DEGREE CURRICULUM

WEB TECHNOLOGIES

Coordination: TEIXIDO CAIROL, MERCE

Academic year 2023-24

WEB TECHNOLOGIES 2023-24

Subject's general information

<table>
<tr><td>Subject name</td><td>WEB TECHNOLOGIES</td></tr>
<tr><td>Code</td><td>102176</td></tr>
<tr><td>Semester</td><td>2nd Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
<table>
<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Bachelor's Degree in Digital Design and Creative Tehcnologies</td><td>1</td><td>COMMON/CORE</td><td>Attendance-based</td></tr>
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</td></tr>
<tr><td>Course number of credits (ECTS)</td><td>6</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
<table>
<tr><th>Activity type</th><th>PRALAB</th><th>TEORIA</th></tr>
<tr><td>Number of credits</td><td>3</td><td>3</td></tr>
<tr><td>Number of groups</td><td>2</td><td>1</td></tr>
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</td></tr>
<tr><td>Coordination</td><td>TEIXIDO CAIROL, MERCE</td></tr>
<tr><td>Department</td><td>COMPUTER ENGINEERING AND DIGITAL DESIGN</td></tr>
<tr><td>Teaching load distribution between lectures and independent student work</td><td>During the course, the master classes will be combined with the practical classes. To the first, the students will assimilate the theoretical competences that they will apply later to the practical classes. There will be two practical exercises, an exam and a scoring exercise. The student will carry out the autonomous work in non-contact hours.</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
<tr><td>Language</td><td>The classes will be done in catalan</td></tr>
<tr><td>Distribution of credits</td><td>1 credit equals 25 hours of student work
6 credits are 150 hours</td></tr>
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WEB TECHNOLOGIES 2023-24

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
LLEO LASO, JOFRE	jofre.lleo@udl.cat	4	
TEIXIDO CAIROL, MERCE	merce.teixido@udl.cat	5	

Learning objectives

The learning objectives of this subject are based on:

- Be able to recognize the principles of the web, from web 1.0, through 2.0, and the future trends of 3.0.
- Be able to identify the basic elements related to the client-server model.
- Be able to learn and understand the syntax and semantics of a markup language and style sheets.
- Be able to use the basic programming structures of a marked language.
- Be able to learn and understand the syntax and semantics of high-level languages for dynamic web applications.
- Be able to use the basic programming structures of a high-level programming language for dynamic web applications.
- Be able to learn the basic techniques of developing small dynamic web applications.
- Be able to identify and analyze aspects related to the analysis and design of small dynamic web applications.

Competences

Basic and transversal competences:

- CB1. Show an ability to dominate the concepts in its area of study. It goes from general secondary education, based in advanced books, but also in some aspects, that involves knowledge of the current and new fields of study.
- CT3. Acquire a significant proficiency in the use of the new technologies and in the Information and Communication Technologies. (ICT)

General competences:

- CG1. Skill to create and develop answers to problems of communication for the different digital contents.
- CG4. Apply the concepts and own methods of the digital technologies.
- CG10. Use tools and digital means in its professional development.

Specific competences:

- CE9.Get to know the methodologies, programs, technical, rules and standard. Moreover, be able to use the base of knowledge purchased with specific elements of development web.

Subject contents

TOPIC 1: Structure of the information on the Web

1. Information and contents on the web vs on paper
    - Advantages and problems of each support
2. Hypertext
3. Multimedia
4. Interaction
5. client-server model
6. Web management systems (Trello, Sharepoint, Google Drive, Dropbox)
7. Agents of contents

TOPIC 2: Presentation of the information on the Web

1. Semantic web
2. HTML5 and CSS3 Language
    - Characteristics of the language
    - Labels in HTML
    - Accessibility
    - Standards in HTML
    - Styles (CSS)
    - Templates

TOPIC 3: Digital animations on the Web

1. Basic Animations
    - Digital Animation Principles
    - HTML5 + CSS3 animations
    - Basic animations with interactivity
2. Advanced Animations
    - Javascript language
    - HTML5 + CSS3 + javascript animations
    - Advanced animations with interactivity

Methodology

Students are expected to attend classes regularly, to do the exercises and to contribute with their answers, doubts, opinions, etc. to the development of the classes.
All students are expected to attend to 2 hours classes with the whole group and 2 hours with split group. The sessions with split group will be carried out in the laboratory.

Whole group: Theory and Problems Classes (3 credits)

- Theoretical part: supported classes with digital information and/or with notes.
- Practical application part: work of application of concepts more practical.

Split groups: Laboratory Classes (3 credits)

- Conducted Classes and personalised monitoring for practical groups.

Development plan

Week	Attendance activity WG (Whole group)	Attendance activity HG (Half group)
1st	Presentation	Tools
2nd	Introduction + CMSs	WordPress exercises

3rd	Prototyping	Requirements definition + scoring exercise
4th	Semantic web	Semantic web
5th	CSS formats + CSS effects	Web Hosting + VSCode installation
6th	HTML + CSS animations	Non-school day
7th	Exercises	Non-school day
8th	Exercises	Realization of Practice 1
9th	Mid Term Exam	Mid Term Exam
10th	Javascript animations	exercises
11th	Javascript animations	Non-school day
12th	Non-school day	Exercises
13th	Exercises (Without interaction)	Exercises (Interaction)
14th	Realization of Practice 2	Realization of Practice 2
15th	Realization of Practice 2	Realization of Practice 2
16-19th	PRA2 presentation + Exam 2	
20th	Resitting exam	Resitting exam

Evaluation

Evaluation Block	% Final MARK	Evaluation activities	Grade	Minimum mark	In Group	Compulsory	Recoverable
Exercises (EX)	20%	Exercise 1	20%	-	Yes (<=4)	No	No
Practices (PRA)	50%	Practice 1	25%	-	Yes (<=2)	No	Yes
		Practice 2	25%	-	Yes (<=2)		
Theory (THEO)	30%	1st exam	15%	-	No	No	No
		2nd exam	15%	-	No		
FINAL MARK = EX * 0.20 + PRA * 0.50 + THEO * 0.30							

IMPORTANT:

- The **minimum FINAL MARK** to pass the subject must be **equal to 5**.
- The non-presentation of activity will be evaluated with a 0 (zero).
- The recovered activities will not be considered out of 10 points, they will be reviewed out of 8 points.

ALTERNATIVE ASSESSMENT:

- The students that have the approval to be evaluated by alternative evaluation (see requirements and procedure in the evaluation regulations) must take a practical test that will include the content of both practices.

Bibliography

Webgraphy:

W3C: https://www.w3c.es

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Templates: https://templated.co/

Bibliography:

- Gauchat, J.D., El gran libro de HTML5, CSS3 y JavaScript 3ª Edición, Ediciones técnicas Marcombo, 2019
- Lopez, M., Programación Web en Entorno Servidor. Editorial Ra-Ma, 2016
- Lopez, M., Sanchez, D., Programación Web en Entorno Cliente. Editorial Ra-Ma, 2016
- Fernandez, P. E., Creación, programación y diseño de páginas web. Editorial Ra-Ma, 2021
- Fernandez, P. E., Diseño y construcción de páginas web. Editorial Ra-Ma, 2020
- Escarcena, M., Programación páginas web, Javascript y PHP. Editorial Ra-Ma, 2020
- Aubry, C., HTML5 Y CSS3. Editorial ENI, 2021