

| Degree programme          | Type | Course |
|---------------------------|------|--------|
| Interactive Communication | OB   | 3      |

## Contact lecturer

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## Prerequisites

Knowledge of interaction design and the creation of interactive audiovisual products. It is necessary that students have autonomy in the design of digital products. An understanding of English is necessary, since some readings and resources will be presented in this language.

## Group languages

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

## Objectives

Creation of products that meet the needs of end users with simplicity and usability as the basis. Study of methodologies, techniques and research models for the design and evaluation of final interactive products.

## Learning outcomes

1. Distinguish the salient features in all types of documents within the subject.
2. Cross-check information to establish its veracity, using evaluation criteria.
3. Submit course assignments on time, showing the individual and/or group planning involved.
4. Plan and conduct academic studies in the field of user-centred design.
5. Create interfaces that keep a balance between technically functional design and aesthetic taste.
6. Identify and choose aesthetic elements for interface design.
7. Recognise the key elements for designing an interface tailored to people's needs.
8. Identify situations in which a change or improvement is needed.
9. Propose new methods or well-founded alternative solutions.
10. 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.
11. Propose projects and actions that incorporate the gender perspective.
12. Communicate using language that is not sexist or discriminatory.
13. 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.
14. Analyse a situation and identify its points for improvement.
15. Weigh up the risks and opportunities of both one's own and other people's proposals for improvement.

## Contents

User Centered Design contents include:

- User experience

- User interface
- Resolution of end user needs in interactive environments
- Research methods and techniques in user perception and interaction

## Learning activities and methodology

| Title               | Hours | ECTS | Learning outcomes |
|---------------------|-------|------|-------------------|
| Lessons             | 15    | 0.6  | 1, 2, 4           |
| Laboratory work     | 21    | 0.84 | 3, 4, 5, 7        |
| Practical exercises | 84    | 3.36 | 4, 5, 7           |
| Seminars            | 9     | 0.36 | 1, 2, 3           |
| Tutoring            | 9     | 0.36 | 3, 4, 7           |

Content presentation classes, seminars with specific cases and practical projects will be held. Students will carry out interactive projects that include design analysis.

The calendar will be available on the first day of class. Students will find all information on the Virtual Campus: the description of the activities, teaching materials, and any necessary information for the proper follow-up of the subject.

This subject is in Spanish.

This subject doesn't provide for the single assessment system.

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               | Weight | Hours | ECTS | Learning outcomes            |
|---------------------|--------|-------|------|------------------------------|
| Seminars            | 20%    | 6     | 0.24 | 1, 2, 3, 7, 11, 12, 14, 15   |
| Exam                | 30%    | 3     | 0.12 | 1, 2, 4, 7, 8, 12, 14        |
| Practical exercises | 50%    | 3     | 0.12 | 3, 4, 5, 6, 7, 9, 10, 12, 13 |

The teaching methodology and the proposed evaluation may undergo some modification depending on the restrictions on attendance that the health authorities impose.

Evaluation activities description:

- Exam (30%)
- Seminars (20%)
- Practical exercises (50%)

It is mandatory to pass the exam and the practical exercises to pass the subject.

Students will be entitled to the revaluation of the subject. They should present a minimum of activities that

equals two-thirds of the total grading. To have access to revaluation, the previous grades should be 3.5. The activities that are excluded from the revaluation process are seminars.

Misspellings will be penalized with -0.5 points each.

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.

This course does not provide for a single-assessment system.

In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of assignment development, provided that the final outcome demonstrates a significant contribution from the student in terms of analysis and personal reflection. Students must clearly identify any content generated using AI, specify the tools employed, and include a critical reflection on how these technologies have influenced both the process and the final result of the assignment. Failure to disclose the use of AI in this assessed activity 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

Alomari, Hakam W., Ramasamy, Vijayalakshmi, Kiper, James D. & Potvin, G. (2020). A user interface (UI) and user experience (UX) evaluation framework for cyberlearning environments in computer science and software engineering education. *Heliyon* 6: e03917. <https://doi.org/10.1016/j.heliyon.2020.e03917>

Andreu-Sánchez, Celia, Martín-Pascual, Miguel Ángel, Gruart, Agnès & Delgado-García, José María (2021). The effect of media professionalization on cognitive neurodynamics during audiovisual cuts. *Frontiers in Systems Neuroscience*, 15: 598383. <https://doi.org/10.3389/fnsys.2021.598383>

Cybulski, Pawel & Horbinski, Tymoteusz (2020). User experience in using graphical user interfaces of web maps. *International Journal of Geo-Information*, 9(7): 412. <https://doi.org/10.3390/ijgi9070412>

DeAngelus, Marianne & Pelz, Jeff B. (2009). Top-down control of eye movements: Yarbus revisited. *Visual Cognition*, 17 (6-7):790-811. <http://dx.doi.org/10.1080/13506280902793843>

Eckstein, Maria, Guerra-Carrillo, Belén, Miller Singley, Alison T. & Bunge, Silvia A. (2016). Beyond eye gaze: what else can eyetracking reveal about cognition and cognitive development? *Developmental Cognitive Neuroscience*, 25: 69-91. <http://dx.doi.org/10.1016/j.dcn.2016.11.001>

Hernández-González, Samuel, Andreu-Sánchez, Celia, Martín-Pascual, Miguel Ángel, Gruart, Agnès & Delgado-García, José María (2017). A cognition-related neural oscillation pattern, generated in the prelimbic cortex, can control operant learning in rats. *Journal of Neuroscience* 37(24) 5923-5935. <https://doi.org/10.1523/JNEUROSCI.3651-16.2017>

Joo, Heonsik (2017). A study on understanding of UI and UX, and understanding of design according to user interface change. *International Journal of Applied Engineering Research*, 12(20):9931-9935. [http://www.ripublication.com/ijaer17/ijaerv12n20\\_96.pdf](http://www.ripublication.com/ijaer17/ijaerv12n20_96.pdf)

Prasetya Kristiadi, Dedy, Budiman Udjaja, Yogi, Hendric Spits, Harco Leslie & Kusakunniran, Worapan (2017). The effect of UI, UX and GX on Video Games. *The IEEE CyberneticsCom*. <https://cutt.ly/DmhhWIE>

Throughout the course other resources will be added to this bibliography.

## Software

In this subject, students are free to use the software that best suits their needs and technical capabilities. In the

cases in which the work with a specific software is proposed, it will be, if possible, with free software, which will be presented in the teaching sessions.

### Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

| Type of teaching              | Group | Language | Semester       | Shift     |
|-------------------------------|-------|----------|----------------|-----------|
| (TE) Theory                   | 6     | Spanish  | first semester | afternoon |
| (PLAB) Practical laboratories | 61    | Spanish  | first semester | afternoon |
| (PLAB) Practical laboratories | 62    | Spanish  | first semester | afternoon |