



UCIRVINE | EXTENSION

Information Technologies
Programs

Web Design and Development Certificate Program

Accelerate Your Career



extension.uci.edu/webdesign



Improve Your Career Options with a Professional Certificate

Web Design and Development Certificate Program

Move beyond first generation HTML-based web pages and create interactive, state-of-the-art, web-based applications that support the demands of tomorrow's e-business processes. Become familiar with good design practices and today's fundamental web application development tools to design and implement effective and dynamic websites.

Students pursuing the certificate program have the option of taking either the Web Design track or the Web Development track, depending on their particular area of interest.

In today's competitive business environment, leaders are appointed based on credentials and experience. To stay ahead of the competition, advance your career and increase your earning potential, enroll in one of University of California, Irvine Extension's professional certificate programs. Convenient and affordable, UC Irvine Extension makes it easy to learn on your own time, in your own way. Courses are designed to ensure you gain mastery of a particular topic, and instructors are highly qualified leaders in their professions.

UC Irvine Extension is the only continuing education provider in Orange County that represents the University of California. A certificate bearing the UC seal signifies a well-known, uncompromising standard of academic excellence.

Web Design track

Prepare for a career as a professional website designer crafting the look, layout, and organization of websites. The applications and concepts for this emphasis include HTML, Photoshop, Cascading Style Sheets, Information Architecture, and Graphical Design Concepts.

Web Development track

Prepare for a career as a professional web developer managing the functional aspects of websites. The applications and technologies for this emphasis include HTML, JavaScript, PHP, MySQL, and Flash.



At the conclusion of the certificate program, students are required to take a valuable capstone course. During the capstone course, students will complete an appropriate website project. This project reinforces concepts learned throughout the program and provides students with valuable experience in creating a professional website that may serve as the basis for a professional portfolio.

Who Should Enroll

Current and future uses for the web require a knowledge of distributed computing and security issues, as well as web development, server maintenance and application support. Those working in this area need to refresh their skills to allow them to manage more complex, security-conscious and regulated environments.

This certificate program has been designed for:

- Individuals interested in entering into the web design field
- Individuals interested in building and maintaining their own websites
- Graphic designers, multimedia designers and marketing professionals who want to increase their expertise in the area of web design
- Those already working in the field who want to keep up with this rapidly changing industry

Certificate Requirements

A certificate is awarded upon completion of a combined 5 required courses (9 units) and a minimum of 6 units of elective courses with a grade of "C" or better in each course. All requirements must be completed within five (5) years after the student enrolls in his/her first course.

For more information:

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Program Benefits

- Learn to design, implement, publish, and maintain websites, using authoring or scripting languages, content creation tools, management tools and digital media.
- Understand how to clearly organize a consistent and functional website from both user and business perspectives.
- Evaluate code to ensure that it is valid, properly structured, meets industry standards and is compatible with browsers, devices or operating systems.
- Develop or validate test routines and schedules to ensure that test cases mimic external interfaces and address all browser and device types.
- Construct, extract, transform, and present database resident content directly into a web delivery mechanism.

Program Fees

The total cost of the certificate program varies depending on the electives chosen. Actual fees may differ from the estimate below. Fees are subject to change without prior notice.

Course fees (5 required and 6 units of electives)	\$5,850
Candidacy fee	\$ 125
Textbooks	\$ 350
Total Estimated Cost	\$6,325

Additional Costs (software for Elective Courses)

Adobe Photoshop*	\$ 300
Adobe Flash*	\$ 250

On-Site Training

Through Corporate Training, we can deliver this program or customize one that fits your organization's specific needs.

Visit extension.uci.edu/corporate or call (949) 824-1847 for information.

*Based on purchasing from the UCI Computer Store (computerstore.uci.edu)

Curriculum



Required Courses

Web Development with HTML

I&CSCI X471.03 (2 units)

Hypertext Markup Language (HTML) is used to render all web applications from the simplest to the most complex. Web development tools such as Dreamweaver and FrontPage allow users to design a web page visually and then convert the design into HTML statements. While an entire web page can be designed this way, situations that require customization or special functionality usually require the developer to work directly with individual HTML statements. So, it is important to know how HTML works. This course introduces HTML “building blocks” and allows participants to build a website step-by-step.

Prerequisites: Excellent analytical skills; must enjoy using computers and have a knack for figuring things out on the computer.

JavaScript Programming

I&CSCI X471.04 (2 units)

JavaScript is a programming language that allows you to add a significant amount of functionality to what would otherwise be a static web page. You'll learn the fundamentals of event-driven programming, how to implement loops and control structures, and how to add compelling interactive features to your web pages. *Prerequisites: HTML; excellent analytical and sequential thinking skills.*

Internet Systems Architecture

I&C SCI X471.61 (1.5 units)

This is an introductory level course which is geared towards anyone who wants to know how the internet works. Topics include how web sites are architected, how does communication work, what is involved in building a website, and what all the terminology really means. At the end of the course, students will have a clear understanding of all that is required to build, maintain, and use a website.

Website Project Management

MGMT X471.10 (1.5 units)

This course covers the process of planning and managing a website project through all the different stages: requirements, design, implementation, deployment and maintenance. Primary topics include planning, communication with team members, design documentation, risk management, audience analysis, test plans, and estimating of cost, size and schedule. Additional topics addressed include the website development process, configuration management, quality assurance, metrics, and continuous process improvement. *Prerequisites: Excellent analytical and organizational skills; must enjoy using computers and have a knack for figuring things out on the computer.*

Web Design and Development Capstone Course

I&CSCI X471.12 (2 units)

This is the capstone course in the Web Design and Development program. This course pulls out pieces from each of the core classes to help participants learn the process of creating a professional website while working on their own web project. From assessing and creating a design document, to creating a wireframe, to creating templates, drafts, and final versions of

your website, participants will follow a structured design process to plan and build a professional website. Upon completion of this course, participants will understand the web development process and will have a completed website that can serve as part of a professional portfolio. *Prerequisites: HTML and JavaScript Programming.*

Elective Courses, Web Development Track (6 units)

Web Development Using PHP

I&CSCI X471.11 (2.5 units)

Interested in creating e-commerce capabilities and taking advantage of social media concepts such as blogging, bookmarking, and other collaboration and communication functions on your website? PHP is an open source language available to facilitate the creation of these functions. Students taking this course will become familiar with PHP utilities and learn how to interact with a database to create these web applications. With PHP you can create dynamic and original web sites that can interact with databases and files, handle email, and do many other things that HTML cannot. At the end of the course, students will know how to utilize PHP to add simple scripts to their sites, as well as how to build custom scripts to use in their sites, like an HTML templating system, contact us forms, and shopping carts. *Prerequisites: HTML and JavaScript. Programming skills are helpful but not required.*

Introduction to Flash Design

I&CSCI X471.09 (1.5 units)

Flash™ is part of Adobe Systems' suite of creative digital media products and a ubiquitous presence on the world's personal computers. It allows you to create high-impact, rich web content for display on virtually any computer regardless of the browser of platform being used. This course introduces Flash™ design and shows you how to include Flash™ objects on your web pages. You'll learn how to make your web designs even more compelling with moving images and other dynamic effects. You must have access to Adobe Flash in order to complete this course.

Database Programming for the Web Using MySQL

I&C SCI X471.66 (1.5 units)

This is a follow up course to the Web Programming with PHP course. In this course, students will learn how to connect their Web site into a MySQL database. This includes install the database, designing and creating a database, and using PHP to perform actions on the MySQL database like updating records or retrieving records to be displayed in a Web site. Students will also learn how to manage a MySQL database including configuration, performance tuning, and troubleshooting. *Prerequisites: X471.11 Web Development Using PHP or equivalent.*



Building Dynamic and Interactive Websites: Using JavaScript, AJAX, and DHTML

I&CSCI X471.08 (1.5 units)

Learn how to use dynamic HTML (DHTML) to enhance your web pages with dynamic effects that include animations, event captures (such as keystrokes and mouse-overs), drag-and-drop effects, and much more. You'll learn fundamental DHTML concepts and explore the most important components individually in detail. At the end of the course, you'll have the opportunity to apply what you've learned to create dynamic web pages of your own. *Prerequisites: HTML and JavaScript Programming.*

Creating Web Applications with HTML5

I&CSCI X471.10 (2 units)

HTML5 makes it easier for web developers to place and manage interactive elements on a web page. This course will expand on the core features of HTML and JavaScript to highlight the various capabilities built-in to HTML5 for creating robust and rich Internet Applications. Topics include how to create graphics and animations, how to embed audio and video, how to provide offline storage and access, how to determine visitor's location, and how to add semantic elements into your web site. *Prerequisites: HTML and JavaScript Programming.*

Creating Websites for Mobile Devices

I&CSCI X471.67 (1.5 units)

Learn to prepare business and personal websites for mobile access. This course focuses on how to effectively plan, create, and deliver websites for mobile devices, such as cell phones, PDAs, and BlackBerrys. Combining the power of XHTML and CSS, gain the skills to create simple, effective, mobile-friendly websites that extend their online presence and contribute to the bottom line. *Prerequisites: HTML and JavaScript Programming.*

Elective Courses, Web Design Track (6 units)

Web Graphics and Photo Editing with Photoshop

I&CSCI X471.05 (2 units)

Attractive graphics can make a web page come alive. Photo editing and enhancing adds to a website's appeal. Create and edit customized images for use in web pages, online photo albums, web blogs and more. Learn how to create image roll-overs, logos, and banner ads. Explore color theory, bandwidth considerations, and intelligent image utilization. The software for this course is Adobe Photoshop, the industry standard for image editing. Students will also work with a variety of image utilities available on the web. (You must have access to Adobe Photoshop in order to complete this course.)

Overview of Rich Internet Applications with Flash, Java, and Silverlight

I&CSC X471.62 (1.5 units)

The internet has quickly turned from a place where companies can post information to a place where companies can provide services and functionality similar to what can be done on a desktop. These state-of-the-art Web applications are called Rich

Internet Applications (RIAs). Many vendors have jumped on the bandwagon to create frameworks to support these requirements. This course is designed to introduce students to Rich Internet Applications, including what they are, what they consist of, and common technologies for building them.

New Media Tools and Technology

MGMT X461.51 (2.5 units)

New media is any form of electronic communication that takes place over the Internet such as blogs, wikis, social networking and bookmarking sites, portals, live streaming, and social annotation. This course helps you navigate the new media landscape and better understand how these tools can be applied in business and in personal situations. You'll gain an overview of the current tools available, as well as the technologies that drive them such as Rich Internet Applications, cloud computing, and software service. This course also examines the structure of a Web 2.0 company and strategies for monetizing websites. Marketing professionals, engineers, sales and customer support staff who want to harness the power of new media for enhanced business success will benefit from this course. Others with a personal interest in learning about new media can also benefit from this course.

Graphic Design Concepts for the Web

I&CSCI X471.65 (1.5 units)

Web design is a very different medium than print design, so it is important to learn how you can create and utilize elements on your Web site which are optimized specifically for the web. These concepts include what graphic size and resolution to use, what colors are available to use on the Web and which color schemes are appropriate, as well as what visual elements are acceptable on the Web.

Effective Information Design for the Web

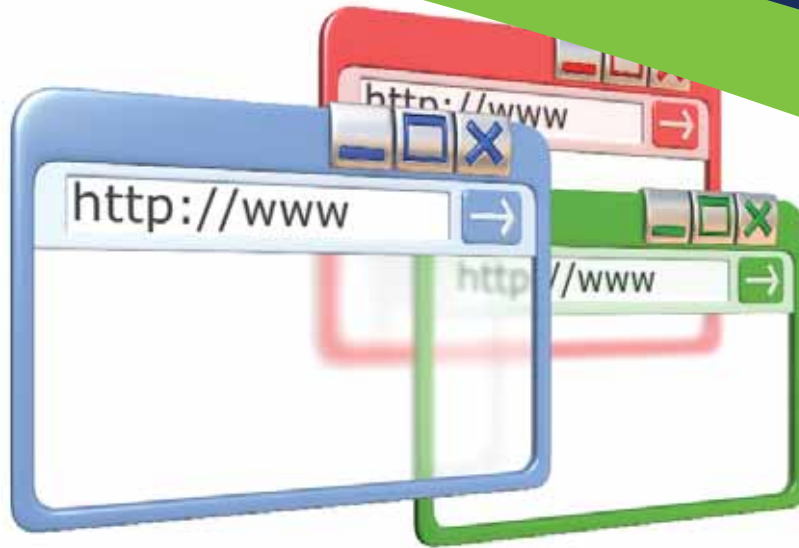
I&CSCI X471.64 (1.5 units)

People today rely on the web for many different kinds of information including bank statements, airline schedules, product information, and so much more. Consequently, it is important to present your information in a clear, compelling, and meaningful manner so that your website visitors can find what they need quickly. This course shows you how to combine your web content with effective design principles to achieve page layouts that are appropriate for the type of content being presented and that ensure your website visitors have a positive experience.

Website Administration and Security

I&CSCI X471.63 (2 units)

This course is designed to provide an overview of internet systems and security for anyone who wants to either be a Web Server Administrator or just understand more about how a Web Server works. Students will learn administration techniques and fundamental concepts of security which are needed to succeed as a Web Server Administrator. Topics include server installation, configuration and administration of Web servers, securing Web servers, and performance tuning.



Advisory Board

Bobby Smith, Architect, TIBCO Spotfire

Eli Bozorgzadeh, Associate Professor, Computer Architecture and Design, UCI Donald Bren School of Information and Computer Sciences

Jeremy Greenberg, Former Student, UCI Web Design and Development program

Kevin Hanegan, Director of Educational Services, TIBCO Software

Mike Kollen, CTO/Architect, eSync Training

Peter VanRysdam, CEO & Founder, 352 Media Group

Shawn Hanegan, Aeronautical Engineer, Mitre Corporation

Steve Schumacher, Vice President, Technical Advancement and Corporate Communications, The Irvine Company

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