Web Technologies

Courses

CWEB 101   Introduction to the Web using Internet Explorer* (1 Hour)
Prerequisites: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or appropriate score on an assessment test

This course will introduce the student to commands and techniques required to effectively use the resources of the World Wide Web. Topics to be covered will include how to browse, search and retrieve information on the Internet using Internet Explorer, how to create and manage "favorites", how to protect computers from viruses, how to send and receive electronic mail, and how to create a basic home page. 1 hr. lecture/wk.

CWEB 103   Professional Skills for the Digital Developer* (3 Hours)
Prerequisites or corequisites: RDG 126 or College Reading Readiness

Upon successful completion of this course, the student will be able to demonstrate effective communications and professional skills important to a career in digital development. Topics covered include the use of technology to achieve effective written and verbal communication skills, team management, project management, and problem solving skills. Current and relevant legal, ethical, and governmental issues important to a career in digital development are also covered. 3 hrs. lecture/wk.

CWEB 104   Introduction to Web Pages: Expression Web* (1 Hour)
Prerequisites or corequisites: CWEB 101

This course will cover the commands and techniques required to create and revise web pages using Expression Web. Topics to be covered will include researching, planning, and creating a web site, identifying the purpose of Extensible Hypertext Markup Language (XHTML) and Cascading Style Sheets (CSS), inserting background color, inserting and editing images, creating lists, creating and applying style sheets, inserting files, creating internal and external links, and publishing a web site. 1 hr. lecture/wk.

CWEB 105   Introduction to Web Pages: Dreamweaver* (1 Hour)
Prerequisites: CWEB 101

This course will cover the commands and techniques required to create and revise Web pages using Dreamweaver. Topics to be covered will include basic text layout, viewing and identifying basic HTML tags, creating a site map, formatting a Web page, applying background color, inserting images and sounds, creating ordered and unordered lists, inserting files, and creating links on Web pages. 1 hr. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

CWEB 110   XHTML and CSS* (3 Hours)
Prerequisites or corequisites: RDG 126 or College Reading Readiness

This course will cover the essential skills needed to create Web sites, with a focus on using Extensible Hypertext Markup Language (XHTML) and Cascading Style Sheets (CSS). Students will be introduced to the concepts, foundations, syntax and structure of XHTML. Additional topics include the use of File Transfer Protocol (FTP) as a way to publish a web site, validation, and Web standards established by the World Wide Web Consortium (W3C) and other organizations. 3 hrs. lecture/wk.

CWEB 111   Intermed Web Concepts/Techniques using Explorer* (1 Hour)
Prerequisites: CWEB 101

This course is a continuation of CWEB 101, Introduction to the Web using IE, and will cover intermediate commands and techniques required to use various Web-based tools and programs. Topics to be covered will include using complex search strategies; finding people, businesses and e-mail addresses on the Web; accessing and using Newsgroups; joining and leaving mailing lists; using a Web-based chat facility; locating and downloading freeware and shareware programs; and identifying online backup and storage options. 1 hr. lecture/wk.

CWEB 114   Intermediate Web Pages: Expression Web* (1 Hour)
Prerequisites: CWEB 104

This course is a continuation of CWEB 104, Introduction to Web Pages: Expression Web, and will cover intermediate-level commands and techniques required to create and enhance web sites using Expression Web. Topics to be covered will include creating and modifying dynamic links, working with tables, creating forms, and using templates to design web pages. 1 hr. lecture/wk.

CWEB 115   Intermediate Web Pages: Dreamweaver* (1 Hour)
Prerequisites: CWEB 105

This course will cover intermediate-level commands and techniques required to create and enhance a Web page using Dreamweaver. Topics to be covered will include tracing images, layers, converting layers to tables, custom tables, cascading style sheets, templates and libraries, and publishing a Web site. 1 hr. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

CWEB 120   Internet Applications: Fireworks I* (1 Hour)
Prerequisites: CPCA 105 or CPCA 106 or waiver test scores

This course is an introduction to the fundamentals, tools and techniques of Web imaging using Macromedia Fireworks. Students will gain an understanding how to import, manipulate, optimize and animate Web graphics. Students will combine graphics with HTML and JavaScript creating image slices, navigation menus and hotspots. 1 hr. lecture/wk.

CWEB 121   Introduction to Mobile Media* (3 Hours)
Prerequisites: CWEB 110

Mobile devices outnumber desktop and laptop computers three to one worldwide. This course will cover practical guidelines, standards, techniques and best practices for building mobile products from start to finish, including basic design and development principles for all mobile devices and platforms. 3 hrs. lecture/wk.

CWEB 125   Introduction to Dynamic Web Pages: Dreamweaver* (1 Hour)
Prerequisites: CWEB 115 and CPCA 114

This course explores the Dreamweaver database environment and dynamic site concepts. Students will learn how to create, sort and display recordset content in a Web page. Students will create search applications, allowing movement between master and detail record pages, and to display the results of database searches. 1 hr. lecture/wk.

CWEB 126   Survey of Web Technologies* (2 Hours)
Prerequisites or corequisites: CWEB 101

This course introduces students to the careers, technologies, and skills used in the field of Web technology. Students will also publish files to Web servers and start a professional Web-based portfolio. 2 hrs. lecture/wk.

CWEB 130   Introduction to Flash* (1 Hour)
Prerequisites: CPCA 161 or CWEB 104 or CWEB 105

This course will cover the commands and techniques available to add Flash content to Web pages and CD-ROMs. Topics covered will include using drawing tools, manipulating text with text tools, adding and modifying sound, creating animation and publishing work. This class will be taught in a classroom with both Macintosh and Windows computers. 1 hr. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

CWEB 136   Introduction to PHP* (1 Hour)
Prerequisites: (CWEB 101 and CPCA 114) or (CS 134 or CIS 134)

This course covers the commands and techniques available to add functionality to Web pages using PHP (Hypertext Preprocessor). Students will build client-side PHP scripts with variables, functions, expressions, methods and events to validate forms and enhance Web page functionality. The basics of server-side scripting are introduced. 1 hr. lecture/wk.

CWEB 140   Intermediate Flash* (1 Hour)
Prerequisites: CWEB 130

This course will build on the fundamental skills learned in CWEB 130, Introduction to Flash. Topics will include complex animation techniques; interactivity with simple frame actions; and interactivity using objects such as buttons, hot spots and movie clips. 1 hr. lecture/wk.

CWEB 146   PHP with MySQL* (1 Hour)
Prerequisites: CWEB 136

This course covers the commands and techniques required to connect a Web page to a relational database using PHP (Hypertext Preprocessor) and MySQL (database management system). Students define and build a relational database using MySQL, then use PHP scripts as well as SQL in a Web page to connect to the database to edit, delete, and enter records. 1 hr. lecture/wk.

CWEB 150   Advanced Flash* (1 Hour)
Prerequisites: CWEB 140

This course will build on the skills learned in CWEB 131, Intermediate Flash. Students will do projects to control movie clips, sound, external data, multiple timelines and text fields. Some ActionScripting will be introduced. 1 hr. lecture/wk.

CWEB 160   Introduction to JavaScript* (1 Hour)
Prerequisites: CWEB 104 or CWEB 105 or CWEB 106 or CPCA 161 or (CS 134 or CIS 134)

This course will cover the commands and techniques available to add functionality to Web pages using JavaScript. Topics to be covered include integrating JavaScript into an HTML file, creating pop-up windows, adding scrolling messages, validating forms and enhancing the use of image and form objects. 1 hr. lecture/wk.

CWEB 166   Introduction to eXtensible Markup Language* (3 Hours)
Prerequisites: CWEB 160

This course will introduce and explain the use of XML(eXtensible Markup Language) documents to encapsulate and transfer data across the Internet. Students will learn to use document type definitions, attributes and entities, and XML schemas to build valid and useful XML documents. CSS(Cascading Style Sheets) will be introduced to format the XML documents. JavaScript will be used to incorporate programming instructions into the XML document. 3 hrs. lecture/wk.

CWEB 167   Introduction to Asynchronous JavaScript and XML* (1 Hour)
Prerequisites: CWEB 160

This course will introduce and explain the use of AJAX technology. AJAX is a loose acronym for Asynchronous JavaScript and XML(eXtensible Markup Language). AJAX is not a technology itself but is a combination of XHTML(eXtended Hypertext Markup Language), CSS(Cascading Style Sheets) and JavaScript?s use of the DOM (Document Object Model). Students will use AJAX to build dynamically load data into a web page, to build lists on the fly, include auto complete functionality and other interactive features to a web page. 1 hr. lecture/wk.

CWEB 170   Intermediate JavaScript* (1 Hour)
Prerequisites: CWEB 160

This course builds on the skills learned in CWEB 160, Introduction to Web Scripting: JavaScript. Students will learn to use JavaScript in their Web pages to build menus and navigational structures. They will also learn to use intermediate techniques for cookie manipulation and storage. Complex use of operators (Bitwise, Assignment, Comparison, Arithmetic and Boolean) will be explained. 1 hr. lecture/wk.

CWEB 180   E-Commerce Using JavaScript* (1 Hour)
Prerequisites: CWEB 170

This course builds on the skills learned in CWEB 160, Introduction to Web Scripting: JavaScript, and CWEB 161, Intermediate JavaScript. The student will build a complete e-commerce site that will support online ordering and payment with JavaScript. 1 hr. lecture/wk.

CWEB 190   ActionScript for Flash* (1 Hour)
Prerequisites: CWEB 150

This course will teach the basic skills needed to use ActionScripts in Flash movies. Students will build interactivity into their movies using ActionScript. They will also manipulate data and control Flash objects such as movie clips. ActionScript logic and functions will be explained. 1 hr. lecture/wk.

CWEB 200   Podcasting I* (3 Hours)
Prerequisites: CWEB 101

Podcasting is a web-based broadcast medium. Audio files (most commonly in MP3 format) are made available online in a way that allows software to automatically detect the availability of new files (generally through RSS [Really Simple Syndication]), and download the files for listening at the user's convenience. This course will cover how to create sound, use the appropriate software, develop a show, distribute a podcast, and build an audience. Students will begin by learning the basics of blogging and develop their blogs into audio and/or video podcasts. More advanced topics include audio editing, podcasting on the go, and videocasting. 3 hrs. lecture/wk.

CWEB 205   Search Engine Optimization* (1 Hour)
Prerequisites: CWEB 104 or CWEB 105

This course will cover how to optimize a Website to maximize search engine ranking. Upon completion of the course students will be able to identify and implement effective Web site designs and strategies for search engine optimization. 1 hr. lecture/wk.

CWEB 212   Technical Interface Skills* (3 Hours)
Prerequisites: CWEB 110

This course will cover the skills needed to successfully develop Information Architecture (IA) blueprints from concept to completion. Students will use fundamental visual principles, perception, color, composition and typography to analyze and modify existing IA plans while keeping consistent structure. They will create complementary visuals that maintain a client?s brand while working through the modification process. Students will review and memorize the critical universal usability rules and basic visual design principles quintessential of a design team and to implement an aesthetic vision through every step of development. 3 hrs. lecture/wk.

CWEB 221   Design and Development for Mobile Web* (3 Hours)
Prerequisites or corequisites: CWEB 121

This course provides practical knowledge to effectively plan, engineer, and deliver websites for Mobile devices, such as phones, PDA's, Blackberry's, etc. Students will combine XHTML and CSS (Cascading Style Sheets) to create accessible Mobile websites. 3 hrs. lecture/wk.

CWEB 230   Introductory E-Commerce Applications* (1 Hour)
Prerequisites: CWEB 101 or CPCA 141

This course will introduce students to e-commerce in a software-driven, hands-on way. It will use software tools to discuss and explore a variety of e-commerce activities. Students will examine an extensive list of e-commerce sites, such as those that support purchasing, delivery, support, auction, business-to-business, virtual community and Web-portal business goals. They will examine e-commerce stores that incorporate advertising, marketing, branding, and business efficiency goals. They will explore how to populate a store catalog, create site-wide navigation links and publish a store. 1 hr. lecture/wk.

CWEB 240   Intermediate E-Commerce Applications* (1 Hour)
Prerequisites: CWEB 230

This course will use software tools such as Internet Explorer and Netscape Communicator to discuss and explore a variety of intermediate e-commerce activities. For example, students will examine e-commerce security issues, such as cookies, privacy risks and property threats, including copyright issues, viruses, security policies, encryption, digital signatures and transaction integrity. Students will study electronic payment systems, including script, electronic checks, credit card purchases, electronic wallets, smart cards and electronic cash. Students will explore international and legal issues, such as language and custom barriers, laws and regulations, and tax considerations. They will also explore ethical issues, such as trust and defamation issues. Finally, they will explore careers in electronic commerce. 1 hr. lecture/wk.

CWEB 250   Rich Internet Applications I* (3 Hours)
Prerequisites: CIS 134

This course provides students with hands-on, practical experience to build functional, well architected front-end for a Rich Internet Application (RIA). Students will build complex applications using industry-accepted best practices. 3 hrs. lecture/wk.

CWEB 260   CSS Techniques Projects* (3 Hours)
Prerequisites: CWEB 110

Students will apply Cascading Style Sheet (CSS) techniques through the use of professional, advanced Web site development projects. Industry-standard Hypertext Markup Language (HTML) semantic markup practices and presentation separation through CSS is emphasized. CSS topics include professional syntax practices, formatting, and layout skills. Advanced CSS skills for float, positioning, alignment, and image formatting are covered. 3 hrs. lecture/wk.

CWEB 270   Web Analytics* (3 Hours)
Prerequisites: CWEB 110

Upon successful completion of this course, students should be able to implement and apply web analytics techniques. Topics to be covered include web traffic analysis, data collection methodologies, report analysis, best-practices configuration, and search engine optimization. 3 hr. lecture/wk.

CWEB 290   Web Technologies Capstone* (3 Hours)
Prerequisites: CWEB 270 (Web Technologies Track) or CWEB 221 (Mobile Web Track) or CWEB 250 (Rich Media Applications Track)

This is the capstone course in the Web Technologies AAS degree program. In this course, students will explore the latest trends in web technology. Students will also review materials and practice skills from their previous courses in the program in order to create a flexible portfolio web presence which will showcase their expertise in web technologies. In addition to creating the portfolio, students will explore career opportunities in web technology and practice resume-writing and interviewing skills. 3 hrs. lecture/wk.

CWEB 292   Special Topics: (1-3 Hour)
This course periodically presents specialized topics in Web Technologies and Interactive Media that are not available in the regularly offered curriculum. Special Topics may be repeated for credit, but only on different topics. 1 - 3 hrs. lecture/wk.