UAB
Universitat Autònoma de Barcelona

2021/2022

User-Centred Design

Code: 104731
ECTS Credits: 6

Degree	Type	Year	Semester
2503873 Interactive Communication	OB	3	1

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: spanish (spa)

Some groups entirely in English: No

Some groups entirely in Catalan: No

Some groups entirely in Spanish: Yes

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.

Objectives and Contextualisation

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.

Competences

- Design and create aesthetically pleasing, usable interfaces based on users' needs.
- Integrate knowledge of design, language and photographic and audiovisual techniques to bring meaning to different types of content.
- 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. Create interfaces that keep a balance between technically functional design and aesthetic taste.
2. Cross-check information to establish its veracity, using evaluation criteria.
3. Distinguish the salient features in all types of documents within the subject.
4. Plan and conduct academic studies in the field of user-centred design.
5. Recognise the key elements for designing an interface tailored to people's needs.
6. Submit course assignments on time, showing the individual and/or group planning involved.

Content

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

Methodology

Content presentation classes, seminars with specific cases and practical projects will be held. Students will carry out interactive projects that include design. The proposed teaching methodology and evaluation may undergo some modification depending on the restrictions on presence imposed by the health authorities.

The detailed calendar with the content of the different sessions will be exposed on the day of the presentation of the subject. It will also be posted on the Virtual Campus where students can find the detailed description of the exercises and practices, the various teaching materials and any information necessary for proper monitoring of the subject. In the event of a change in the teaching modality for health reasons, the teaching staff will inform of the changes that may occur in the programming of the subject and 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			
Lessons	15	0.6	2, 3, 4
Type: Supervised			
Laboratory work	21	0.84	1, 4, 6, 5
Seminars	9	0.36	2, 3, 6
Tutoring	9	0.36	4, 6, 5
Type: Autonomous			
Practical exercises	84	3.36	1, 4, 5

Assessment

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.

The student who performs any irregularity (copy, plagiarism, identity theft...) will be qualified with 0 in this assignment or exam. In case there are several irregularities, the final grade of the subject will be 0.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exam	30%	3	0.12	2, 3, 4, 5
Practical exercises	50%	3	0.12	1, 4, 6, 5
Seminars	20%	6	0.24	2, 3, 6, 5

Bibliography

Alomari, Hakam W., Ramasamy, Vijayalakshmi, Kiper, James D. & Potvin, G. (2020). A user interface (UI) and user experience (UX) ecaluation framework for cuberlearning 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 Jorunal 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

Eckestein, 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

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 with free software, which will be presented in the teaching sessions.