

Degree	Type	Year
Interactive Communication	OB	3

Contact

Name: Gemma Gómez Bernal

Email: gemma.gomez.bernal@uab.cat

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

Students should be familiar with spreadsheet software and eager to tinker with technology. Also, English will be required for some of the mandatory readings.

Objectives and Contextualisation

- Apply theoretical principles to analyze and visualize data.
- Plan and perform visual data analysis in accordance with communicative, scientific or management objectives.
- Select and apply different methods to collect, analyze and visualize data.
- Present and critically discuss different types of data visualizations.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Act within one's own area of knowledge, evaluating sex/gender-based inequalities.
- Distinguish between and apply the principal theories, conceptual frameworks and approaches regulating interactive communication.
- Introduce changes in the methods and processes of the field of knowledge to provide innovative responses to the needs and demands of society.
- Manage time efficiently and plan for short-, medium- and long-term tasks.
- Search for, select and rank any type of source and document that is useful for creating messages, academic papers, presentations, etc.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Communicate using language that is not sexist or discriminatory.

3. Cross-check information to establish its veracity, using evaluation criteria.
4. Distinguish the salient features in all types of documents within the subject.
5. Evaluate the impact of problems, prejudices and discrimination that could be included in actions and projects in the short or medium term in relation to certain people or groups.
6. Identify situations in which a change or improvement is needed.
7. Plan and conduct academic studies in the field of theory and practice of computer graphics and data visualisation.
8. Propose new methods or well-founded alternative solutions.
9. Propose projects and actions that are in accordance with the principles of ethical responsibility and respect for fundamental rights and obligations, diversity and democratic values.
10. Propose projects and actions that incorporate the gender perspective.
11. Recognise the communicative and aesthetic norms of data visualisation.
12. Submit course assignments on time, showing the individual and/or group planning involved.
13. Weigh up the risks and opportunities of both one's own and other people's proposals for improvement.

Content

- Fundamentals of visual data.
- Design and visual storytelling.
- Processing and analysis of different data types.
- Data visualization and analysis.
- Infographics, dashboards, reports and other forms of visualization.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Project exercises	22	0.88	3, 4, 7, 12, 11
Seminars	9	0.36	7, 11
Theory classes	15	0.6	3, 4, 7, 12, 11
Type: Supervised			
Follow-up tutorials	6	0.24	3, 4, 7, 12, 11
Type: Autonomous			
Study and data search	30	1.2	3, 4, 7
Work process	30	1.2	3, 4, 7, 12, 11

The subject is structured based on 3 teaching methodologies: Lectures, theoretical-practical seminars and the development of a data visualization project.

The master lessons have as their objective the transmission of the contents of the program.

The theoretical-practical seminars to link the theoretical concepts and their applications.

The project will consist of the analysis and visualization of a set of data and the creation of graphics and an infographic.

The detailed calendar and the content of the different sessions will be displayed on the day of the presentation of the subject and will also be posted on the virtual campus where students will be able to find the detailed description of the exercises and practices, as well as the various teaching materials and any information necessary for the appropriate monitoring of the subject.

Class attendance and participation in the sessions dedicated to the project and seminars is mandatory.

Note: The course content will be sensitive to issues related to gender perspective and the use of inclusive language.

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

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Project	30%	30	1.2	1, 2, 3, 4, 6, 7, 12, 8, 9, 10, 11, 5
Seminars	30%	6	0.24	1, 2, 3, 4, 6, 7, 13, 12, 8, 9, 10, 11, 5
Theory test	40%	2	0.08	1, 3, 4, 6, 13, 11

This subject can be passed on the basis of continuous assessment (AC).

There will be a written test (40%), a project (30%) and theoretical-practical seminars (30%).

To pass the subject you must pass the written test with a minimum grade of 4. There will be a written reassessment test.

The project is a mandatory delivery and does not give the option of re-evaluation.

The theoretical-practical seminars are mandatory and in case of absence, an alternative exercise will be required to be reassessed.

Plagiarism: In the event that the student commits any irregularity that could lead to a significant variation in the grade of an assessment act, this assessment act will be graded with 0, regardless of the disciplinary process that may be instituted. In the event that several irregularities occur in the evaluation acts of the same subject, the final grade for this subject will be 0.

This subject does not provide for the single assessment system.

Artificial intelligence: In this course, the use of Artificial Intelligence (AI) technologies is not permitted at any stage. Any assignment containing content generated by AI will be considered a breach of academic integrity and may result in a partial or total penalty to the assignment grade, or more serious sanctions in severe cases.

Bibliography

- Cairo, Alberto (2010). *El arte funcional: infografía i visualización de la información*. Alamut.
- Cairo, Alberto (2016). *The truthful art: Data, charts, and maps for communication*. New Riders.
- Gonstalla, Esther (2024). *Atlas of a Threatened Planet: 150 Infographics to Help Anyone Save the World*. Island Press.
- Knaflic, Cole Nussbaumer (2015). *Storytelling with data: A data visualization guide for business professionals*. John Wiley & Sons.
- Lupi, Giorgia, and Stefanie Posavec (2016). *Dear data*. Chronicle books.
- Mauldin, Sarah KC (2015). *Data visualizations and infographics*. Rowman & Littlefield.
- Rovira, Pere & Pascual, Víctor (2021). *Analítica visual. Cómo explorar, analizar y comunicar datos*. Anaya Multimedia.
- Sandell, Marybeth (2020). *Visualización de datos & Storytelling*. Barbara Covarrubias.

Additionally, supplementary reading will be provided as well as short articles that may be required for seminars.

Software

For the proper follow-up of the course, we will use the following software available at the Faculty:

- Affinity: Photo, Publisher, and Designer.
- Excel.
- PowerPoint.
- Tableau.

Additionally, some extra software may also be used occasionally.

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
(PLAB) Practical laboratories	61	Catalan	first semester	afternoon
(PLAB) Practical laboratories	62	Catalan	first semester	afternoon
(TE) Theory	6	Catalan	first semester	afternoon