



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
MKTG-256	Web-based Applications Development	6
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
None	Management	Fall/Spring/Summer
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Required	MIS	English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
1 <sup>st</sup> Cycle	Prof. Despo Ktoridou	2 <sup>nd</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Corequisites</b>
Face-to-Face	N/A	None

### Course Objectives:

The main objectives of the course are to:

- Provide a comprehensive introduction to web-based technologies.
- Provide an authoritative overview to a set of key technologies for building web applications (HTML, HTML5, JavaScript, Dynamic HTML, CSS, ASP, AJAX, and XML).
- Provide an overview of Web 2.0, its applications and Rich Internet Applications (RIA).
- Introduce a higher-order conceptual design, patterns view of the architecture and design of a dynamic business web application.
- Provide a comprehensive overview to web design alternatives: Platforms, Frameworks, Content Management Systems (WordPress implementation).

### Learning Outcomes:

After completion of the course students are expected to be able to:

1. understand web-based technologies: (students will be provided with a comprehensive overview on: web-based technology; anatomy of web-based technology; evolution of web-based technology; examples and finally evolution of development tools);
2. understand the basics of key technologies for building Web Applications such as HTML, JavaScript, Dynamic HTML, CSS, ASP, PHP, AJAX, and XML): (students should be able to apply the above key technologies for developing light-weighted and rich-content Web applications);

3. understand the theoretical basics of Web 2.0, its implications and Rich Internet Applications (RIA): (students will acquire the necessary knowledge and understanding of Web 2.0: business aspects, Characteristics and Meme, Rich Internet Applications: Practices, Technologies, and Frameworks);
4. use higher-level conceptual design patterns for web-applications: (students will have the necessary knowledge and skills to design, develop and maintain a dynamic business web application);
5. understand the core information on:
  - web design alternatives: Platforms, Frameworks, Content Management Systems
  - the features, Content Management and Design, Administration and Security of WordPress

(Students will have the necessary knowledge and skills to value CMS, build and deploy feature-rich, interactive business web applications in Microsoft environments using the Web Content Management Platform WordPress).

### Course Content:

#### **SECTION I: Introduction to web-based Technology**

- Definition
- Anatomy
- Evolution
- Examples
- Evolution of development tools

#### **SECTION II: Introduction to a set of Key Technologies for Building Web Apps**

Introduction to: HTML and HTML5, JavaScript, CSS, ASP, PHP, AJAX, and XML

#### **SECTION III(a): Web 2.0 Technologies**

- Introduction to Web 2.0
- Business Aspects of Web 2.0
- Characteristics and Memes of Web 2.0
- Rich Internet Applications (RIA)
- Social Networks
- The IT infrastructure necessary to run WEB 2 applications, including Cloud Computing
- Web-Centric Development and Architectural Models

#### **SECTION III(b): Rich Internet Applications RIA**

- Rich Internet Applications: Practices, Technologies, and Frameworks
- What Exactly Is an RIA and Why Do We Care About It?
- A Techno-Business Tour Through the RIA Land
- Web 2.0 RIA Technologies, Standards, and Frameworks

#### **SECTION IV: Principles of Usability and Heuristic Evaluation**

- Usability Testing
- Heuristic Evaluation Checklist

**SECTION V: Design Principles for Building Business Web Applications**

- Foundations of Business Web Application Design
- Patterns for Creating Winning Business Web Applications

**SECTION VI: Web Design Alternatives**

- Platforms,
- Frameworks,
- Content Management Systems

**SECTION VII: WordPress**

- Why WordPress
- The WordPress Admin Dashboard & Bar
- WordPress setting
- Pages and posts
- Categories and tags
- Plugins
- Themes
- Menus
- SEO

**Learning Activities and Teaching Methods:**

Laboratorial work, Faculty Lectures and Guest-Lectures Seminars, Directed and Background Reading Case-studies, Student-led Presentations.

**Assessment Methods:**

Participation/Attendance; Assignments; Project; Final Exam.

**Required Textbooks / Readings:**

Title	Author(s)	Publisher	Year	ISBN
Professional WordPress: Design and Development, 3 <sup>rd</sup> Ed.	Brad Williams, David Damstra, Hal Stern	John Wiley & Sons, Inc.	2015	978-1-118-98724-7

**Recommended Textbooks / Readings:**

<b>Title</b>	<b>Author(s)</b>	<b>Publisher</b>	<b>Year</b>	<b>ISBN</b>
Intro to Web Application Development Environment	Extropia: The Open web technology company		2013	
<a href="http://www.extropia.com/tutorials/devenv/toc.html">http://www.extropia.com/tutorials/devenv/toc.html</a>				