

Careers

The growth of the Internet and expansion of the World Wide Web, the graphical portion of the Internet, have generated a variety of occupations related to design, development, and maintenance of Web sites and their servers. For example, webmasters are responsible for all technical aspects of a Web site, including performance issues such as speed of access, and for approving site content. Internet developers or Web developers, also called Web designers, are responsible for day-to-day site design and creation.

Salary

Salaries for Internet-related occupations ranged from \$47,000 to \$68,500 for Webmasters. Median annual earnings of specialists employed in computer system design and related services were \$63,910. Starting salaries in 2005 for intranet developers ranged from \$51,750 to \$74,520.

Job Outlook

The development of new technologies usually leads to demand for various workers. The expanding integration of Internet technologies by businesses, for example, has resulted in a growing need for specialists who can develop and support Internet and intranet applications.

The growth of electronic commerce means more establishments use the Internet to conduct their business online. This translates into a need for information technology professionals who can help organizations use technology to communicate with employees, clients, and consumers. Explosive growth in these areas also is expected to fuel demand for specialists knowledgeable about network, data, and communications security.

Education & Training Options

Montgomery College offers an associate of applied science degree (A.A.S.) in Web careers and several certificate programs. (See reverse for Web careers curricula.)

■ Degree

There are three degree tracks for a Web Careers A.A.S.: (1) Web content, design, and marketing; (2) Web programming; and (3) Web technologies. This program is intended to prepare students for positions involving designing and maintaining professional Web sites, programming for the Web, Web security, and e-commerce. The curriculum prepares students to qualify for professional Web certification.

■ Certificate

The Internet games and simulation certificate presents students with an introduction to the skills needed to explore this emerging area of Web game development. Students will be exposed to core Web development skills and will learn Web gaming and computer simulation technology and computer graphics technology.

Contact @ MC

Germantown Campus240-567-7738
Rockville Campus240-567-5185
www.montgomerycollege.edu/Departments/CA/

Web Careers Curricula

Degrees, Certificates, and Letters of Recognition

Montgomery College is authorized by the Maryland Higher Education Commission (MHEC) to offer four degrees (associate of arts, associate of science, associate of applied science, and associate of arts in teaching) and certificates. In addition, the College recognizes students who satisfactorily complete certain course sequences with letters of recognition.

Some curricula are offered at all campuses, whereas others are limited to one or two. When a curriculum is offered at a specific campus, it is indicated by G for Germantown, R for Rockville, or TP for Takoma Park/Silver Spring.

Admission to Montgomery College is open to all.

Math, English, and reading assessment tests are required prior to registering. (Some students may be exempt from assessment. Consult the *Montgomery College Catalog* for criteria.) Financial aid and scholarships are available to qualified candidates.

Take the next step.

Complete an Application for Admission form (online @ www.montgomerycollege.edu/admissions/mcadmiss.htm) or call 240-567-5000 for information.

Web Careers A.A.S.: 353

General Education and Other Requirements (23 credit hours)

EN 101	Techniques of Reading and Writing I	3
	English foundation	3
	Health foundation	1
	Mathematics foundation	3
	Speech foundation	3
	Arts or humanities distribution	3
	Behavioral and social sciences distribution	3
	Natural sciences lab distribution	4

Web Design Track: 353D (37 credit hours)

GD 110	Digital Tools for the Graphics Profession	4
CA 272	Professional Web Site Development	4
GD 121	Fundamentals of Graphic Design I	3
GD 214	Photoshop for Graphics and Photography	4
GD 218	Graphic Design for the Web	2
CA 125	Introduction to Flash	4
GD 219	Advanced Graphic Design for the Web	2
CA 299	Web Certificate/Degree Portfolio	3
	Electives: Select from the following courses (11 credits minimum): CA 225, CA 273, CA 274, CA 276, CA 277, CA 278, CG 210, GD 216, PG 161	11

Total credit hours for Web design track 60

Web Development Track: 353E (39 credit hours)

GD 110	Digital Tools for the Graphics Profession	4
GD 218	Graphic Design for the Web	2
CA 141	Introduction to Database Applications	
	or	
CS 270	Introduction to SQL Using Oracle	3
CA 272	Professional Web Site Development	4
CA 273	Advanced Professional Web Technologies	3
CA 274	E-Commerce Web Sites: Administration, Security and Marketing	3
CA 276	Dynamic HTML with JavaScript	
	or	
CA 277	XML and Its Applications	3

Web Careers Curricula

(continued)

Web Careers A.A.S.: 353 (continued)

CA 278	Web Application Development Using ColdFusion	4
CA 288	Advanced Web Application Development with ColdFusion	3
CA 299	Web Certificate/Degree Portfolio	3
CA 125	Introduction to Flash	4
	Electives: Select from the following courses (3 credits minimum): BA 101, CA 225, CA 240, CA 269, CA 276, CA 277, CA 282, CS 140, CS 213, CS 269	3

Total credit hours for Web development track 62

Web Programming Track: 353B (38[39] credit hours)

GD 110	Digital Tools for the Graphics Profession	
	or	
CA 106	Computer Use and Management	3(4)
CA 272	Professional Web Site Development	4
CA 273	Advanced Professional Web Technologies	
	or	
CA 276	Dynamic HTML with JavaScript	3
CA 277	XML and Its Applications	3
CA 278	Web Application Development Using ColdFusion	4
CS 140	Introduction to Programming	3
CA 141	Introduction to Database Applications	
	or	
CS 270	Introduction to SQL Using Oracle	3
CS 213	Java Programming Language	3
CS 214	Advanced Java Programming	3
CS 220	Client Server Programming with Java	3
CS 216	UNIX/LINUX Operating System	3
	Electives: Select from the following courses (3 credits minimum): CA 225, CA 240, CA 269, CA 274, CA 282, CA 288, CS 210, CS 226, CS 269	3

Total credit hours for Web programming track 61(62)

Internet Games and Simulation Certificate (R): 232

GD 110	Digital Tools for the Graphics Profession	4
CA 190	Introduction to Game and Simulation Development	4
CA 272	Professional Web Site Development	4
CA 273	Advanced Professional Web Technologies	3
CG 120	Computer Graphics: Art and Illustration I	4
CG 210	Computer Animation and Illustration*	4
CA 125	Introduction to Flash	4
CA 225	Flash ActionScript for Web Publishing and Gaming	4
	Electives: Select two from the following groups:	
	Design and Animation Electives:	
	CG 121, CG 222, GD 214, GD 218, GD 219, PR 131, PR 232, TR 101	
	Programming and Technical Electives:	
	EN 109, CA 141, CA 195, CA 269 or CS 269, CA 276, CA 277, CA 278, CS 140, CS 213	4-8

Total credit hours 35-39

* Students enrolled in this certificate may waive CG 121 (normally a prerequisite to CA 210) without having to substitute an additional class.

(more)

Web Careers Curricula

(continued)

Web Content, Design, and Marketing Certificate (R): 229

GD 110	Digital Tools for the Graphics Profession	4
CA 272	Professional Web Site Development	4
GD 121	Fundamentals of Graphic Design I	3
GD 214	Photoshop for Graphics and Photography	4
GD 218	Graphic Design for the Web	2
CA 125	Introduction to Flash	4
GD 219	Advanced Graphic Design for the Web	2
CA 299	Web Certificate/Degree Portfolio	3
Electives: Select one of the following courses: AR 101, AR 103, CA 225, CA 273, CA 274, CA 276, CA 277, CA 278, CG 210, GD 216, PG 161 3-4		
		Total credit hours 29

Web Programming Certificate: 230

GD 110	Digital Tools for the Graphics Profession	
or		
CA 106	Computer Use and Management	3(4)
CA 272	Professional Web Site Development	4
CA 273	Advanced Professional Web Technologies	
or		
CA 276	Dynamic HTML with Java Script	3
CA 277	XML and Its Applications	3
CA 278	Web Application Development Using ColdFusion	4
CS 140	Introduction to Programming	3
CA 141	Introduction to Database Applications	
or		
CS 270	Introduction to SQL Using Oracle	3
CS 213	Java Programming Language	3
CS 214	Advanced Java Programming	3
CS 220	Client Server Programming with Java	3
CS 216	UNIX/LINUX Operating System	3
Electives: Select one of the following courses: CA 225, CA 240, CA 269, CA 274, CA 282, CA 288, CS 210, CS 226, CS 269		
		Total credit hours 38(39)

Web Technologies Certificate (G,R): 231

GD 110	Digital Tools for the Graphics Profession	4
GD 218	Graphic Design for the Web	2
CA 141	Introduction to Database Applications	
or		
CS 270	Introduction to SQL Using Oracle	3
CA 272	Professional Web Site Development	4
CA 273	Advanced Professional Web Technologies	3
CA 274	E-Commerce Web Sites: Administration, Security and Marketing	3
CA 276	Dynamic HTML with Java Script	
or		
CA 277	XML and Its Applications	3
CA 278	Web Application Development Using ColdFusion	4
CA 288	Advanced Web Application Development Using ColdFusion	3
CA 299	Web Certificate/Degree Portfolio	3
CA 125	Introduction to Flash	4
Electives: Select one of the following courses: BA 101, CA 225, CA 240, CA 269, CA 276, CA 277, CA 282, CS 140, CS 213, CS 269		
		Total credit hours 39