

## COMPUTERS AND DIGITAL MEDIA

### Program Overview – Computer Information Systems

MCC's Computer Information Systems Program prepares students for entry-level positions in the computer field, including programming and help desk positions.

In addition to a core of computer information system courses at MCC, students complete general education and business requirements, developing a well-rounded skill set—skills that today's employers are looking for in computer programmers and support people:

- A logical thought process
- Attention to detail

- The ability to communicate using non-computer terms
- The ability to work in small groups
- The ability to meet deadlines and work under pressure
- Good communication skills, dependability, reliability and willingness to work as part of a team

**The primary purpose of an Associate in Applied Science degree is to prepare students for employment. The AAS degree is not designed specifically for transfer; however, there are opportunities to apply some coursework or the whole degree to a bachelor's degree program. For more information, see an academic advisor and the department chair.**

### Requirements for the Associate in Applied Science (AAS) in Computer Information Systems

Curriculum: OCC 120	Credit Hours		
<b>General Education Core</b>			
<b>Communications</b> 2 courses	6	(3) ENG 105 Technical Communications (3) ENG 151 Composition I	(3) ENG 152 Composition II (3) SPE 151 Intro to Speech
<b>Humanities &amp; Fine Arts</b> 1 course	3	<b>Humanities</b> <i>Select from the following prefixes or course numbers:</i> ENG (does not include: 105, 151, 152, 088-099) FRE GER (3) JRN 152 Intro to Mass Communication (3) JRN 155 Newswriting (3) JRN 165 Intro to Broadcasting (3) JRN 170 Feature Writing PHI (4) SPA 151 Elementary Spanish I (4) SPA 152 Elementary Spanish II (4) SPA 251 Intermediate Spanish I (4) SPA 252 Intermediate Spanish II (3) SPE 155 Interpersonal Communication (3) SPE 161 Small Group Communication	<b>Humanities cont'd.</b> (3) SPE 251 Intercultural Communication (3) SPE 265 Fundamentals of Oral Interpretation <b>Fine Arts</b> <i>Select from the following prefixes or course numbers:</i> ART (does not include: 166, 290, 299) (3) AET 141 Interior Design I (3) AET 142 History of Interiors (3) AET 241 Interior Design II (3) DGM 167 Graphic Design I (3) DGM 168 Computer Art I (3) JRN 180 Intro to Film MUS (does not include: 100, 104, 160, 161, 162, 201-218) THE
<b>Mathematics, Physical or Life Sciences</b> 1 course	3	<b>Mathematics</b> <i>Select from the following prefixes or course numbers:</i> MAT (100-level or above) <b>Sciences</b> <i>Select from the following prefixes or course numbers:</i> BIO	<b>Sciences cont'd.</b> CHM EAS (3) GEG 101 Physical Geography (3) GEG 123 Energy Resources (3) GEG 220 The Global Environment GEL (4) HRT 103 Intro to Plant Science (4) HRT 105 Intro to Soil Science PHY
<b>Social and Behavioral Sciences</b> 1 course	3	<i>Select from the following prefixes or course numbers:</i> ANT ECO (3) GEG 202 Geog. of Developed World (3) GEG 203 Geog. of Developing World (3) GEG 204 Economic Geography	HIS PLT PSY SOC
<b>Business Core</b>	6	(3) BUS 145 Business Applications of Mathematics (3) BUS 150 Intro to Business	

<b>Business Electives</b> 4 credit hours	4	Choose courses from catalog with prefix ACC, AOM, BUS, MGT or MKT (ACC 151 recommended)	
<b>Computer Information Systems Core</b>	24	(2) AOM 131 Intro to Windows Spreadsheet Applications (2) AOM 132 Intro to Database Systems (3) CIS 110 Computer Literacy (3) CIS 117 Intro to Programming (2) CIS 118 Intro to Windows	(1) CIS 125 Computer Ethics (2) CIS 133 Intermediate Database Systems (2) CIS 143 Intro to UNIX (3) CIS 155 Network Essentials (2) CIS 180 Computer Security Awareness (2) CIS 250 Internship in CIS
<b>Please select one of the following options: PROGRAMMING OR HELP DESK (17 credit hours required)</b>			
<b>PROGRAMMING Option</b>	9	(3) CIS 148 Intro to Java Programming (3) CIS 211 Intermediate Programming	(3) CIS 275 Systems Design
<b>PROGRAMMING Option Electives</b> 8 credit hours	8	(2) CIS 116 PC Operating Systems & Hardware (3) CIS 142 Web Scripting (2) CIS 145 Internet Technologies	(2) CIS 232 Advanced Database Systems (3) CIS 248 Intermediate JAVA Programming (1-4) CIS 290 Topics in CIS
<b>Total Option Credits</b>	17		
<b>Total Degree Credits</b>	66		
<b>OR</b>			
<b>HELP DESK Option</b>	10	(2) AOM 120 Word Processing I (2) CIS 116 PC Operating Systems & Hardware	(2) CIS 145 Internet Technologies (4) CIS 216 A+ Certification Prep
<b>HELP DESK Option Electives</b> 7 credit hours	7	(2) AOM 122 Word Processing II (1) AOM 130 Intro to Presentation Software (2) AOM 134 Intro to Desktop Publishing (2) AOM 231 Advanced Spreadsheet Applications (2) AOM 234 Advanced Desktop Publishing	(3) CIS 144 UNIX System Administration (4) CIS 156 Advanced Windows Workstation (4) CIS 157 Advanced Windows Server (3) CIS 275 Systems Design (1-4) CIS 290 Topics in CIS
<b>Total Option Credits</b>	17		
<b>Total Degree Credits</b>	66		

#### Other AAS Graduation Requirements:

- 2.0 minimum cumulative GPA at MCC upon completion of program
- 15 semester hours of program-specific coursework taken at MCC
- Completion of Intent to Graduate form
- Completion of end-of-program assessment as directed by this department

**For more information, contact the department chair: (815) 455-8732.**

#### Program Overview – Network Security

The Network Security Program will prepare students in the areas of IT networking and security. Students will develop a comprehensive understanding of networking protocols and security concepts. Students will also develop key skills in multiple areas of networking: service setup and maintenance; workstations; protocols; hardware; ethics; and security.

This program will prepare students for entry-level positions in the computer networking security field. This program will prepare individuals to become Network Administrators, Network Support Specialists, Security Specialists, Penetration Testers or Security Analysts.

One unique aspect of this program is that it incorporates preparatory work for professional certification tests. These professional certifications are from Cisco, Comp TIA, and Microsoft.

The program emphasizes additional skills that today's employer is seeking: people with good communication skills, dependability, reliability and the willingness to work as part of a team.

**The primary purpose of an Associate in Applied Science degree is to prepare students for employment. The AAS degree is not designed specifically for transfer; however, there are opportunities to apply some coursework or the whole degree to a bachelor's degree program. For more information, see an academic advisor and the department chair.**

## Requirements for the Associate in Applied Science (AAS) in Network Security

Curriculum: OCC 1282	Credit Hours		
<b>General Education Core</b>			
<b>Communications</b> 2 courses	6	(3) ENG 105 Technical Communications (3) ENG 151 Composition I	(3) ENG 152 Composition II (3) SPE 151 Intro to Speech
<b>Humanities &amp; Fine Arts</b> 1 course	3	<b>Humanities</b> <i>Select from the following prefixes or course numbers:</i> ENG (does not include: 105, 151, 152, 088-099) FRE GER (3) JRN 152 Intro to Mass Communication (3) JRN 155 Newswriting (3) JRN 165 Intro to Broadcasting (3) JRN 170 Feature Writing PHI (4) SPA 151 Elementary Spanish I (4) SPA 152 Elementary Spanish II (4) SPA 251 Intermediate Spanish I (4) SPA 252 Intermediate Spanish II (3) SPE 155 Interpersonal Communication (3) SPE 161 Small Group Communication	<b>Humanities cont'd.</b> (3) SPE 251 Intercultural Communication (3) SPE 265 Fundamentals of Oral Interpretation  <b>Fine Arts</b> <i>Select from the following prefixes or course numbers:</i> ART (does not include: 166, 290, 299) (3) AET 141 Interior Design I (3) AET 142 History of Interiors (3) AET 241 Interior Design II (3) DGM 167 Graphic Design I (3) DGM 168 Computer Art I (3) JRN 180 Intro to Film MUS (does not include: 100, 104, 160, 161, 162, 201-218) THE
<b>Mathematics, Physical or Life Sciences</b> 1 course	3	<b>Mathematics</b> <i>Select from the following prefixes or course numbers:</i> MAT (100-level or above)  <b>Sciences</b> <i>Select from the following prefixes or course numbers:</i> BIO	<b>Sciences cont'd.</b> CHM EAS (3) GEG 101 Physical Geography (3) GEG 123 Energy Resources (3) GEG 220 The Global Environment GEL (4) HRT 103 Intro to Plant Science (4) HRT 105 Intro to Soil Science PHY
<b>Social and Behavioral Sciences</b> 1 course	3	<i>Select from the following prefixes or course numbers:</i> ANT ECO (3) GEG 202 Geog. of Developed World (3) GEG 203 Geog. of Developing World (3) GEG 204 Economic Geography	HIS PLT PSY SOC
<b>Program Core</b>	45	(3) BUS 150 Intro to Business (3) MGT 150 Principles of Management (3) CIS 110 Computer Literacy (2) CIS 118 Intro to Windows (1) CIS 125 Computer Ethics (2) CIS 143 Intro to UNIX (3) CIS 155 Network Essentials	(4) CIS 156 Advanced Windows Workstation (4) CIS 157 Advanced Windows Server (4) CIS 185 Ethical Hacking (4) CIS 186 Security + Prep (4) CIS 216 A+ Certification Prep (4) CIS 255 Directory Services Infrastructure (4) CIS 256 Windows Network Infrastructure
<b>Program Electives</b>	5	(2) AOM 132 Intro to Database Systems (2) CIS 116 PC Operating Systems and Hardware	(3) CIS 144 UNIX System Administration (2) CIS 145 Internet Technologies (2) CIS 180 Computer Security Awareness
<b>Total Degree Credits</b>	65		

### Other AAS Graduation Requirements:

- 2.0 minimum cumulative GPA at MCC upon completion of program
- 15 semester hours of program-specific coursework taken at MCC
- Completion of Intent to Graduate form

- Completion of end-of-program assessment as directed by this department

**For more information, contact the department chair: (815) 455-8732.**

## Requirements for the Computer Skills Certificate

Curriculum: OCC 124	Credit Hours		
<b>Program Core</b>	16	(2) AOM 120 Word Processing I (1) AOM 130 Intro to Presentation Software (2) AOM 131 Intro to Windows Spreadsheet Applications (2) AOM 132 Intro to Database Systems	(3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware (2) CIS 118 Intro to Windows (2) CIS 145 Internet Technologies
<b>Total Certificate Credits</b>	16		

## Requirements for the Advanced Computer Skills Certificate

Curriculum: OCC 125	Credit Hours		
<b>Computer Skills Certificate</b>	16	(2) AOM 120 Word Processing I (1) AOM 130 Intro to Presentation Software (2) AOM 131 Intro to Windows Spreadsheet Applications (2) AOM 132 Intro to Database Systems	(3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware (2) CIS 118 Intro to Windows (2) CIS 145 Internet Technologies
<b>Program Electives</b>	9	(2) AOM 122 Word Processing II (2) AOM 134 Intro to Desktop Publishing (2) AOM 231 Advanced Spreadsheet Applications	(1) CIS 125 Computer Ethics (2) CIS 133 Intermediate Database Systems (3) CIS 155 Network Essentials (2) CIS 180 Computer Security Awareness
<b>Total Certificate Credits</b>	25		

## Requirements for the Computer Programmer Certificate

Curriculum: OCC 126	Credit Hours		
<b>Computer Skills Certificate</b>	16	(2) AOM 120 Word Processing I (1) AOM 130 Intro to Presentation Software (2) AOM 131 Intro to Windows Spreadsheet Applications (2) AOM 132 Intro to Database Systems	(3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware (2) CIS 118 Intro to Windows (2) CIS 145 Internet Technologies
<b>Program Core</b>	17	(3) CIS 117 Intro to Programming (1) CIS 125 Computer Ethics (2) CIS 133 Intermediate Database Systems (3) CIS 148 Intro to JAVA Programming	(3) CIS 211 Intermediate Programming (2) CIS 232 Advanced Database Systems (3) CIS 275 Systems Design
<b>Total Certificate Credits</b>	33		

## Requirements for the Cyber Security Certificate

Curriculum: OCC 1284	Credit Hours		
<b>Program Core</b>	21	(3) CIS 110 Computer Literacy (2) CIS 118 Intro to Windows (1) CIS 125 Computer Ethics (2) CIS 143 Intro to UNIX	(3) CIS 155 Network Essentials (2) CIS 180 Computer Security Awareness (4) CIS 185 Ethical Hacking (4) CIS 186 Security + Prep
<b>Total Certificate Credits</b>	21		

## Requirements for the Geek Technology Certificate

Curriculum: OCC 1285	Credit Hours		
<b>Program Core</b>	23	(3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware (2) CIS 118 Intro to Windows (2) CIS 145 Internet Technologies	(3) CIS 155 Network Essentials (4) CIS 156 Advanced Windows Workstation (4) CIS 216 A+ Certification Prep (3) SPE 155 Interpersonal Communications
<b>Total Certificate Credits</b>	23		

## Requirements for the Help Desk Certificate

Curriculum: OCC 123	Credit Hours		
<b>Program Core</b>	25	(2) AOM 120 Word Processing I (2) AOM 131 Intro to Windows Spreadsheet Applications (2) AOM 132 Intro to Database Systems (3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware	(2) CIS 118 Intro to Windows (2) CIS 145 Internet Technologies (3) CIS 155 Network Essentials (4) CIS 216 A+ Certification Prep (3) SPE 155 Interpersonal Communication
<b>Program Electives</b> 4 credit hours	4	(2) AOM 122 Word Processing II (1) AOM 130 Intro to Presentation Software (2) AOM 134 Intro to Desktop Publishing (2) AOM 231 Advanced Spreadsheet Applications (2) CIS 133 Intermediate Database Systems	(4) CIS 156 Advanced Windows Workstation (4) CIS 157 Advanced Windows Server (2) CIS 180 Computer Security Awareness (1) CIS 250 Internship in CIS (1-4) CIS 290 Topics in CIS
<b>Total Certificate Credits</b>	29		

## Requirements for the Networking Specialist Certificate

Curriculum: OCC 1281	Credit Hours		
<b>Program Core</b>	18	(3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware (2) CIS 118 Intro to Windows	(3) CIS 155 Network Essentials (4) CIS 156 Advanced Windows Workstation (4) CIS 157 Advanced Windows Server
<b>Program Electives</b> 8-9 credit hours	8-9	(1) CIS 125 Computer Ethics (2) CIS 143 Intro to Unix (4) CIS 185 Ethical Hacking (4) CIS 186 Security + Prep	(4) CIS 255 Directory Services Infrastructure (4) CIS 256 Windows Network Infrastructure Admin.
<b>Total Certificate Credits</b>	26-27		

## Requirements for the PC Support Specialist Certificate

Curriculum: OCC 128	Credit Hours		
<b>Program Core</b>	18	(3) CIS 110 Computer Literacy (2) CIS 116 PC Operating Systems & Hardware (2) CIS 118 Intro to Windows	(2) CIS 143 Intro to UNIX (3) CIS 155 Network Essentials (2) CIS 180 Computer Security Awareness (4) CIS 216 A+ Certification Prep
<b>Total Certificate Credits</b>	18		

## Requirements for the Webmaster Certificate

Curriculum: OCC 127	Credit Hours		
<b>Program Core</b>	27	(3) ART/DGM 168 Computer Art I (3) CIS 110 Computer Literacy (3) CIS 117 Intro to Programming (1) CIS 125 Computer Ethics (2) CIS 142 Web Scripting	(2) CIS 145 Internet Technologies (3) CIS 148 Intro to JAVA Programming (3) DGM 100 2D Animation (3) DGM 123 Digital 2D Design (3) DGM 235 Website Design
<b>Program Electives</b> 10 credit hours	10	(2) AOM 132 Intro to Database Systems (2) AOM 134 Intro to Desktop Publishing (3) ART/DGM 167 Graphic Design I (2) CIS 116 PC Operating Systems & Hardware (2) CIS 143 Intro to UNIX (3) CIS 144 UNIX System Administration (3) CIS 149 Intro to Server Page Programming	(3) CIS 155 Network Essentials (2) CIS 180 Computer Security Awareness (3) CIS 248 Intermediate JAVA Programming (1-2) CIS 250 Internship in CIS <b>or</b> (1-6) DGM 250 Digital Media Internship (3) MKT 155 Electronic Commerce (E-Commerce)
<b>Total Certificate Credits</b>	37		

### Other Certificate Graduation Requirements:

- 2.0 minimum cumulative GPA at MCC upon completion of program
- For certificates of less than 12 credit hours, *all* required credits must be completed through MCC coursework. For all other certificates, one-half of the minimum credit hours required must be completed through MCC coursework.
- Completion of Intent to Graduate form
- Completion of end-of-program assessment as directed by this department, for two CIS certificates: OCC 126 Computer Programmer and OCC 127 Webmaster

### Program Overview – Digital Media

In this rapidly changing digital age, there is a growing need for skilled people to create digital content for many different types of venues and applications. Entertainment, information and education are increasingly offered through digital formats; advertising and marketing are doing well

on the web; casual games are downloaded for play on cell phones and over the Internet.

Careers in digital media include positions such as Graphic Designer, Animator, Game Developer, Game Designer, Web Content Developer, Instructional Designer, and Simulation Designer. MCC's Digital Media Program offers an associate's degree as well as three specialty certificates to prepare students with skills needed in this growing industry.

An associate's degree with a focus in digital media will help students prepare to create interactive content for the web, animations, and simple video games. And while pursuing a degree at MCC, students have the opportunity to apply courses to shorter-term specialty certificates.

**The primary purpose of an Associate in Applied Science degree is to prepare students for employment. The AAS degree is not designed specifically for transfer; however, there are opportunities to apply some coursework or the whole degree to a bachelor's degree program. For more information, see an academic advisor and the department chair.**

## Requirements for the Associate in Applied Science (AAS) in Digital Media

Curriculum: OCC 1290	Credit Hours		
<b>General Education Core</b>			
<b>Communications</b> 2 courses	6	(3) ENG 105 Technical Communications (3) ENG 151 Composition I	(3) ENG 152 Composition II (3) SPE 151 Intro to Speech
<b>Humanities</b> 1 course	3	(3) ENG 250 Creative Writing (3) JRN 180 Intro to Film (3) PHI 251 Intro to Ethics	(3) SPE 155 Interpersonal Communication (3) THE 151 Intro to Theatre

<b>Mathematics, Physical or Life Sciences</b> 1 course	3	<b>Mathematics</b> <i>Select from the following prefixes or course numbers:</i> MAT (100-level or above) <b>Sciences</b> <i>Select from the following prefixes or course numbers:</i> BIO	<b>Sciences cont'd.</b> CHM EAS (3) GEG 101 Physical Geography (3) GEG 123 Energy Resources (3) GEG 220 The Global Environment GEL (4) HRT 103 Intro to Plant Science (4) HRT 105 Intro to Soil Science PHY
<b>Social and Behavioral Sciences</b> 1 course	3	<i>Select from the following prefixes or course number</i> ANT ECO (3) GEG 202 Geog. of Developed World (3) GEG 203 Geog. of Developing World (3) GEG 204 Economic Geography	HIS PLT PSY SOC
<b>Program Core</b>	24	(3) CIS 110 Computer Literacy (3) CIS 117 Intro to Programming <b>or</b> (3) CIS 121 Applied Logic (3) DGM 123 Digital 2D Design (3) DGM 125 Digital Drawing 1	(3) DGM 155 Adobe Design Suite (3) DGM 235 Website Design (3) DGM 259 Digital Project Management <b>or</b> (3) CIS 275 Systems Design (3) DGM 275 Portfolio Design
<b>Program Electives</b>	22	(2) CIS 145 Internet Technologies (3) CIS 148 Intro to JAVA Programming (3) CIS 155 Network Essentials (3) CIS 211 Intermediate Programming (3) DGM 100 2D Animation (3) DGM 110 Game Design I (3) DGM 103 Animation Techniques I (3) DGM 150 Digital Storytelling (3) DGM 160 3D Game Development 1 (3) DGM/ART 167 Graphic Design I (3) DGM/ART 168 Computer Art I (3) DGM 170 Digital Video Production	(3) DGM 200 3D Modeling and Animation I (3) DGM 203 Animation Techniques II (3) DGM 205 3D Modeling and Animation II (3) DGM 210 Game Design II (3) DGM 230 Internet Game Programming (1-3) DGM 250 Digital Media Internship (3) DGM 260 3D Game Development II (3) DGM 267 Graphic Design II (1-3) DGM 290 – Topics in Digital Media (up to 3 topics courses) (3) MKT 155 Electronic Commerce (e-commerce)
<b>Total Degree Credits</b>	61		

**Other AAS Graduation Requirements:**

- 2.0 minimum cumulative GPA at MCC upon completion of program
- 15 semester hours of program-specific coursework taken at MCC

- Completion of Intent to Graduate form
- Completion of end-of-program assessment as directed by this department

**Requirements for the Animation Certificate**

<b>Curriculum: OCC 1293</b>	<b>Credit Hours</b>	
<b>Program Core</b>	24	(3) CIS 110 Computer Literacy (3) DGM 100 2D Animation (3) DGM 123 Digital 2D Design (3) DGM 125 Digital Drawing I  (3) DGM 103 Animation Techniques I (3) DGM 200 3D Modeling & Animation 1 (3) DGM 203 Animation Techniques II (3) DGM 205 3D Modeling & Animation II
<b>Total Certificate Credits</b>	24	

## Requirements for the Game Development Certificate

Curriculum: OCC 1294	Credit Hours		
Program Core	27	(3) CIS 110 Computer Literacy (3) CIS 117 Intro to Programming (3) CIS 211 Intermediate Programming (3) DGM 100 2D Animation (3) DGM 110 Game Design I	(3) DGM 160 3D Game Development I (3) DGM 210 Game Design II (3) DGM 230 Internet Game Programming (3) DGM 260 3D Game Development II
<b>Total Certificate Credits</b>	27		

## Requirements for the Internet Game Programming Certificate

Curriculum: OCC 1292	Credit Hours		
Program Core	14	(3) CIS 110 Computer Literacy (3) CIS 117 Intro to Programming (2) CIS 145 Internet Technologies	(3) DGM 100 2D Animation (3) DGM 230 Internet Game Programming
<b>Total Certificate Credits</b>	14		

### Other Certificate Graduation Requirements:

- 2.0 minimum cumulative GPA at MCC upon completion of program
- For certificates of less than 12 credit hours, *all* required credits must be completed through MCC coursework. For all other certificates, one-half of the minimum credit hours required must be completed through MCC coursework.
- Completion of Intent to Graduate form

**For more information, contact the department chair:**

**(815) 479-7521**