methodologies to resolve them.

Be able to define, solve and present complex problems systemically.

Be able to make decisions.

Be able to make decisions under certainty and uncertainty environments.

Be able to negotiate and reconcile interests effectively.

Be able to plan, organise, control and evaluate the implementation of business strategies.

Be able to relate the different elements that interact in the decisions of individuals.

Be able to solve problems.

Be able to transmit and communicate complex ideas and approaches to both specialised and lay audiences.

Be able to understand and use the different quantitative and qualitative methods to reason analytically, evaluate results and predict economic and financial parameters.

Be able to work in a team.

Demonstrate capacity for analysis and synthesis.

Demonstrate oral and written communication skills in the native language.

Have critical and self-critical capacity.

Have organisation and planning skills.

Know the basic techniques, methods and instruments linked to behaviour analysis.

DESCRIPTION OF CONTENTS

1. COMPREHENSIVE INVESTIGATIONS AND SAMPLING INVESTIGATIONS

1. Comprehensive investigations. Limitations of censuses
2. Sampling investigations
3. Advantages and disadvantages of sampling research
4. Sources of error
5. Applications

2. TARJET VARIABLES AND QUESTIONNAIRE

1. General concepts: universe, population and sample. Objectives of statistical inference.
2. Preparation and use of the questionnaire
3. Target variables and auxiliary variables
4. Applications

3. SIMPLE RANDOM DESIGN

1. Formalization
2. Estimation in simple random sample
3. Sampling error
4. Applications

4. STRATIFIED DESIGN

1. Formalization
2. Estimation and sampling error
3. Distribution of the sample among the strata
4. Applications

5. DESIGN BY STAGES

1. Formalization
2. Estimation and sampling error
3. Distribution of the sample among the strata
4. Applications

6. INDIRECT ESTIMATORS

1. Ratio and regression estimators
2. Properties and sampling error
3. Applications

7. NON-RANDOM SAMPLES AND OVERPOPULATION MODELS

1. Model formulation
2. Estimation and sampling error
3. Applications

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	22,50
Classroom practices	22,50
Total hours	**45,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**0,00**

TEACHING METHODOLOGY

A.1. Participative master lesson, to present the essential theoretical contents in the classroom.
A.2 Practical classes, related to problem solving, case studies, with application of techniques, use of appropriate computer programs, oral presentations, debates ..., individually and / or in teams.
A.3 Autonomous work supervised and based on reading and evaluating reports, carrying out exercises and / or projects individually and / or in a team.
A.4 Independent study of the student and performance of written and / or oral tests.

EVALUATION

The evaluation will consist of two parts: a continuous evaluation, developed throughout the course, and a final exam.

The continuous assessment of the student will be based both on practical activities, associated with the different sampling techniques, developed by the student during the course, and on their participation and involvement in the teaching-learning process BY THEIR NATURE, CONTINUOUS EVALUATION ACTIVITIES ARE **NOT RECOVERABLE**.

The final exam will consist of a battery of questions consisting of the resolution of methodological issues that arise in different applications in the real environment.

The final grade will be the weighted sum of the final exam grade and the continuous assessment grade.

The specific criteria and processes that will be used for the evaluation, as well as their specific weighting, will depend on the number of students finally enrolled and will be adequately advertised at the beginning of the course.

REFERENCES

- MURGUI, S. (2014) Investigación por muestreo estadístico. Repro Exprés Valencia.
- FERNANDEZ, F. y MAYOR, J. (1994) Muestreo en poblaciones finitas: curso básico. PPU Barcelona
- SARNDAL, C. SWENSSON, B y WRETMAN, J. (1991) Moled Assisted Survey Sampling. Springer-Verlag
- RUIZ, M. (2012) Exactitud de la inferencia en poblaciones finitas. Madrid.