

Degree	Type	Year
Interactive Communication	OB	3

Contact

Name: Ramon Voces Merayo

Email: ramon.voces@uab.cat

Teachers

Ramon Voces Merayo

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

- 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 104728 "Information Systems", 104738 "Introduction to web technology" 104746 "Information Storage and Retrieval" and 2503873 "Advanced web services".

Objectives and Contextualisation

- Know the methodologies, techniques, technologies and tools available for the development of Web applications.
- Recognize the technical requirements necessary for the development of web applications and their implementation.
- Design and prototype web applications for further development.
- Plan the execution for the development and/or implementation of web applications.
- Deploy web applications on local servers and cloud servers.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.

- Act within one's own area of knowledge, evaluating sex/gender-based inequalities.
- 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.
- Introduce changes in the methods and processes of the field of knowledge to provide innovative responses to the needs and demands of society.
- 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.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Communicate using language that is not sexist or discriminatory.
3. Design web pages and applications that are functional in terms of technology.
4. Design websites and their applications, keeping in mind the ethical qualities of non-discrimination and respect for all collectives.
5. Devise applications for web pages.
6. Evaluate the impact of problems, prejudices and discrimination that could be included in actions and projects in the short or medium term in relation to certain people or groups.
7. Identify situations in which a change or improvement is needed.
8. Identify the social, economic and environmental implications of academic and professional activities within one's own area of knowledge.
9. Interpret, assess and discuss documents on internet creation and the role of web technology.
10. Plan and conduct academic studies in the field of basic and advanced programming.
11. Propose new methods or well-founded alternative solutions.
12. Propose projects and actions that are in accordance with the principles of ethical responsibility and respect for fundamental rights and obligations, diversity and democratic values.
13. Propose projects and actions that incorporate the gender perspective.
14. Propose viable projects and actions to boost social, economic and environmental benefits.
15. Submit course assignments on time, showing the individual and/or group planning involved.
16. Weigh up the risks and opportunities of both one's own and other people's proposals for improvement.

Content

1. Course Introduction
2. Implementation of General-Purpose Applications
 - 2.1 Information Systems in Organizations
 - 2.2 Accessibility, Security, and SEO
3. Analysis, Development, and Deployment of Specific-Purpose Web Applications
 - 3.1 Ecosystem for the Analysis and Development of Specific-Purpose Web Applications
 - 3.2 The Front End
 - 3.3 The Back End
 - 3.3.1 Design, Implementation, and Operation of Databases
 - 3.3.2 Software Architectures
 - 3.4 Deployment of Specific-Purpose Web Applications

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Guided workshops	5	0.2	1, 2, 7, 10, 16, 15, 11
Laboratory practice	33	1.32	1, 2, 4, 3, 5, 8, 7, 10, 16, 15, 11, 12, 13, 14, 6
Lectures	10	0.4	2, 4, 8, 9, 6
Type: Autonomous			
Personal study	30	1.2	1, 2, 4, 3, 5, 8, 7, 9, 16, 12, 13, 14, 6
Practical tasks	67	2.68	1, 2, 4, 3, 5, 8, 7, 10, 16, 15, 11, 12, 13, 14, 6

This course requires a total of 150 hours of dedication, of which 48 hours will be in face-to-face format and 102 hours in non-face-to-face format.

The guided learning activities will be divided as follows:

- Lecture classes (10h): Sessions in which the teaching staff will provide information about the subject's knowledge and resources and strategies to acquire, expand, and organize this knowledge.
- Guided workshops (5h): Sessions in which the teaching staff will propose practical scenarios to be analyzed in groups, evaluating difficulties and seeking the most appropriate solutions.
- Laboratory practices (33h): Sessions in which group practical activities related to the course content will be carried out.

As for the autonomous learning activities, they will be divided as follows:

- Personal study (30h): Hours devoted to assimilating the theoretical content of the course. Note: Certain contents of the course will be delivered in a flipped classroom format.
- Practical work (72h): Hours dedicated to completing practical activities. These practical activities will include:
 - Group activities: These correspond to laboratory practices and guided workshops and are mandatory.
 - Challenges: Practical and optional proposals aimed at complementing and/or deepening certain course contents, while also fostering the students' autonomy.

A detailed schedule outlining the content of each session will be presented on the first day of the course and will be available on the course's Virtual Campus, where students will find all teaching materials and necessary information for eUffective course monitoring. Should the teaching modality change for reasons of force majeure according to the competent authorities, the teaching staff will inform students of any modifications to the course schedule and teaching methodologies.

Note: Note: The course content will be sensitive to issues related to gender perspective and the use of inclusive language. If you identify any content that could be improved, please inform the teaching staff so it can be corrected.

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Challenges	10%	1	0.04	1, 2, 4, 8, 7, 10, 16, 15, 11, 6
Laboratory practices	50%	2	0.08	1, 2, 4, 3, 5, 8, 7, 10, 16, 15, 11, 12, 13, 14, 6
Theoretical test and workshops	40%	2	0.08	1, 2, 3, 8, 7, 9, 10, 16, 15, 11

The competences of this subject are evaluated with different activities:

- ACTIVITY A, 40% on the final grade. Monitoring and evaluation of the skills acquired in the theoretical sessions (30%) and guided workshops (10%).
- ACTIVITY B, 50% of the final grade. Monitoring and evaluation of the skills acquired in laboratory practices.
- ACTIVITY C, 10% on the final grade. Monitoring and evaluation of the skills acquired in the challenges.

The final grade will be the weighted sum of the score obtained in each of these parts. It must be borne in mind that:

- To pass the subject, it will be necessary to obtain a minimum of 4/10 points in type A and B activities.
- The note for activity A will come from the weighted average of a theoretical test and the evaluation of the guided workshops.
- The mark for activity B will come from the weighted average of the evaluations of the practices carried out, as long as a final validation test is passed with a mark greater than or equal to 4/10.
- The grade for activity C will come directly from the weighted average of the evaluations of the challenges presented.

The evaluation system of this subject corresponds to continuous evaluation.

REEVALUATION SYSTEM

1. According to regulations, to be able to participate in the reevaluation process, the student must have previously been assessed for at least 2/3 of the subject's total assessable activities.
2. TYPE A ACTIVITIES: The theory test can only be retaken if the student has taken the theory test set in the continuous assessment and obtained a grade lower than 4.9. Regarding guided workshops, all those workshops that have not been presented during the continuous evaluation are excluded from reevaluation (unless there is a creditable reason for force majeure).
3. TYPE B ACTIVITIES: All those activities not presented during the continuous evaluation are excluded from reevaluation (unless there is a verifiable reason of force majeure). On the other hand, the grade obtained will be limited to 6/10 points.
4. TYPE C ACTIVITIES: All those activities not presented during the continuous evaluation are excluded from reevaluation (unless there is a verifiable reason of force majeure). On the other hand, the grade obtained will be limited to 6/10 points.

SINGLE-ASSESSMENT

This subject does not provide for the single-assessment system.

PLAGIARISM

If a student commits any irregularity that could lead to a significant change in the grade of an assessment activity, that assessment activity will be graded with a 0, regardless of any disciplinary process that may be initiated. If multiple irregularities occur in the assessment activities of the same course, the final grade for that course will be 0.

CONSIDERATION AS NOT ASSESSABLE

According to point 9 of article 266 of the UAB Academic Regulations, "when it is considered that the student has not been able to provide sufficient evidence for assessment, the course must be graded as Not Assessable."

In this course, any student who has not submitted 80% of the laboratory practices and guided workshops will be considered Not Assessable.

ARTIFICIAL INTELLIGENCE

In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of assignment development, provided that the final outcome demonstrates a significant contribution from the student in terms of analysis and personal reflection. Students must clearly identify any content generated using AI, specify the tools employed, and include a critical reflection on how these technologies have influenced both the process and the final result of the assignment. Failure to disclose the use of AI in this assessed activity will be considered a breach of academic integrity and may result in a partial or total penalty to the assignment grade, or more serious sanctions in severe cases.

Bibliography

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7. Zandstra, M. (2021). *Enterprise Patterns*. In: *PHP 8 Objects, Patterns, and Practice*. Apress, Berkeley, CA. https://doi-org.are.uab.cat/10.1007/978-1-4842-6791-2_12. Disponible: https://bibcercador.uab.cat/permalink/34CSUC_UAB/1c3utr0/cdi_askewsholts_vlebooks_978148426791

In the introductory session of the subject, students will be provided with a collection of complementary resources.

Software

IDE (Visual Studio Code, Sublime Text, NetBeans...)

Git

MySQL Workbench

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PLAB) Practical laboratories	61	Catalan	first semester	afternoon
(PLAB) Practical laboratories	62	Catalan	first semester	afternoon
(TE) Theory	6	Catalan	first semester	afternoon