

Academic Architects

Course Data Sheet

Course Number:	WEBTECH-300
Course Name:	Applied Web Design and Development
Level of Effort:	3 Semester Hours or 5 Quarter Hours
Course Level:	Intermediate
Prerequisites:	Introduction to Information Technology Course
Adoption/Use:	Introduction to Web Development, HTML, CSS
Subject Area:	Information Technology, Web Development
Release Version:	2020-1

Primary Course Objective: Upon completion of this course students will be able to design, develop, deploy, support, and maintain a functional enterprise website.

Course Description:

This competency-based course will provide students with the "hands-on" skills to plan, design, develop, test, and deploy professional websites using the client-side web development languages HTML5 and CSS3. Students learn by structuring and coding websites, implementing CSS to format and layout web pages, and testing, debugging, and validating code for deployment. Students will implement responsive web design and intuitive navigation for mobile devices. The course will culminate in the design, development, and deployment of a fully functional enterprise website.

Course Topics:

- Web Development Tools and Development Environment Setup
- Coding, Testing, Debugging, Validating, and Deploying Web Pages
- HTML5 and CSS3 Syntax and Code Readability
- CSS Box Model, Formatting, Page Layout, and Print Control
- Lists, Hyperlinks, Menus, Tables, and Forms
- Responsive Web Design and Responsive Page Layout
- Web Media: Fonts, Images, Icons, Audio, and Video
- Website Design, Structure, and Usability

Course Learning Objectives and Competencies:

Upon completion of the course students will be able to:

1. Set up an environment for the design, development, and deployment of websites and web applications.
2. Create, edit, test, debug, and validate the proper code syntax and structure for web pages.
3. Create and use CSS to properly format web elements, set up the page layout, and implement the CSS box model.
4. Properly use web lists and hyperlinks and create and implement intuitive website navigation.
5. Implement responsive web design using fluid layout, media queries, flexible box layout, and grid layout for mobile devices.
6. Use and work with images, audio, video, and fonts.
7. Design, create, and implement tables and forms for web pages.
8. Use advanced features of CSS and apply JavaScript to web pages.
9. Design an enterprise website and create the project plan that includes navigation flow diagrams, storyboards, and wireframes.
10. Design, develop, and deploy a complete and functional enterprise website based on the project plan and design.

Course Deliverables:

Deliverable	Quantity
Course Curriculum Design	1
Course Syllabus	1
Course Schedule Plan (8, 10, and 16 week plans)	1
Course Learning Modules	16
Course Assessment Rubrics	4
Competencies and Objectives Map (Maps Competencies and Objectives to Learning Activities and Assessments)	1
Handouts	1
Videos	1
Instructor Notes	1
Administrator Notes	1

Learning Activities:

Learning Activity	Quantity
Videos	1
Hands-On Workshops	2
Research Activities	2
Discussion Boards (Graded)	9
Lab Exercises (Graded)	7
Course Project Activities (2 - Graded)	10