

Programming for Web Technology Applications

Code: 104740
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: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Prerequisites

To be able to study this subject it is necessary to have basic knowledge of English to face the reading of the bibliography.

Have assumed the basic knowledge of the subjects "Introduction to Web Technology" and "Advanced Web Services".

Objectives and Contextualisation

Undersand the technologies available for webapp development.

Recognize the technical requirements necessary for the development of web applications and their implementation.

Design and prototype web applications for development.

Plan the execution of web application development.

Familiarize with deploying web applications on local and cloud servers.

Customize and modify CMS templates using HTML, CSS and PHP.

Competences

- Apply and integrate knowledge in the fields of social sciences, humanities and engineering to generate complex products and services tailored to citizens' needs.
- Determine and plan the technological infrastructure necessary for the creation, storage, analysis and distribution of interactive multimedia and social-networking products.
- Manage time efficiently and plan for short-, medium- and long-term tasks.
- 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.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.

- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

Learning Outcomes

1. Design web pages and applications that are functional in terms of technology.
2. Design websites and their applications, keeping in mind the ethical qualities of non-discrimination and respect for all collectives.
3. Devise applications for web pages.
4. Interpret, assess and discuss documents on internet creation and the role of web technology.
5. Plan and conduct academic studies in the field of basic and advanced programming.
6. Submit course assignments on time, showing the individual and/or group planning involved.

Content

Subject 1: Introduction to web applications.

Subject 2: Technological ecosystem of web applications.

Subject 3: Project development.

Methodology

The acquisition of practical knowledge will be done through different methodological procedures that include different types of activities, grouped into: lectures, practical sessions in computer laboratories and seminars.

In the theoretical sessions, the contents of the program will be presented, thus providing the necessary elements to carry out practical exercises in laboratories.

With regard to the practices, they will serve to apply in real cases the knowledge acquired in the theoretical sessions. The seminars will encourage critical reflection and debate on the analysis of real cases and models.

The detailed calendar and the content of the different sessions will be displayed on the day of the presentation of the subject and will be published on the Virtual Campus, where students can find the detailed description of the exercises and practices, as well as various teaching materials and any other information necessary for the subject. In case of change of modality for health reasons, the teaching staff will inform about the changes in the programming of the subject and the teaching methodology.

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			
Laboratory practice	21	0.84	2, 1, 3, 5
Lectures	15	0.6	4
Seminars	12	0.48	4, 6
Type: Supervised			
Exam	3	0.12	6

Tutorials	10	0.4	5
Type: Autonomous			
Autonomous work	68	2.72	2, 1, 3, 5

Assessment

The competences of this subject will be evaluated with different activities:

- Written theory test (40% of the final course note)
- Group practical laboratory test (40% of the final course note)
- Individual work delivered in the seminars (20% of the final course note)

The final course note will be the sum of the score obtained in each of these sections.

It is essential to do the three evaluation parts to pass the subject.

The three evaluable parts will be weighted, even if one of them is suspended. But the weighting will not be done if two of them are suspended.

The evaluation system for this subject corresponds to continuous evaluation.

Optional recovery system:

Students have the right to make up each part only if they have been evaluated for this activities. Only failed laboratory subjects and written tests can be made up. Therefore, activities not presented are excluded from recovery system. Seminars are not recoverable and therefore cannot be re-evaluated.

If you repeat a laboratory practice, your maximum mark will be 5 out of 10.

The mark obtained in the recovery of the written test will be the final mark in this section, regardless of whether it is higher or lower than the first test performed.

Attendance: attendance at seminar classes and laboratory practices is compulsory. The unexcused absence of the students in these sessions constitutes a "no-show" in the grade of the seminar or the specific practice, and therefore it will not be recoverable.

Plagiarism: The student who commits plagiarism or any other irregularity (copying, impersonation, etc.) will be qualified with a 0.

The proposed teaching methodology and evaluation may undergo some modification depending on the face-to-face restrictions imposed by the health authorities.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Laboratory practices evaluation	40%	12	0.48	2, 1, 3, 5, 6
Seminar	20%	6	0.24	4
Test	40%	3	0.12	4

Bibliography

The basic bibliography is composed of scientific articles and books from the field of study

1. Luján-Mora, S. (2011). Accesibilidad en el diseño de aplicaciones web.

2. Hassan, Y., Martín Fernández, F. J., & Iazza, G. (2004). Diseño web centrado en el usuario: usabilidad y arquitectura de la información. Hipertext. net, (2).

3. Allanwood, G., & Beare, P. (2015). *Diseño de experiencias de usuario: cómo crear diseños que gustan realmente a los usuarios*. Parramón Paidotribo.

In the introductory session of the subject, students will be provided with a collection of articles and complementary texts necessary to carry out the different activities of the subject.

Software

not required