Infographics and Data Visualisation

Code: 104733
ECTS Credits: 6

Degree	Type	Year	Semester
2503873 Interactive Communication	OB	3	1

Contact

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Use of Languages

Principal working language: catalan (cat)

Some groups entirely in English: No

Some groups entirely in Catalan: Yes

Some groups entirely in Spanish: No

Prerequisites

Previous computer knowledge for users.

Objectives and Contextualisation

- Learn how to transform data into powerful infographics with designs that speak for themselves.
- Define what data visualization is, what is its main objective and what are its main elements.
- See the different tools, offline and online.

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

Item 1: Concepts of design and visual communication

Item 2:Animation principles applied to infographics

Item 3:Infographics

Item 4:Data visualization

Methodology

The detailed calendar with the content of the different sessions will be available on the day of the presentation of the course.

The development of the course involves the realization of different types of activities:

a) Lectures. Theory that will be used to carry out the different exercises.

b) Laboratory practices. Learning different programs to perform the exercises. The objective is that the student performs the different practices.

c) Seminars: eines ICT. Practical reflection on its uses.

In case of change of teaching modality due to health reasons, the teaching staff will inform about the changes in the programming of the subject and in the teaching methodologies.

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Laboratory practices	24	0.96	3, 4, 7, 12, 11
Seminar: TIC tools	9	0.36	7, 11
Theory classes	15	0.6	3, 4, 7, 12, 11
Type: Supervised			
Follow-up tutorials	10	0.4	3, 4, 7, 12, 11
Type: Autonomous			

Study and data search	35	1.4	3, 4, 7
Work process	35	1.4	3, 4, 7, 12, 11

Assessment

This subject can be passed from the continuous assessment (AC). No exam is scheduled, if a test. There will be a total of five internships:

- Three practices with a weight of 50% of the grade.
- Theory test with a weight of 15% of the grade.
- Works with a weight of 30% of the grade.
- The remaining 5% corresponds to participation and tutorials. To pass the course, all the internships must be handed in and with a minimum grade of 4 to be able to do the average.

Note: Within the timetable set by the center or degree, 15 minutes of a class will be reserved for students to evaluate their professors and their courses or modules through questionnaires.
In case of not passing the subject, the teacher will decide the type of recovery.

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

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Delivery works	30%	6	0.24	1, 2, 3, 4, 6, 7, 13, 12, 8, 9, 10, 11, 5
Follow-up tutorials	5%	2	0.08	3, 4, 7, 12, 11
Practical work	50%	12	0.48	3, 4, 7, 12, 11
Theory test	15%	2	0.08	4, 11

Bibliography

- Alberto Cairo. (2008). *Infografía 2.0: Visualización interactiva de información en prensa*. Alamut.
- Alberto Cairo. (2011). *El arte funcional*: infografía i visualización de la información. Alamut.
- Fenwick, Berengueres i Sandell. (2020). *Visualización de Datos & Storytelling*. Bárbara Covarrubias.
- Shaoqiang Wang. (2017). *Infografía: Diseño y visualización de la información*. Promopress.
- Valentina D'Efilippo i James Ball. (2018). *La historia infográfica del mundo*.

Software

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

- Affinity: Photo, Publisher and Designer
- Davinci Resolve
- Excel
- Word
- Powwerpoint

- Flourish
- Tableau

It is possible to use private and online programs.