DEGREE CURRICULUM
INTRODUCTION TO WEB PROGRAMMING

Coordination: CALZADA RIBALTA, ALBERT

Academic year 2023-24

Subject's general information

Subject name	INTRODUCTION TO WEB PROGRAMMING
Code	101989
Semester	1st Q(SEMESTER) CONTINUED EVALUATION

Typology	Degree	Course	Character	Modality
	Bachelor's Degree in Audiovisual Communication and Journalism	4	OPTIONAL	Attendance-based

Course number of credits (ECTS)	6

Type of activity, credits, and groups	Activity type	PRAULA	TEORIA
	Number of credits	3	3
	Number of groups	1	1

Coordination	CALZADA RIBALTA, ALBERT
Department	PHILOLOGY AND COMMUNICATION
Teaching load distribution between lectures and independent student work	Classroom contact hours (HP): 60 Autonomous Work: 90 Total: 150 hours
Important information on data processing	Consult this link for more information.
Language	Català
Distribution of credits	1 credit equals 25 hours of student work. Total: 150 hours (6 credits).

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
CALZADA RIBALTA, ALBERT	albert.calzada@udl.cat	3	
SERRA PONS, EDUARD	eduard.serra@udl.cat	3	

Subject's extra information

The subject introduces students to the conceptual, creative and technical foundations of design and programming and it's oriented to the study of cases, the resolution of exercises and web development.

The objective is that the student acquire the knowledge and basic criteria for the practice of web programming from an integrative perspective (content, design and programming), helping him to achieve a systematized work methodology offering the theoretical bases and appropriate practical opportunities.

Methodologically, we propose a course based on problem solvings from the learning of principles and techniques, as well as the application of these in the realization of specific projects.

The learning activities are directed to four different areas:

- Usability in web interfaces creation
- Information architecture for web content creation
- Graphic design of interactive interfaces
- Introduction to standard languages in web development (HTML, CSS and Javascript)
- Installation and management of Content Management Systems (CMS)

In digital practice we will work fundamentally with software and online tools for learning the proper code of standard web languages and, for image editing, with *Adobe Photoshop*. It is not necessary to have previous knowledge, because the course proposes a supervised parallel autonomous learning adapted to the needs of the student.

Learning objectives

O1. Present the principles of usability in the creation of digital content
O2. Systematize the creation of content based on Information Architecture strategies
O3. Apply the principles of graphic design to the development of interactive interfaces
O4. Conceptualize, design and develop web projects
O5. Develop the ability to analyze and implement evaluation systems on web projects

Competences

Basic

CB2. Apply your knowledge to your work or vocation in a professional manner and possess the skills that are generally demonstrated through the elaboration and defense of arguments and the resolution of problems within your area of study.

General

CG2. Develop the capacity for organization and planning.
CG3. Apply theoretical knowledge in a practical activity.
CG4. Develop knowledge of applied computer science and digital systems.
CG6. Develop creativity, innovation and competitiveness.

Specific

CE9. Conceive, plan and execute projects in the area of media in all types of supports.
CE11. Design the formal and aesthetic aspects in written, audiovisuals, multimedia and interactive media.
CE12. Dominate the technologies and systems used to process, develop and transmit content in all types of media.
CE13. Identify and apply the theoretical and practical foundations of audiovisual communication and Internet communication.
CE15. To develop creative capacity in the audiovisual, multimedia and interactive realization of the different genres.

Transverse

CT3. Acquire training in the use of new technologies and information technologies and communication
CT4. Acquire basic knowledge of entrepreneurship and professional environments.

Subject contents

Usability in web environments
IPO interaction
Usability dimensions
Accessibility
DCU: planning and modeling
DCU: design, visual design, evaluation, programming and maintenance)

Information architecture module for web design and development
Organization systems
Labeling systems
Navigation systems
Search systems

Design and development of web interfaces
Introduction to HTML and CCS
Graphic interface design and style guides

Elements of quality control during the design and development process'

CMS content managers
Web publishing with Wordpress
Editing styles and content
Integration of extensions

Methodology

Methodologically, the subject is based on:

- Master classes. Exhibition of the contents of the subject orally by the professor
- Group work: learning activity that has to be done through collaboration between members of a group
- Problem-based learning
- Project elaboration. Active teaching methodology that promotes learning from the completion of a project: idea, design, planning, development and evaluation of the project

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- Study of cases. method used to study an individual, an institution, a problem, etc. in a contextual and detailed way
- Simulation: activity in which, faced with a case or a problem, each student or each group is assigned a role or role according to which they must intervene in the development of the situation
- Practices: allow applying and configuring, at a practical level, the theory of a field of knowledge in a specific context.
- Virtual accompaniment sessions: videoconference sessions where the teacher imparts content and encourages participation through the tool provided in the Virtual Campus

Activity	Description	Objectives	HP	HNP
Master Class (M)	Master classes	O1,O2	28	
Practices (P)	Classroom activities and independent work	O3, O4, O5	32	40
Works (T)	Projects and independent work	O3, O4, O5		50
Evaluation (AV)	Exam and report of the project	O1, O2, O3, O4,O5	2	

Development plan

Session	Contents
1	**Presentation of the subject** **Module 'Usability in web environments' 1/2** Interaction IPO, Dimensions of usability, Accessibility, DCU 1/2 (planning and modeling)
2	**Module 'Usability in web environments' 2/2** DCU 2/2 (design, visual design, evaluation, programming and maintenance)
3	**Module 'Information architecture for web design and development'** Introduction to AI, Organizational systems, Label systems. Navigation systems. Search systems.
4	**Module 'Design and development of web interfaces' 1/3** Graphic interface design and style guides 1/3
5	**Module 'Design and development of web interfaces' 2/3** Graphic interface design and style guides 2/3
6	**Module 'Design and development of web interfaces' 3/3** **Graphic interface design and style guides 3/3**
7	**Conference: 'Copywriting applied to web environments'** **Module 'Elements of quality control during the design and development process'**
8	**Introduction to HTML and CCS**
9	**Module 'CMS content managers' 1/6**
10	**Module 'CMS content managers' 2/6**
11	**Module 'CMS content managers' 3/6**
12	**Module 'CMS content managers' 4/6**
13	**Module 'CMS content managers' 5/6**
14	**Module 'CMS content managers' 6/6**
15	**Final evaluation test**

Evaluation

The course includes two types of follow-up: presential and alternative evaluation. Except for some exceptions (personal or work), these two modalities are mutually exclusive, you must choose one of the two at the beginning of the course. Students who combine their degree with a full time job have the right to ask for alternative assessment within 5 days after the beginning of the semester. For information, please send an e-mail to academic@lletres.udl.cat or ask for information at the Faculty's office (Secretaria de la Facultat de Lletres).

The final grade of the subject will be the result of a weighted average of the following blocks:

Presential :
Attendance to class and active participation (As) - O1, O2, O3, O4, O5 - 20%
Reports (In) / Projects (T) - O1, O2, O3, O4, O5 - 65%*
Evaluation (Presentation and written report) - O1, O2, O3, O4, O5 - 15%

Alternative evaluation:
Reports (In) / Projects (T) - O1, O2, O3, O4, O5 - 85%*
Evaluation (Presentation and written report) - O1, O2, O3, O4, O5 - 15%

O: Objective. %: percentage in the final grade

*To pass the subject it is necessary to approve all learning activities proposed in Projects (T)

In the event of plagiarism, the provisions of the 'Regulations for the evaluation and qualification of teaching in bachelor's and master's degrees at the UdL' will apply.

Bibliography

- **Drug, Steve (2006).** *No me hagas pensar: una aproximación a la usabilidad en la web.* Madrid: Prentice-Hall.
- **Lupton, Ellen. (ed.) (2014)**. *Tipografía en pantalla*. Barcelona: Gustavo Gili.
- **Martí i Font, Josep M. (1999)** *Introducció a la Metodologia del disseny*. Barcelona: Edicions de la Universitat de Barcelona.
- **McKay, Everett (2013).** *UI is Communication: How to Design Intuitive, User Centered Interfaces by Focusing on Effective Communication*. Burlington: Morgan Kaufmann
- **Mullet, Kevin (1995).** *Designing Visual Interfaces: Communication Oriented Techniques*. Nagoya: SunSoft Press.
- **Nielsen, Jakob (2000)**. *Usabilidad. Diseño de sitios web.* Madrid: Pearson Education.
- **Nielsen, Jakob; Loranger, Hoa (2006)**. *Usabilidad. Prioridad en el Diseño Web.* Madrid: Anaya-Multimedia-Anaya Interactiva.
- **Pérez-Montoro, Mario (2010).** *Arquitectura de la información en entornos web*. Gijón: Editorial Trea
- **Reiss, Eric (2012).** *Usable Usability: Simple Steps for Making Stuff Better*. Hoboken: Wiley.
- **Scott,Bill i Neil, Theresa (2009)** *Designing Web Interfaces: Principles and Patterns for Rich Interactions*. Newton: O'Reilly Media, Inc.