



BUSINESS

Computer Information Systems – Web Development

Careers

Web developers create and update web sites for businesses and other organizations. There are two main aspects to web development: design and programming. Design is concerned with the appearance and usability of the site. Programming relates to the functionality of the site – that is, does the site do what it is supposed to. In order for a website to be effective, both these skills are needed. A good website is attractive, easy to use and functions correctly.

In designing websites, Web developers apply the principles of graphic design. Everything about the site – the layout, the colors, the type, the images and other multimedia – are carefully selected to help communicate the content of the site effectively as well as make it easy for the site's visitors to find what they want. It is not enough that a site looks good; the site's appearance should complement the content of the site. A very serious news site should look different than a site promoting a new videogame, because they contain very different kinds of content. Web development differs from traditional graphic design in that web developer can incorporate many different multimedia elements into a Web page – audio, video and animation. As such, web developers need to be able to work with different forms of digital multimedia.

Of course, it does not matter how well a site looks if it does not function properly. Web developers also write the programs (instructions) which controls what the Web page does – to make sure, for example, that when one places an online order, the order is processed correctly, the right items are sent to the right person and the correct account is charged. The Web developer performs pretty much the same tasks as any

software developer – writing instructions to tell the computer what to do to process the user's data, interacting with databases and other software.

The basic core of languages web developers are familiar with are HTML (the language that specifies the content of web pages), CSS (the language that specifies the appearance of web pages), and JavaScript (which handles basic page behavior). Additionally, for more extensive programming, familiarity with other technologies such as ASP, .NET, PHP, Java, and relational databases is required. An exciting part of Web development is that it is constantly changing, and Web developers must keep up with new technologies.

For a Web development project to succeed, it requires more than technical skills. Communication skills and a general familiarity with business are required to ensure that the web site developed will indeed meet the needs of the organization in question. In addition, substantial planning is required to determine the best way for the site to be developed. Many decisions need made. What should the pages look like in order to clearly communicate the site's message? How can the pages be organized to make it easy for users to find what they want? What multimedia elements should be used? How should the site process the data the user enters? How should this site interact with a database and other software? What specific technologies to use? Once these issues are decided, then the technical skills are used to implement what was designed. Lastly, the site needs tested and then updated. In this sense, a Web development project is no different than any other software development project.

Job Outlook

The computer scientists and database administrators occupation is expected to grow 37 percent from 2006 to 2016, much faster than average for all occupations. Employment of these computer specialists is expected to grow as organizations continue to adopt and integrate increasingly sophisticated technologies. Job increases will be driven by very rapid growth in computer systems design and related services, which is projected to be one of the fastest growing industries in the U.S. economy.

Earnings

Robert Half International, a firm providing specialized staffing services, noted the following salary ranges for computer-related occupations in their 2007 Salary Guide: Web developer \$54,750 - \$81,500.

Related Careers

- Data mining
- Database development
- End-user support
- Graphic design
- Systems analysis
- Testing and quality assurance
- The “business side” (e.g. marketing) of a computer company
- Web design and development

Web Development Careers

Educational Opportunities in Computer Information Systems-Web Development at LCCC

The following programs may be completed in two years, if taken on a full-time basis. Many LCCC students choose to study on a part-time basis. Students in the associate of applied business in computer information systems – network communication technology program complete courses in computer information systems, communications, English, math, business administration, accounting, physical science, psychology or sociology, computer diagnostics and repair and Cisco certification.

Associate of Applied Business in Computer Information Systems – Web Development

The Web Development major prepares students for development, administration and support positions in the emerging digital economy. Students learn to design and develop Internet applications in a client/server environment. Additional topics covered include integrating Internet and enterprise-wide databases, middleware issues, building robust Internet applications and designing dynamic Web portals. A variety of elective courses are available to augment the program.

Associate of Applied Business in Computer Information Systems – Network Communications Technology

This program prepares students for network and microcomputer support positions in business and industry. Students learn to design, install, test and manage local and wide area networks. Additional topics covered in this program are software installation, automated connectivity, security and option CISCO/Cisco Certified Network Associate (CCNA) preparation and Web page design.

Associate of Applied Business in Computer Information Systems – Software Development

This program prepares students for programming on computer platforms from personal computers to mainframes. Students learn to design and develop software using the procedural and object-oriented languages most commonly used in business. Additional topics covered in this program are database design and development and an introduction to networking.

Microsoft Certification

Enrolling in a Microsoft authorized academic training program and receiving certification means you meet Microsoft's highest standards. Certification requirements include passing six examinations which are administered and taught by Microsoft.

Cisco Certification

The computer information systems department is an authorized Cisco Regional Academy. Therefore, you can enroll in Cisco certification classes that will prepare you for the Cisco Certified Network Associate (CCNA) examination. This cluster of four classes can be completed either as credit or non-credit classes. If you are interested in taking the classes and receiving college credit, you must check the credit-course schedule under the computer information systems course heading.

About Lorain County Community College

Lorain County Community College continues to experience enrollment growth because attending LCCC is the most economical way to reach educational goals that help graduates become valuable players in the future economic growth of the county and region. Because of the variety and quality of learning opportunities LCCC provides, enrollment has grown 78 percent since 2000.

Lorain County Community College, which opened in 1963, is one of Ohio's leading colleges delivering credit programs at its Elyria campus and outreach centers in downtown Elyria, Lorain, Wellington and Brunswick. Plus more than 200 courses are offered via distance-learning education options, and the Associate of Arts degree can be completed entirely online.

Students can choose from more than 80 educational programs. Students can complete the first half — and sometimes more — of a bachelor's degree through LCCC's University Partnership, which brings eight universities to the LCCC campus offering 40 bachelor's and master's degree programs. Students can upgrade, retrain and improve current life skills.

In addition to providing a great education for those who enter college with aspirations of a degree, LCCC helps those who have changed their career goals, who want to broaden their horizons, and who want to return to work. LCCC provides learning and training for those who want to move up but find they need new or improved skills for the kind of professional opportunities they seek.

LCCC faculty is recognized locally and nationally for their work as professors and in other areas. They all have advanced degrees and real world experience and understand their primary responsibility at LCCC is to teach classes.

LCCC is fully accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, which is the regional accrediting authority for Ohio colleges and universities. Since opening its doors, LCCC has served more than 300,000 people. More than six million students enroll annually in credit courses at America's community colleges, representing about 46 percent of all students in higher education and about 56 percent of all first-time college entrants.

Many of These Programs Qualify for Work-Based Learning:

- Paid internships and co-op job opportunities
- Work experience related to your major
- College credits
- Technical electives
- Career success

Program Qualifications

- Enrollment in a qualified academic program
- Completion of at least 15 LCCC credit hours with six credits within your major
- An overall GPA of at least 2.0 and at least 2.5 within your major

For more information, contact LCCC Employment and Career Services at (440) 366-4076, e-mail careers@lorainccc.edu or visit www.lorainccc.edu/careers.



**Lorain County
Community College**



**The University
Partnership**

of Lorain County Community College

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