Course unit English denomination	Statistical Consulting
SS	STAT-01/A, STAT-01/B, STAT-02/A, STAT-03/A, STAT-03/B
Teacher in charge (if defined)	• Emanuele Aliverti • Mariangela Guidolin
Teaching Hours	30
Number of ECTS credits allocated	5
Course period	03/2026-05/2026
Course delivery method	☒ In presence ☐ Remotely ☐ Blended
Language of instruction	English
Mandatory attendance	☒ Yes (100% minimum of presence, apart from exceptional absences that must be justify in advance) ☐ No
Course unit contents	Course Description

The course allows students to apply commonly encountered statistical methods in the consulting environment. Written and oral communication skills are emphasized (in order to both understand the clients' needs and present the results) and ethical aspects of consulting are introduced. The course provides students with an opportunity to gain practical experience in consulting through various projects with clients.

The course immerses students in real world consulting, exposing them to all aspects of statistical data analysis including understanding the applied context and its goals, data collection, data modeling, and presentation of the results. Through a consulting program inside and outside the University, students work with researchers and practitioners from a multitude of disciplines providing recommendations for statistical methodologies appropriate for their problems. Projects are also examined through the lens of ethics underlying data collection, model assumptions, analysis, reproducibility, and reporting of results.

Tentative course topics:

About consulting classes dedicated to the following topics
- Communication
- Asking Questions
- Managing a Session
- Dealing with Difficult Clients
- Research ethics
- Legal aspects, privacy and confidentiality - Consulting from Start to Finish

Practical sessions of consulting

Students, teachers, researchers and professionals from inside and outside the University are assigned a team of `student consultants', who hold an intake

meeting with the client and find out the details of their project and consulting request. Then, the consulting team presents the project to the class and the class discusses the problem and comes up with suggestions. The consulting team then reports the suggestions back to the client.

Learning goals	The overall objectives of the statistical consulting course are: - to provide doctoral students with practical consulting and communication skills, such as how to present results verbally and in a written report, and - how to work cooperatively with other researchers and/or practitioners
Teaching methods	• Lectures • Group homework • Student's written and oral presentations • Problem solving • Project work • Feedback • Assessment activities during the course • Develop collaborative and supportive peer relationships
Course on transversal, interdisciplinary, transdisciplinary skills	☒ Yes ☐ No
Available for PhD students from other courses	☐ Yes ☒ No
Prerequisites (not mandatory)	max 3750 caratteri
Examination methods (in applicable)	The evaluation of students' performance will be based on two key components: their active engagement throughout the course and the quality of their contributions to the case studies. Active participation includes involvement in class discussions, group work, and collaboration on consulting tasks. The case studies will serve as practical assessments, where students are expected to apply statistical methods to real-world problems, demonstrate critical thinking, and presentation skills.
Suggested readings	• Course material available from the instructors
Additional information	max 3750 caratteri