AEC WEB DEVELOPMENT AND DIGITAL MARKETING   LEA.CX

Web Development and Digital Marketing

Course title:

FRONT END DEVELOPMENT FOR MOBILE AND RESPONSIVE WEB DESIGNS

420-MN3-UM

90 hours (2.66 units)
Weighting of course: 3-3-2

HOURS		
Theory	Practice	Study at home
45	45	30

Semester: Summer 2018

This is the 2nd course in the Program

Course code	Course Title	Theory hours	Lab hours	Total
420-MN1-UM	Fundamentals of Programming	30	15	45
420-MN3-UM	Front End Development for Mobile and Responsive Web Designs	45	45	90
420-MN2-UM	Graphic Design for Web	30	30	60
420-MN4-UM	CMS Platforms for Web Application Development	30	45	75
420-MN5-UM	Fundamentals of Digital Marketing	30	30	60
420-MN6-UM	SEO & PPC - Outbound Marketing	45	45	90
420-MN7-UM	Social Media Marketing	45	45	90
420-MN8-UM	Web Analytics and Conversion Optimization	30	60	90
420-PNM-UM	Project	0	600	600
		285	915	1200

COURSE DESCRIPTION

This course introduces essential front end web development languages, focusing mainly on HTML, CSS and JavaScript. Course content explores front-end web development best practices and the purpose of responsive web design. At the end of the course students will be able to create responsive web pages with HTML, apply basic formatting styles using CSS and understand JavaScript for basic interactivity.

AFTER SUCCESSFULLY COMPLETING THIS COURSE, THE STUDENT WILL HAVE PARTIALLY[1] ACHIEVED THE FOLLOWING OBJECTIVES (SKILLS) AND THEIR ELEMENTS:

Objective code	Objective Description	Elements of the Objectives
YC02	Apply a development approach by objects	✓ Analyze the characteristics of users. ✓ Establish the interaction characteristics. ✓ Choose input and output devices. ✓ Plan the overall organization of the interface ✓ Perform programming of the user interface
YC03	Correct programs	✓ Identify the problem ✓ Determine the nature of the problem ✓ Correct the problem. ✓ Validate the correction. ✓ Make corrections to the documentation.
017A	Implement an Application	✓ Plan the implementation ✓ Set up the environment. ✓ Validate the quality of the implementation ✓ Monitor the implementation ✓ Produce the exploitation guide
YC05	Design a hypermedia application in internal and global networks	✓ Establish the features of the application. ✓ Establish the technological framework. ✓ Prepare the work and development of the application. ✓ Produce the presentation prototype. ✓ Produce the communication prototype.

		✓ **Develop the application** ✓ **Produce the documentation for the application**

CLASS	SUBJECT	HOURS
1	**Introduction to the concepts of Web, Markup Language and HTML.** **Introduction to Core HTML elements-I** • Core Elements	4.5
Lab 01	Exercise 1: Creating documents using HTML	4.5
2	**Introduction to Core HTML elements - II** • Attributes • Formatting text **Introduction to CSS** • CSS Syntax • Adding style to HTML • Working with Colors • Formatting Text with CSS	4.5
Lab 02	Exercise 2: Working with Text Formats, Working with Images, Links, Tables and Lists in HTML, Adding CSS to HTML, working with colors, Testing the use of text and fonts styles	4.5
3	**CSS Properties** • Working with Backgrounds • CSS Height/width • Styling Borders **Using HTML Blocks - I** • Using blocks • CSS Boxing • CSS Combinators	4.5
Lab 03	Exercise 3: Testing the use of background styles, border, margin & padding styles, Link states styles, CSS Layouts & Combinators	4.5
4	**Using HTML Blocks – II** • Using Overflow • List Styles **CSS** • Measurement • CSS Transitions • Animations • Positioning **Assignment**	4.5
Lab 04	Exercise 4: Using HTML Blocks Exercise, CSS Animations and Transitions	4.5
5	**JavaScript - I** • JavaScript Syntax • DOM Model • DOM Manipulation • Access Elements and their Attributes **Mid-Term Exam**	4.5
Lab 05	Exercise 5: Creating a JavaScript script , Using alerts and Window properties	4.5
6	**Program Structure in JavaScript – II** •Document Object Model (DOM) • Adding JavaScript to HTML **Flow of Control in a Program** • Comparison Operators • Logical Operators • Decision making concepts • Control flow statements • Working with Loops	4.5
Lab 06	Exercise 6 - Using DOM , Using Math & Functions	4.5
7	**Document Object Model (DOM) - I** • DOM Nodes • Using the childNodes collection **JQuery** • DOM Manipulation • Elements access using JQuery	4.5
Lab 07	Exercise 7 - Using strings and Arrays, conditionals& loops , Testing the use of childNodes, nodeValue, nodeType and nodeName in JavaScript	4.5
8	**Document Object Model (DOM) - II** • Node Properties • Element's attributes **Responsive HTML** • Using Viewport • Building a Responsive Grid-View • Responsive Web Design - Frameworks	4.5
Lab 08	Exercise 8 - Setting and reading element's attributes, Creating Responsive HTML	4.5

	documents	
9	**Introduction to Bootstrap** • Getting Bootstrap • The grid system • Using the grid structure **Bootstrap Elements & Navigation** • Typography • Colors & Borders• Images • Navigation elements	4.5
Lab 09	Exercise 9: Create a simple response design using bootstrap and its grid system, Using Dropdowns and Button groups in Bootstrap, Create a simple response design using bootstrap tables	9
10	Remaining syllabus (If any) & Clarifications **Final Exam**	4.5

RECOMMENDED READINGS AND MEDIA

• Head First HTML and CSS, 2nd Edition (Elisabeth Robson and Eric Freeman, O'Reilly)
• HTML, CSS and JavaScript All in One, Sams Teach Yourself: Covering HTML5, CSS3, and jQuery, Second Edition (Julie C. Meloni, Sams)
• JavaScript in 24 Hours, Sams Teach Yourself, Sixth Edition (Phil Ballard, Sams)
• https://www.w3schools.com/

TEACHING METHODOLOGY

This course has a total of 90 hours of theoretical and practical training. The training consists of different components: lecture, practice, formative assessment, demonstrative, etc. The material is seen in class. The student is expected to do homework at home. The nature and content of the Project will be explained during the semester at the Teacher's discretion.

The Student is responsible for reading the *Institutional Policy on the Evaluation of Student Achievement* (IPESA).

TEACHER'S COORDINATES

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