Course Fact Sheet

Master in Informatics and Computing Engineering
Web Languages and Technologies
Instance: 2017/2018
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Institutional page

General Information

Course Unit: Web Languages and Technologies
Code: EIC0112
Programmes: MIEIC, 3º
Academic Year: 2017/2018
Semester: 1S
Credits: 6 ECTS
Hours/Weeks: 2 T, 6X2 TP
Teachers: André Monteiro de Oliveira Restivo

Teaching language

Suitable for English-speaking students

Objectives

The goal is providing the students with skills in the most significant languages and Web technologies in the current technological context or that were breakthroughs in the Web's evolutionary process.

Learning outcomes and competences

Students who obtain a passing grade, should be able to:

1. Create a document structured using HTML.
2. Use CSS to layout and design a web page.
3. Create dynamic web pages that access a database using PHP.
4. Improve the interaction between users and webpages by using client-side JavaScript.
5. Understand the HTTP protocol, its requests and responses.
6. Analyze all types of security problems that arise when developing web pages and know how to solve them.
7. Use regular expressions to clean and validate text formatted data.
8. Understand the relation between XML and web development as well as using various XML tools like XPath.

Working method

Presencial

Pre-requirements (prior knowledge) and co-requirements (common knowledge)

To attend this UC students must have passed all the UC's *Fundamentals of Programming* and *Programming* .

Program

- HTML 5 and CSS 3
- The PHP language
- Client-side JavaScript
- The HTTP protocol
- Web Security
- Regular Expressions
- XML and XML tools

Main bibliography

- Elizabeth Castro, Bruce Hyslop; HTML5 & CSS3: Visual QuickStart Guide (Visual QuickStart Guides), Peachpit Press, 2011. ISBN: 0-321-71961-1
- David Flanagan; JavaScript: The Definitive Guide, O'Reilly Media, 2011. ISBN: 0-596-80552-7 (Library)
- Anders Møller, Michael I. Schwartzbach; An Introduction to XML and Web Technologies, Addison Wesley Professional, 2006. ISBN: 0321269667 (Library)

Teaching methods and learning activities

In Lecture classes are exposed concepts using practical examples whenever necessary.

In recitation classes are proposed practical exercises, to be solved by students, in addition to the concepts previously presented in the lecture classes. In addition, the students will have to develop a project, in which they are expected to apply the concepts presented in class.

Software

Keywords

Technological sciences > Technology > Internet technology Technological sciences > Technology > Information technology

Type of assessment

Distributed evaluation with final exam

Registered evaluation and occupation components

Description	Type	Time (hours)	Date of conclusion
Attendance (estimated)	Lectures	56	
Project work	Project Work	82	
Test 1	Test/Examination	-	-
Test 2	Test/Examination	-	-
Study	Study	30	
	Total:	168	

Eligibility for exams

Delivery of practical assignment and a final examination through a written test.

Final grade

Minimum grade of 8 marks (out of 20) on the Project and Exam

Final Grade = 0.5 * Project + 0.5 * Exam

Note that to obtain minimal marks roundings are not considered. That means, that the exam's minimal mark is 40%. Ex: 7,95 < 8 ⇒ therefore fails.

Examinations

One pratical assignment,partially executed during the pratical classes, to be delivered and the present in the last week of classes.

Special evaluation (TE, DA, ...)

Part time students should present their assignments in the same schedule dates. The delivery of the assignments should be done until the same deadline as regular students.

Improvement of final/distributed classification

The exam component can be improved with a new exam. The assignment component cannot be improved in the same edition. However, it is possible to improve it in the next edition.

Observations

To attend this UC students must have passed all the UC's Fundamentals of Programming and Programming .

– A. Restivo