UAB
Universitat Autònoma de Barcelona

Statistics Consultancy

Code: 104877
ECTS Credits: 6

2025/2026

Degree	Type	Year
Applied Statistics	OP	4

Contact

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Teaching groups languages

You can view this information at the end of this document.

Prerequisites

Informatics Tools for Statistics

Linear Models 1

Linear Models 2

Advanced Modelling

Unsupervised Learning

Machine Learning 1

Aprenentatge Automàtic 1

Objectives and Contextualisation

Develop skills necessary to carry out professional consultancy tasks in statistics.

Covering the different fields of statistical consultancy:

- Health Sciences
- Banking and insurance
- Sociological studies and surveys

Learning Outcomes

1. CM14 (Competence) Propose the statistical model needed to analyse data sets belonging to real studies.
2. KM17 (Knowledge) Recognise the statistical models for the analysis of data with different structures and complexities that frequently appear in different fields of application.
3. SM16 (Skill) Select appropriate sources of information for the statistical work.
4. SM17 (Skill) Discuss scientific articles in which the analysis of a study of the different areas of application is considered.
5. SM18 (Skill) Refine the information available for subsequent statistical processing.
6. SM19 (Skill) Analyse complex data, whether this is due to their characteristics or their size.

Content

Introduction

- Objective of the Statistical Consulting
- Areas of Consultancy and Needs
- Functions and responsibilities of the Statistical Consultant
- Work meetings
- Objectives according to scope
- Budget

Statistical Report

- Summary Graphics Analysis
- Methodology
- Validation
- Presentation of results

Productive programming with SAS and / or R

- Syntax files structure
- Implementation of Statistical Techniques
- Functions to reproduce code
- Production of results

Practical cases

- Reports
- Presentation and Review

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			

Practical cases	15	0.6	CM14, KM17, SM16, SM17, CM14
Practical sessions	30	1.2	CM14, KM17, SM16, SM17, CM14
Theory	30	1.2	CM14, KM17, SM16, SM17, SM18, SM19, CM14

The subject will follow the following methodology:

- Theoretical classes
- Practical software sessions
- Evaluation of practical cases

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral Presentation	40	35	1.4	CM14, KM17, SM16, SM18, SM19
Project 1	30	20	0.8	CM14, KM17, SM16, SM17
Project 2	30	20	0.8	CM14, KM17, SM16, SM17

The course will be assessed through the resolution of various practical cases, which will be carried out either in groups or individually.

For each of these projects, the following documentation must be submitted:

Initial proposal
Preliminary report
Final results report

Finally, the results of the practical cases must be presented publicly.

This course does not allow for the single assessment modality.

Bibliography

Cabrera, J.; McDougall A. (2002). Springer-Verlag New York.Statistical Consulting

Statistical Rules of Thumb - Gerald Van Belle - Wiley Series in Probability and Statistics

Common Errors in Statistics (and How to Avoid Them) - Good, Hardin - Wiley

SAS and R: Data Management, Statistical Analysis, and Graphics - Kleinman , Horton - Chapman and Hall

SAS for Mixed Models, Second Edition - Little et al - SAS Publishing

Software

SAS, R, Python, Latex, Markdown, RShiny

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(SEM) Seminars	1	Catalan	first semester	afternoon
(TE) Theory	1	Catalan	first semester	afternoon