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COLLEGE

Multimedia Studies Programs

Stay close. Go far.

Technology and Computer Studies Division

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Hagerstown Community College Multimedia Studies Programs

HAGERSTOWN
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C O L L E G E

Getting Started

WHY SHOULD I TAKE A MULTIMEDIA COURSE AT HCC?

The multimedia programs at HCC are designed to provide students with the state-of-the-art education they will need in order to compete in a constantly changing environment. Students have access multiple computer labs and software, which includes: Adobe Illustrator, Photoshop, Flash, Dreamweaver, InDesign, and 3D Studio Max. With hands-on instruction, students get the knowledge they need in a one-on-one environment with insight from people who work directly in the field. HCC faculty members are experienced professionals in their areas of expertise and all have held positions in the working world prior to teaching at HCC.

WHERE DO I START?

The entry level course in Graphic Design Technology is GDT-112 Computer Graphics. This course is also a part of the Simulation and Digital Entertainment (SDE) degrees, as well as the Web and Multimedia degrees (WEB). SDE-102 and WEB-102 are also included in other degree programs. Try out any or all of the entry level courses and then decide where you would like to focus your studies.

WHERE DO I GO FROM HERE?

On the next few pages you will see some of the program choices that are available. Each program has a track set up so that you can take the courses you need in the spring and the courses you need in the fall. Be sure to meet with an academic advisor so you can take advantage of course planning and register for the courses in the proper sequence. Program coordinators in Graphic Design Technology, Simulation and Digital Entertainment, and Web and Multimedia Technology are available for appointments as well.

BUILD YOUR EDUCATION ONE STEP AT A TIME

The programs are designed to allow students to progress from a Letter of Recognition (LOR) to a Certificate and on to a two-year degree, if desired. Courses completed in the LOR and Certificate programs can be applied to the degree programs in this area.

WHAT IS GRAPHIC DESIGN?

Graphic design is the practice or profession of designing print or electronic forms of visual information. Graphic designers create a wide assortment of material, such as posters, magazines, catalogs, greeting cards, cartoons, maps, Web sites and brochures like the one you are reading right now. Graphic design skills are used in many visual fields: print production, illustration, art direction, photography, graphic art, Web graphics and design, and animation. If you would like to get paid for being creative, this may be the perfect field for you.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS CAREER?

Demand for graphic design work will continue to increase from advertisers, publishers and computer design firms through the year 2014, according to the U.S. Bureau of Labor Statistics. As demand for interactive media design increases, graphic designers with Web site design and animation experience will be especially needed. Examples of interactive media include Web sites, video games, cell phones, personal and digital assistants (PDAs), and other technologies.

WHERE DO GRAPHIC DESIGNERS WORK?

Graphic designers are hired by a variety of businesses, including design studios, advertising agencies, public relations firms, newspapers, and publishers.

WHAT DO GRAPHIC DESIGNERS EARN?

Earnings depend on experience, education, and geographic location. The local average salary for a graphic design specialist in this area is $41,734. The local average salary for a senior graphic design specialist is $48,984 (source: *www.bls.gov/oco*).

WHY SHOULD I COME TO HCC

HCC offers degrees, certificates and letters in Graphic Design Technology. These programs include hands-on skill building using the latest technology. The programs focus on the principles of visual communication, drawing, , typography, and page layout.

The program includes internship opportunities and practice in HCC's in-house graphic design studio. Throughout the program, you will be developing a portfolio containing projects that have been published in print and online. HCC faculty will work with you to ensure a portfolio that professionally displays what you have accomplished at HCC.

WHAT IS THE DIFFERENCE BETWEEN THE A.A.S AND THE A.S. DEGREES IN GRAPHIC DESIGN TECHNOLOGY?

The A.A.S. Degree is designed for the student who is planning on going directly into the field after graduation. This student takes more graphic design courses than do those pursing the A.S. degree. This program also includes Graphic Design II, in which students complete their portfolio, resume, and promotional package in order to better market themselves to prospective employers.

The A.S. Degree is designed for the student who will be transferring to a four-year institution and choosing graphic design as their area of concentration within an art degree program. This degree includes basic foundation courses that would be taken in any university undergraduate art program, but includes fewer courses in their concentration area as those will be taken as part of their undergrad work at their transfer college during their junior and senior years. This allows the transfer student to concentrate only on upper level courses once they've transferred to their four-year institution.

HOW CAN I GET MORE INFORMATION?

Contact:
Ellen Smith
Associate Professor,
Graphic Design Technology
elsmith@hagerstowncc.edu
301-790-2800, ext. 203

A.S. Degree Option in
Graphic Design

The graphic design transfer degree will prepare students for transfer to a four-year institution to pursue a bachelor of fine arts degree with a concentration in graphic design. While most courses are transferable to a four-year institution, students who wish to transfer should discuss their choice of courses with an academic advisor from the transfer institution.

General Education Requirements   31-33 Credits
Arts/Humanities
ART   101   Introduction to Visual Arts 3
Select another course from approved General Education course list...3

Behavioral/Social Sciences
Select two courses in different disciplines from approved
General Education course list...6

Biological/Physical Science
Select two courses from approved General Education course list—
one must be a laboratory course..7-8

English
ENG   101   English Composition..3
ENG   112   Technical Writing I 3
OR
ENG   102   Composition and Literature ....(3)

Information Literacy
GDT   112   Computer Graphics..3

Mathematics
MAT   101   College Algebra or another MAT course from approved list.....................3-4

Program Requirements   21 Credits
ART   102   Two Dimensional Design 3
ART   103   Drawing I..3
ART   108   Three Dimensional Design 3
ART   115   Photography I 3

Choose any three courses from the following list:
GDT/ART 116   Digital Imaging 3
GDT/ART 142   Computer Illustration: Adobe Illustrator 3
GDT/ART 143   Digital Layout/Prepress 3
GDT   146   Graphic Design I 3
GDT   215   Typography 3
GDT   246   Graphic Design II 3
WEB   101   Web Design I 3

Electives   **12 Credits**
Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements.

Recommended courses are listed below:

ART	104	Painting I	(3)
ART	203	Drawing II	(3)
ART	209	Figure Drawing	(3)
GDT	215	Typography	(3)
GDT	220	Digital Video and Audio	(3)
GDT	246	Graphic Design II	(3)
GDT	269	Internship I	(3)
IST	102	Introduction to Information Technology	(3)
SDE	102	Multimedia Authoring	(3)
SPD	103	Public Speaking	(3)
SPD	108	Introduction to Human Communication	(3)
WEB	101	Web Design I	(3)
WEB	110	Web Design II	(3)

Degree Requirement... 64-66

A.A.S. Degree
Graphic Design Technology

General Education Requirements			21-22 Credits

Arts/Humanities

ART	101	Introduction to Visual Arts	3

Behavioral/Social Sciences

Select from approved General Education course list 3

Biological/Physical Science

Select from approved General Education course list 3-4

English

ENG	101	English Composition	3
ENG	112	Technical Writing I	3

OR

SPE	103	Public Speaking	(3)

OR

SPD	108	Introduction to Human Communication	(3)

Information Literacy

GDT	112	Computer Graphics	3

Mathematics

MAT	101	College Algebra	3

Program Requirements			33 Credits
ART	102	Two Dimensional Design	3
ART	103	Drawing I	3
GDT/ART	116	Digital Imaging	3
GDT/ART	142	Computer Illustration: Adobe Illustrator	3
GDT/ART	143	Digital Layout/Prepress	3
GDT	146	Graphic Design I	3
GDT	215	Typography	3
GDT	220	Digital Video and Audio	3
GDT	246	Graphic Design II	3
SDE	102	Multimedia Authoring	3
WEB	101	Web Design I	3

Electives			14-15 Credits
ART	104	Painting I	(3)
ART	108	Three Dimensional Design	(3)
ART	115	Photography I	(3)
ART	203	Drawing II	(3)
ART	209	Figure Drawing	(3)
GDT	269	Internship I	(3)
WEB	110	Web Design II	(3)
WEB	210	Web Developer II	(3)

Degree Requirement.. **68-69**

Certificate
Graphic Design Technology

The graphic design technology certificate consists of specialized courses and general education offerings. It has two basic goals; first, to upgrade the job performance of the working graphic designer, and second, to initiate the professional career development of those entering the graphic design field. A one-year certificate program provides for formal academic preparation without loss of credit if an associate of applied science degree is desired.

Program Requirements			**27 Credits**
ART	103	Drawing I	3
GDT/ART	112	Computer Graphics	3
GDT/ART	116	Digital Imaging	3
GDT/ART	142	Computer Illustration: Adobe Illustrator	3
GDT/ART	143	Digital Layout/Prepress	3
GDT	146	Graphic Design I	3
GDT	215	Typography	3
GDT	246	Graphic Design II	3
WEB	101	Web Design I	3

Certificate Requirement **27**

Letter of Recognition
Graphic Design Technology
Computer Graphic Artist

This sequence of courses prepares an individual to work as a computer graphic artist. These skills are useful when artwork is being prepared for publication in print, Web, or multimedia.

Program Requirements			**9 Credits**
GDT	112	Computer Graphics	3
GDT/ART	116	Digital Imaging	3
GDT/ART	142	Computer Illustration: Adobe Illustrator	3

Letter of Recognition Requirement **9**

Letter of Recognition

Graphic Design Technology
Graphic Production Specialist

This sequence of courses prepares an individual to work as a graphic production specialist. These skills are useful when artwork is being prepared for publication in an offset print environment.

Program Requirements			**9 Credits**
GDT	112	Computer Graphics	3
GDT/ART	116	Digital Imaging	3
GDT/ART	143	Digital Layout/Prepress	3

Letter of Recognition Requirement **9**

WHAT IS SIMULATION AND DIGITAL ENTERTAINMENT?

Simulation and Digital Entertainment (SDE) is an area of study where students can learn to take real events and represent them in a virtual environment using computers. Students also learn to break down complex ideas into a visual medium where they can be seen in an easy and understandable way.

Interactivity has become a large part of the SDE field. This includes the large and growing field of video games. Video game making has become a strong staple both in entertainment and in education. HCC's program helps students take a concept and produce an image or an animation. In conjunction, interactive components are taught to enhance the visual experience.

After completing this program, students can look forward to careers such as application, game, and software development, software testing, quality assurance and tools software engineering, animation, artificial intelligence design, programming, game or user interface design, or becoming a 3D, CG, environment, or concept artist.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS CAREER?

Employment in SDE is large and growing. In the Maryland/Washington D.C. area, over 80 game and simulation companies already exist. This number could go over 100 by the year 2011. Maryland is the number one state on the east coast for game developers.

Game development has grown so large that it now grosses more than the movie-making industry. Billions of dollars are being acquired by game and simulation companies annually and provide good salaries to people throughout Maryland.

WHAT CAN I EXPECT TO EARN AS A GAME DEVELOPER?

According to MSNBC.com and *Game Developer Magazine*, the median income salary for someone in the video game business is $73,000. For entry level positions, Animation Arena states that entry level employees can expect to earn between $32,000 and $65,000.

WHY SHOULD I ATTEND HCC?

HCC is currently building a foundation with colleges, high schools and businesses. Our focus is to give students advanced skills attractive to companies and four-year universities.

HCC uses state-of-the-art computers and software to give students what they need in order to compete in a constantly changing environment. We have multiple computer labs and software that includes Flash, 3DS Max, Game Engines, Compilers, Photoshop and Illustrator. With hands-on instruction, students can get the knowledge they need in a one-on-one environment, with insight from people who work directly in the field.

HCC is also working with four-year universities to accept the transfer of credits from HCC. Successful educational, Web application, and gaming companies in the area have been asked what they need in potential employees. By giving students the desired skills local employers are looking for, strong relationships will be built to ensure students' success. Internships are also available.

WHAT ARE THE PROGRAM OPTIONS?

HCC currently offers a certificate program (33 credits) and an A. A. S. degree (66-69 credits).

HOW CAN I GET MORE INFORMATION?

Contact:
David Maruszewski
Instructor, Simulation
and Digital Entertainment
dpmaruszewski@hagerstowncc.edu
Phone: 301-790-2800, ext. 361
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A.A.S. Degree

Information Systems Technology Concentration 5: Option in Simulation and Digital Entertainment

The Simulation and Digital Entertainment (SDE) concentration provides students with the skills to design and develop computer games for fun, advertising, education, and simulations. Course concentration will be game design, programming, documentation, structured design principles, problem solving, and business ethics. Classes are conducted with hands-on labs.

Completion of the Information Systems Technology degree must be within four years of catalog date due to constantly changing technology. Students who do not complete degree within four years will fall under the latest catalog.

General Education Requirements*			**21-23 Credits**
Arts/Humanities			
Select from approved General Education course list			3
Behavioral/Social Sciences			
Select from approved General Education course list			3
Biological/Physical Science			
Select from approved General Education course list			3-4
English			
ENG	101	English Composition	3
ENG	102	Composition and Literature	3
		OR	
ENG	112	Technical Writing I	(3)
Information Literacy			
IST	102	Introduction to Information Technology	3
Mathematics			
MAT	101	or another MAT course from approved list	3-4
Program Requirements			**30 Credits**
GDT	112	Computer Graphics	3
GDT/ART	116	Digital Imaging	3
GDT	142	Computer Illustration: Adobe Illustrator	3
SDE	102	Multimedia Authoring	3
SDE	104	Game Programming I	3
SDE	130	Introduction to Object-Oriented Programming	3

(Continued on next page)

A.A.S. Degree *(continued from previous page)*

Information Systems Technology Concentration 5: Option in Simulation and Digital Entertainment

SDE	201	Multimedia Algorithms	3
SDE	203	3D and Advanced Animation	3
SDE	205	Game Programming II	3
SDE	207	Multimedia Project Development	3

Electives   **15-16 Credits**

Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements. Select 15-16 elective credits from the following list.

ART	103	Drawing I	(3)
CAD	152	Computer-Aided Design I	(3)
ENG	114	Mythology	(3)
GDT	220	Digital Video and Audio	(3)
HIS	102	History of Civilization II	(3)
IST	132	Introduction to C and C++ Programming	(3)
IST	133	Visual Basic	(3)
MAT	102	Trigonometry	(3)
MAT	161	Precalculus	(3)
MAT	203	Calculus I	(3)
MAT	204	Calculus II	(3)
MAT	205	Calculus III	(3)
MUS	175	Introduction to Electronic Music	(3)
PHY	201	General Physics I	(4)
SDE	269	Internship I	(3)
SPD	103	Public Speaking	(3)
WEB	101	Web Design I	(3)
WEB	110	Web Design II	(3)
WEB	115	Web Developer I	(3)

Degree Requirement... 66-69

Certificate

Information Systems Technology
Simulation and Digital Entertainment

The Simulation and Digital Entertainment certificate consists of specialized courses. The program provides students with the skills to design and develop computer games for fun, advertising, education, and simulations. The courses in this program can all be applied toward the Simulation and Digital Entertainment option of the Information Systems Technology A.A.S degree program.

Program Requirements			**30 Credits**
IST	102	Introduction to Information Technology	3
GDT	112	Computer Graphics	3
GDT	114	Graphic Design I	3
GDT	116	Digital Imaging	3
SDE	102	Multimedia Authoring	3
SDE	104	Game Programming I	3
SDE	201	Multimedia Algorithms	3
SDE	203	3D and Advanced Animation	3
SDE	205	Game Programming II	3
SDE	207	Multimedia Project Development	3

Certificate Requirement 30

WHAT IS THE WEB AND MULTIMEDIA TECHNOLOGY PROGRAM?

In Web Design and Multimedia Technology, students learn about the planning, production and mechanical development, information structure, and visual design of Web sites. This program provides training for a variety of careers including Web designer, Web master, Web developer, and multimedia artist.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS CAREER FIELD?

According to 2009 U.S. Bureau of Labor Statistics outlined in the *Occupational Outlook Handbook:* The expansion of the Internet has created a diversity of occupations associated with design, development, and maintenance of Web sites and their servers. Rapidly changing technology has increased the demand for people with skills; because of this the employment outlook for a web design occupation is expected to increase by 36 percent over the next 10 years.

WHAT DO WEB DESIGNERS EARN?

The salary for Web designers depends on their experience, skills, location, and education. On average, most Web designers with an associate's degree earn about $47,000 per year and those who complete their bachelor's degree earn about $60,000 per year.

WHY CHOOSE HCC?

Web and Multimedia is an increasingly popular field of study. At HCC we offer the latest technology and software with hands-on instructions to give students a competitive edge in a constantly changing environment. Student will learn the art of design as well as the science of programming. Students earning the A.A.S degree will complete a web design internship with a local multimedia company where they will gain valuable on-the-job experience. In addition, second year students will complete a group service learning project for a local non-profit organization. By the end of the program, students will have working production Web sites to add to their portfolios.

WHERE CAN I GET MORE INFORMATION?

Contact:
Sean Maher
Instructor, Web Design and
Multimedia Technology
stmaher@hagerstowncc.edu
301-790-2800, ext. 204

A.A.S. Degree
Web and Multimedia Technology

The AAS degree in Web and Multimedia Technology provides training for a variety of careers in this field. The program consists of specialized Web and multimedia design and development courses, as well as general education offerings. Students successfully completing this program will be proficient in the areas of Web site production, administration, and programming. They will also have acquired technical skills in the areas of visual design, communication, and content development. A student completing the Web and Multimedia Technology degree program will be prepared to work as a Web master, Web developer, Web designer, or Web graphic and multimedia artist.

General Education Requirements			21-22 Credits

Arts/Humanities
Select from approved General Education course list 3

Behavioral/Social Sciences
Select from approved General Education course list 3

Biological/Physical Science
Select from approved General Education course list 3-4

English
ENG	101	English Composition	3
ENG	102	Composition and Literature	3

Information Literacy
IST	102	Introduction to Information Technology	3

Mathematics
MAT	101	College Algebra	3

Program Requirements			40 Credits
BUS	101	Introduction to Business Organization and Management	3
GDT	112	Computer Graphics	3
GDT	116	Digital Imaging	3
IST	101	Basic Keyboarding	1
IST	107	Database Management	3

OR

IST	173	Database Fundamentals	(3)
IST	109	UNIX/Linux Operating System	3
SDE	102	Multimedia Authoring	3
STU	106	Professionalism in the Workplace	1
WEB	101	Web Design I	3
WEB	110	Web Design II	3
WEB	115	Web Developer I	3
WEB	205	Web Server Administration	2
WEB	210	Web Developer II	3
WEB	215	Interactive Media	3
WEB	269	Internship I	3

A.A.S. Degree *(continued from previous page)*
Web and Multimedia Technology

Electives   **6 Credits**
Approved courses are listed below. Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements. Select 6-7 elective credits from the following list:

ART	102	2D Design	(3)
ART	108	3D Design	(3)
ENG	112	Technical Writing I	(3)
GDT	114	Graphic Design I	(3)
IST	132	Introduction to C and C++ Programming	(3)
IST	133	Visual Basic	(3)
IST	134	Introduction to JAVA Programming	(3)
IST	154	Networking Basics	(3)
IST	173	Database Fundamentals	(3)

Degree Requirement 67-68

Certificate
Web and Multimedia Technology
Web Applications Development

The Web Applications Development certificate helps to prepare for positions where Web page development must be supplemented with e-commerce functionality. Skills include Web page design, graphics, database connectivity, client/server development, TCP/IP concepts, and Web server/file system support.

Program Requirements   **24 Credits**

IST	101	Basic Keyboarding	1
IST	102	Introduction to Information Technology	3
		OR	
GDT	112	Computer Graphics	3
IST	107	Database Management.	3
		OR	
IST	173	Database Fundamentals	(3)
IST	108	Microsoft Operating System	3
		OR	
IST	109	UNIX/Linux Operating System	(3)
WEB	101	Web Design I	3
WEB	110	Web Design II	3
WEB	115	Web Developer I	3
WEB	205	Web Server Administration	2
WEB	210	Web Developer II	3

Certificate Requirement 24

Letter of Recognition

Web and Multimedia Technology: Web Design

This sequence of courses is for students who need basic computer, Internet, and entry-level skills in Web design. Credits earned in this sequence can be applied toward the Web certificate and associate degree program.

Program Requirements   **9 Credits**

GDT	112	Computer Graphics	3
WEB	101	Web Design I	3
WEB	110	Web Design II	3

Letter of Recognition Requirement...**9**

Certificate

Web and Multimedia Technology
Web/Multimedia Development

The Web/Multimedia Development certificate consists of specialized courses designed to develop knowledge and skills in the use of tools, equipment, traits, attitudes, and behaviors that are desirable for workers in this occupation. This certificate program provides for formal academic preparation without loss of credit if an associate of applied science degree is desired.

Program Requirements   **25 Credits**

GDT	112	Computer Graphics	3
GDT	114	Graphic Design I	3
GDT/ART	116	Digital Imaging	3
SDE	102	Multimedia Authoring	3
STU	106	Professionalism in the Workplace	1
WEB	101	Web Design I	3
WEB	110	Web Design II	3
WEB	115	Web Developer I	3
WEB	215	Interactive Media	3

Certificate Requirement **25**

Letter of Recognition

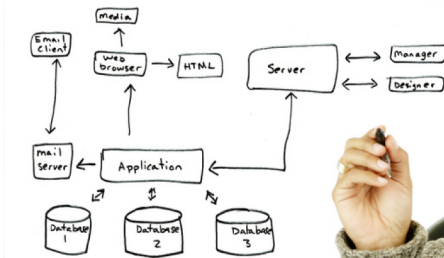# Web and Multimedia Technology: Web Site Development

The Web site Development letter of recognition helps to prepare for an entry level position designing Web pages and developing Web sites. Skills include basic Web page design, graphic/media file manipulation and data integration. Credits earned in this sequence can be applied to the Web applications development certificate.

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