

Computer science V Web and programming

Level: Bachelor's degree / Year 3 / Semester 1

Curriculum: Bachelor of Economics

Semester: 5

Hours: 8 hours of class and 16 hours of practice

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Course objectives:

The aim of this course is to enable students to implement a CMS platform such as Wordpress using a project management approach.

To achieve this objective, the module will begin with a theoretical course that will introduce them to project management (3 hours).

- By example, using a mindmap created in class to define together what a project is.
- Through a theoretical course

This will be followed by a theoretical overview of the technologies used to develop website:

- Simple computer basics, binary and hexadecimal, Boolean algebra...
- Files and file formats, including notions of headers and encryption
- The various video and image formats, composition of a digital image and its conversion into a to video, codecs, timeline
- IT infrastructure and networks (web and database servers, protocols, etc.)
- The evolution of the Internet and web tools
- Presentation of the technologies needed to set up a CMS: RSS feeds, Trackbacks, Plugins, etc.

The second part of the module will consist of a project to set up a blog using the CMS Wordpress.

Students, in groups of 2 or 3, will take the place of each stakeholder in a project team, with the aim of to draw up a mission statement, specifications and mock-up of the Wordpress blog they will have to implement. They will then have to deploy and implement the blog in TD sessions and personal work.

Throughout the module, an awareness of IT security, its issues and the notions of risk and responsibility will be and responsibilities, using both examples and theory (e.g. brute-force attack calculations for example).

Course outline:

S1: Course presentation, mindmapping project management, theory course

S2: Theoretical course, validation of project topics

S3 and S4: Theory course

S5: Handover of project file. Presentation of Wordpress and expected technical specifications.

S6 to S12: Wordpress tutorials

**Skills developed:**

Identify the relevance of implementing a project approach
Analyze a request and translate it into a requirement
Produce specifications
Use a mindmapping tool
Set up a CMS platform to meet detailed specifications and external

technical requirements

Acquire English project management and general IT vocabulary

Assessment methods:

Project report, i.e. an assignment letter, specifications and model (7 points out of 20)
Course and TD participation grade (2 points out of 20)
Presentation, in English, of the work carried out on the CMS platform in line with the (11 points out of 20). Assessment will be based on the following criteria:

- o Technical quality of the final rendering
- o Presentation of project and rendering
- o Vocabulary used
- o Answers to the teacher's questions