

WEB PAGE DEVELOPMENT AND DESIGN

Job readiness

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This curriculum is designed for students who want to specialize in Web page development and design. Completion of the 2 year program leads to an Associate in Applied Science (AAS) degree in Web Page Development and Design and completion of the 1 year program leads to a Certificate in Web Page Development and Design.

This curriculum includes industry standard CIW (Certified Internet Webmaster) Certifications and Paths. Over the course of two years, Web candidates take a series of four CIW exams based on their study of Web languages such as XHTML, CSS, JavaScript, XML, PHP and Java. Candidates can earn individual certifications in CIW Foundations, CIW Site Designer, CIW E-Commerce, and CIW JavaScript. Successful completion of any of these four exams results in the designation of Certified Internet Web Master (CIW). The level of mastery depends on the exam taken and how many exams taken in a particular CIW track. The curriculum also offers training and certification in software Adobe Dreamweaver, Flash, InDesign, Illustrator and Photoshop.

Students should have a working knowledge of word processing and basic concepts of the personal computer. This program is designed for an entry-level student. Students completing the program will be able to create and maintain Web pages for most organizations.

Special Note: Specified courses within the curriculum require separate purchases of specific software in order to complete course requirements. Students will be required to obtain access to the software for the duration of the course, whether by purchase of the software for their home computer, completing course requirements working in the BSC labs, or other means. For specific software requirements for each course, please see the course description in the BSC catalog.

FRESHMAN FALL

Desktop Publishing (InDesign) (CIS 110)	3
Adobe Acrobat/Microsoft Outlook (CIS 120).....	3
Web Foundations (CIW) (CIS 151).....	3
Networking Essentials (CIW) (CIS221).....	3
Graphic Design (PhotoShop) (CIS 232)	3
General Education Elective.....	3
**Communications required course -	
ENGL 110 Composition I	
Total credits	18

FRESHMAN SPRING

Cascading Styles Sheets (CSS) (CIS 152)	3
Advanced Desktop Publishing (Illustrator) (CIS 210)	3
Electronic Publishing (Dreamweaver) (CIS 230)	3
Search Engine Optimization (CIS 231).....	3
General Education Elective	3
*Bus/Math/Sci/Tech recommended course –	
CSCI 121 Beginning Visual Basic	
Total credits	15

SOPHOMORE FALL

Vector Graphics and Web Animation (Flash) (CIS 233)	3
Advanced Web Design (CIW) (JavaScript) (CIS 250)	3
XML (CIS 252)	3
Computer Science I (CSCI 160)	4

General Education Electives	3
*Communications	
Total credits	16

SOPHOMORE SPRING

Site Design (CIW) (CIS 251)	3
PHP (CIS 253)	3
E-Commerce (CIW) (CIS254)	3
General Education Elective	6
*Bus/Math/Sci/Tech	
*Arts/Hum	
Total credits	15

SUGGESTED ELECTIVES: CREDITS

Cooperative Education/Internship (CIS 197-297)	1-3
PBL (BOTE 116)	1

WEB PAGE DEVELOPMENT AND DESIGN Certificate

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This curriculum is designed for those students who want add Web page development and design to their background. Students must complete the following 33 credits listed below. Completion of Web Page Development and Design Certificate program leads to a Certificate in Web Page Development and Design.

FALL CREDITS

Desktop Publishing (InDesign) (CIS 110)	3
Adobe Acrobat/Microsoft Outlook (CIS 120).....	3
Web Foundations (CIW) (CIS 151).....	3
Networking Essentials (CIW) (CIS221).....	3
Graphic Design (PhotoShop) (CIS 232)	3
ENGL 110 Composition I	3
Total credits	18

SPRING CREDITS

Cascading Styles Sheets (CSS) (CIS 152)	3
Advanced Desktop Publishing (Illustrator) (CIS 210)	3
Electronic Publishing (Dreamweaver) (CIS 230)	3
Search Engine Optimization (CIS 231).....	3
Site Design (CIW) (CIS 251)	3
Total credits	15

COURSE DESCRIPTIONS

CIS 110 Desktop Publishing Fall Only 3 credits

An introductory layout and design course using Adobe InDesign to produce a variety of desktop publishing application projects. The use of XML tools in InDesign will be addressed. Students should have keyboarding and word processing skills before enrolling in the class.

CIS 120 Adobe Acrobat/Microsoft Outlook Fall Only 3 credits

An introductory course on Portable Document Format (PDF) documents using Adobe Acrobat Professional. An emphasis will be placed on use on the World Wide Web. Also, electronic communications will be discussed with the study of Microsoft Outlook.

CIS 151 Web Foundations Fall Only 3 credits

Students will learn how to create and manage their own Web pages using Hypertext Markup Language (HTML), Extensible HTML (XHTML), and CSS. Students will learn to write code manually, as well as use graphical user interface (GUI) authoring tools. Students will further learn the importance of marketing and implementing fundamentals design concepts along with validating their HTML or XHTML code. Other concepts covered include the tasks involved in various Information Technology (IT) job roles, Internet connection methods, Internet protocols, the Domain Name System (DNS), URLs, customization of Web browsers, plug-ins, e-mail, search engines, security and project management.

Course prepares students to write the Internet Business and Site Development Foundations sections of the CIW Foundations exam. These two CIW exam sections are required and students will be assessed an exam fee.

*Final grade is not based on whether student passes or fails certifications.

CIS 152 Cascading Style Sheets Spring Only 3 credits

Students will learn how to format Web pages using Cascading Style Sheets (CSS). Concepts covered are the anatomy of a CSS rule, inline, embedded and external style use, contextual selectors, classes, ids, pseudo-classes, font and text properties, style inheritance, the box model, and basic and advanced page layout.

Prerequisite(s): CIS151 Web Foundations or CIS230 Electronic Publishing or instructor's consent.

CIS 210 Advanced Desktop Publishing Spring only 3 credits

An advanced layout and design course using Adobe InDesign to produce a variety of desktop publishing application projects. Students should have keyboarding, word processing and desktop publishing skills before enrolling in this class.

Prerequisite(s): CIS 110 or instructor's consent.

CIS 221 Networking Essentials Fall & Spring 3 credits

This course introduces students to the concepts and terminology of data communications, local area and wide area networks, communications hardware, standards, media, signaling concepts, data communication, error prevention, detection and correction.

Course prepares students to write the Network Technology Foundations section of the CIW Foundations exam. This CIW exam section is required and students will be assessed an exam fee.

*Final grade is not based on whether student passes or fails certification.

CIS 230 Electronic Publishing Fall & Spring 3 credits

Students will learn how to create and manage a professional-quality Web sites using Macromedia Dreamweaver. Concepts that will be covered are learning how to work with text, images, links, forms, templates, behaviors, library items and publication of Web sites. Students will further learn how to use Dreamweaver effectively for Web page layout using tables, frames, layers and/or CSS.

CIS 231 Search Engine Optimization (SEO) Spring Only 3 credits

Students will learn the basic principles of optimizing websites for improved performance in search engine results, ultimately enhancing the marketability of their website products and/or services. Students will further develop a basic understanding of the history of search engines, differences in search engine and directory results, and applied practices in structuring HTML and page content to increase the website's visibility to the consumer.

Prerequisite(s): CIS151 Web Foundations or CIS230 Electronic Publishing and ENGL110 College Comp I or instructor's consent.

CIS 232 Graphics Design Fall Only 3 credits

Students will learn how to use Adobe PhotoShop. Concepts covered include working with layers, making and enhancing selections, incorporating and adjusting color, adding and transforming type, creating special effects with filters, using painting tools, clipping masks, paths and shapes, creating portfolios, galleries, buttons, and animations, liquefying, annotating and automating images, and optimizing images for the Web.

CIS 233 Vector Graphics and Web Animation Fall Only 3 credits

Students will learn how to design vector graphics for animations, presentations, and Web sites using Macromedia Flash. Concepts covered include animation, tweening, layers, guides, masks, symbols, publishing movies, and ActionScript.

CIS 250 Advanced Web Design Fall Only 3 credits

Students will learn how to add JavaScript to their Web pages. Concepts covered include variables, expressions, functions, methods, objects, events, control structures, windows, forms, frames and cookies.

Course prepares students to write the CIW JavaScript Fundamentals Exam. This CIW exam is required and students will be assessed an exam fee.

*Final grade is not based on whether student passes or fails certification.

Prerequisite(s): CIS 151 and CSCI 122 or instructor's consent.

CIS 251 Site Design Spring Only 3 credits

This course focuses on theory, design and Web construction, along with information architecture concepts, Web project management, scenario development and performance evaluations. Students will further learn how to create and manage Web sites with tools such as Microsoft FrontPage, Macromedia Dreamweaver and Flash, Dynamic HTML, and various multimedia and CSS standards. Students will also implement the latest strategies to develop third-generation Web sites, evaluate design tools, discuss future technology standards, and explore the incompatibility issues surrounding current browsers. This course provides a balance of training in theory, technology, project management, and hands-on development.

Course prepares students to write the CIW Site Designer Exam. This CIW exam is required and students will be assessed an exam fee.

*Final grade is not based on whether student passes or fails certification.

Prerequisite(s): CIS151 and CIS221 or CIW Foundations certification or instructor's consent.

CIS 252 XML Fall only 3 credits

This course will introduce students to Extensible Markup Language (XML). Concepts covered include document type definitions (DTDs), schemas, namespaces, XSL, SPath, Xlink, and XSLT. Other topics covered include the use of XML in application software, such as Microsoft Office 2003.

Prerequisite(s): CIS 151 or instructor's consent.

CIS 253 PHP Spring Only 3 credits

Students will learn how to design dynamic, data-driven Web pages using server-side scripting.

Prerequisite(s): CSCI122 or CIS250 or instructor's consent.

CIS 254 CIW E-Commerce Strategies and Practices Spring Only 3 credits

This course will prepare students to take the CIW E-commerce Strategies and Practices exam, the third level of exams needed for the Master CIW Designer certification. During this course, students will be taught the concepts of e-commerce and doing business online, including technical concerns and differences from traditional commerce.

Prerequisite(s): CIS 251 or CIW Site Designer certification or instructor's consent.

CIS 294 Independent Study 1-3 credits

Independent or directed study of topics in computer information systems. Department chairperson approval is required.

CIS 195-295 Service Learning 1-3 credits

Service learning may be accomplished by one of three methods: Joining a club that has a public service component, doing volunteer work at a non-profit organization, or taking a course that links public service with its curriculum. BSC-ENR.

CIS 197-297 Cooperative Education/Internship 1-3 credits

No more than 6 semester hours may be counted toward technical electives. Students get on-the-job experience under qualified supervision in computer applications and office technology occupations. Work hours are arranged by the employer, adviser, and student. Student progress is checked by oral and written reports from the employer. Student-advisor conferences are held to discuss progress and/ or problems. All co-op experiences are graded on a satisfactory/unsatisfactory basis. Department chairperson approval is required.

CIS 299 Special Topics in Computer Information Systems BD 1-3 credits

Repeatable up to six semester hours. An examination of special topics in computer information systems. BSC-ENR.

BOTE116 Student Leadership Practicum (Phi Beta Lambda) 1 credit

Phi Beta Lambda provides opportunities for leadership training, personal development, community service, and further development of business-specific skills. PBL is open to any BSC student who has completed one business course during previous semesters or is concurrently enrolled in at least one business course as part of their degree program. Students may enroll in course more than one semester.