

1. GENERAL

SCHOOL	ENGINEERING		
DEPARTMENT	PRODUCT AND SYSTEMS DESIGN ENGINEERING		
LEVEL OF STUDIES	UNDER GRADUATE		
COURSE CODE	5101	SEMESTER	8th
COURSE TITLE	WEB DESIGN and PROGRAMMING		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
Lectures	3	6	
Laboratory			
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	<i>specialised general knowledge</i>		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK/ENGLISH		
COURSE DELIVERED TO ERASMUS STUDENTS	YES		
MODULE WEB PAGE (URL)	https://eclass.uowm.gr/courses/MRE261		

2. LEARNING OUTCOMES

Learning outcomes
<p>The aim of the course is to present the technologies related to the Internet and the World Wide Web with emphasis on the design and programming of interactive web services and applications. It covers topics related to communication protocols and models, architectures, services, security and programming languages used to develop related applications (e.g PHP and Javascript).</p> <p>Upon successful completion of the course, the student should:</p> <ul style="list-style-type: none"> • Know the basic principles of operation of the World Wide Web, basic development technologies and website performance factors • Describe the basic languages and technologies of the World Wide Web. • Develop functional websites • Understand the basics of using typography, color, and visual hierarchy on the World Wide Web • Describe the basic principles of search engine operation and content optimization techniques for search engines • Know the basic technologies for assisting web accessibility • Use content management environments on the World Wide Web • Apply CSS frameworks to the design and development of websites
General Skills
Theoretical and practical background in the field of programming on the World Wide Web.

Understand the technologies used on the World Wide Web

3. COURSE CONTENTS

- Introduction to Computer Networks - Internet Communication Protocols
- Introduction to the World Wide Web, Basic Development Technologies Website Performance Factors, Heuristic Evaluation of Web Usability
- Typography and color on the web
- Visual hierarchy in web design
- Navigation on websites
- Search engines Search engine optimization
- Web accessibility
- Web CMS presentation
- Dynamic web programming using HTML, CSS, Javascript, PHP, MySQL technologies

4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	THEORY In class, face to face										
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	<ul style="list-style-type: none">● Use of appropriate software● Video and slide presentations● Support of teaching process via the electronic platform e-class										
TEACHING METHODS	<table border="1"><thead><tr><th><i>Activity</i></th><th><i>Semester workload</i></th></tr></thead><tbody><tr><td>Lectures</td><td>50</td></tr><tr><td>Projects</td><td>50</td></tr><tr><td>Non-directed study</td><td>50</td></tr><tr><td>Course total</td><td>150</td></tr></tbody></table>	<i>Activity</i>	<i>Semester workload</i>	Lectures	50	Projects	50	Non-directed study	50	Course total	150
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Lectures	50										
Projects	50										
Non-directed study	50										
Course total	150										
ASSESSMENT METHODS	<ol style="list-style-type: none">1. (60%) Final written exam which includes:<ol style="list-style-type: none">i. Short-answer questionsii. Multiple choice questionsiii. Problem solving2. (40%) Homework										

5. ATTACHED

- Προγραμματισμός Internet & world wide web 4η έκδοση , Deitel & Deitel
- ΕΙΣΑΓΩΓΗ ΣΤΟΝ ΠΡΟΓΡΑΜΜΑΤΙΣΜΟ ΔΙΑΔΙΚΤΥΑΚΩΝ ΕΦΑΡΜΟΓΩΝ, Μιχάλης Σαλαμπάσης, 2η έκδοση, 2016
- Principles of Web Design, 5th edition, Joel Sklar, 2012, Gengage learning