DEGREE CURRICULUM

INTRODUCTION TO WEB PROGRAMMING

Coordination: HOSTA ZAZO, XAVIER

Academic year 2020-21

INTRODUCTION TO WEB PROGRAMMING 2020-21

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	HOSTA ZAZO, XAVIER
Department	CATALAN STUDIES AND COMMUNICATION
Teaching load distribution between lectures and independent student work	Classroom contact hours (HP): Master classes: 15h Practices: 3h Project: 3h Exam: 2h Non-contact hours (HNP): Work with virtual accompaniment: 18h Practices (autonomous work): 53h Project (autonomous work): 53h Tutoring: 3h
Important information on data processing	Consult this link for more information.
Language	Català

INTRODUCTION TO WEB PROGRAMMING 2020-21

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
HOSTA ZAZO, XAVIER	xavier.hosta@udl.cat	6	

Subject's extra information

In this subject, the face-to-face hours in the classroom divided by groups will be alternated weekly with the virtual accompaniment sessions. There are also a series of hours of independent work by students supported by audiovisual materials and technical support sheets.

The methodology described here may be altered for health reasons, in this case the master classes and teaching support will be conducted in a completely virtual way.

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

Unit 1. Usability and evaluation of user interfaces.
The Person-Computer interaction and usability.
Usability and accessibility.
User-Centered Design Methodology.
Web usability evaluation systems.

Unit 2. Information architecture for web content creation.
Content labeling systems.
Fundamentals of search and navigation systems.
Methodology of analysis, design, implementation and evaluation of the information architecture.

Unit 3. Interactive interfaces design.
Principles of interfaces graphic design.
Prototyping (wireframes, mockups and prototypes).
Components design for frameworks.
Style guides and programming preproduction.

Unit 4. Web applications development
Origin and evolution of web standards.
Introduction to programming languages: HTML, CSS, Javascript.
Content managers (CMS): installation, adaptation and management.
Analytics and web support.

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
- 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	15	
Practices (P)	Classroom activities and independent work	O3, O4, O5	3	53
Work with virtual accompaniment (TV)	Directed video conferencing sessions	O1,O2		18
Works (T)	Projects and independent work	O3, O4, O5	3	53
Tutoring (Tut)	Tutoring			3
Evaluation (AV)	Exam and report of the project	O1, O2, O3, O4,O5	2	

Following the health protocols proposed by the University of Lleida for the start of the 2020-2021 academic year in the context of the crisis caused by COVID-19, this subject will be taught through hybrid teaching, alternating classroom attendance weekly with videoconference sessions and autonomous work.

Information on data protection in the audiovisual register in the subject Introducció a la Programació Web

In accordance with current regulations on the protection of personal data, we inform you that:
The organisation responsible for the recording and use of the image and voice is the University of Lleida - UdL (contact details of the representative: General Secretariat. Plaza Víctor Siurana, 1, 25003 Lleida; sg@udl.cat; contact details of the data protection officer: dpd@udl.cat). The recorded images and voices shall be used exclusively for teaching purposes. The recorded images and voices shall be saved and preserved until the end of the current academic year, and shall be destroyed in accordance with the terms and conditions specified in the regulations on the preservation and disposal of administrative documents of the UdL, and the documentary evaluation tables approved by the Generalitat de Catalunya (http://www.udl.cat/ca/serveis/arxiu/). The voices and images are considered necessary to teach this subject, and teaching is a right and a duty of the teaching staff of the Universities, which they must exercise under academic freedom, as provided for in article 33.2 of the Organic Law of Universities (Ley Orgánica de Universidades) 6/2001, of December 21. For this reason, the UdL does not need the consent of the students to register their voices and images with the sole and exclusive purpose of teaching in this particular subject. The UdL shall not transfer the data to third parties, except in the cases strictly provided for by the Law. The student can access their data; request correction, deletion or portability; object to its processing and request its limitation, as long as it is compatible with the purposes of teaching, by writing to dpd@udl.cat. You can also submit a complaint to the Catalan Data Protection Authority, via a mail to its website (https://seu.apd.cat) or other non-electronic means.

Development plan

Unit 01. Usability in web environments	4 sessions
Unit 02. Information architecture	2 sessions
Unit 03. Interface design	4 sessions
Unit 04. CMS integration	2 sessions

Evaluation

The course includes two types of follow-up: presential (hybrid teaching) 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 (hybrid teaching):
Attendance to class and active participation (As) and fulfillment of work with virtual accompaniment - 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)

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.
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- **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.