

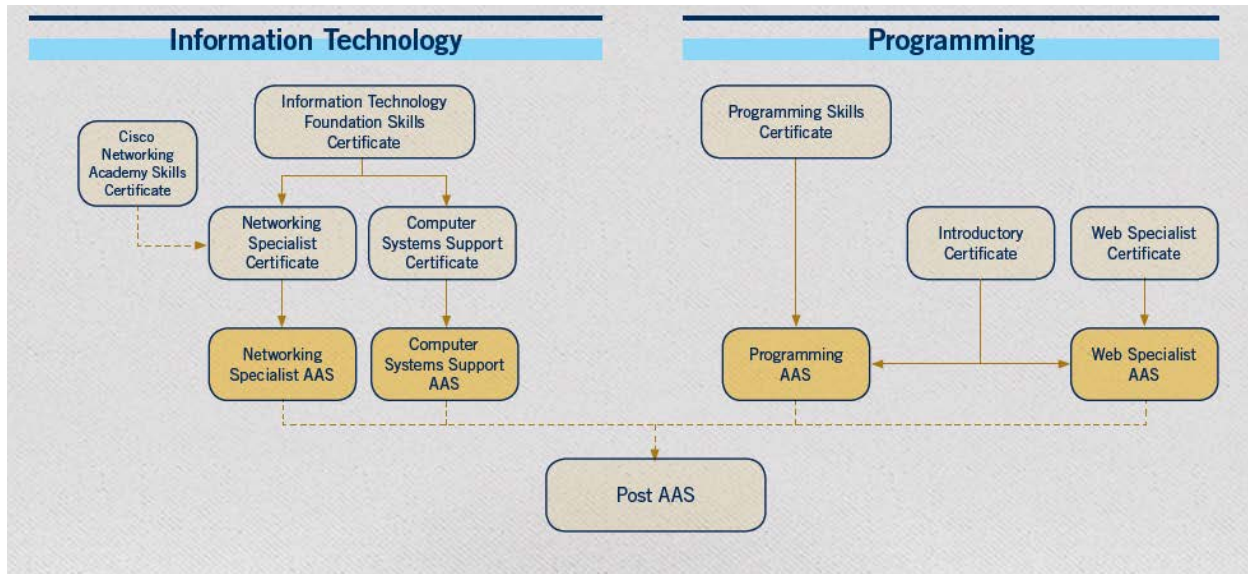
COMPUTER INFORMATION SYSTEMS

Credentials

Information Technology Foundation skills certificate	15-16 cr.
Cisco Networking Academy skills certificate	16 cr.
Networking Specialist Certificate	34 cr.
Networking Specialist AAS degree	64-68 cr.
Computer Systems Support Certificate	33-34 cr.
Computer Systems Support AAS degree	62-69 cr.
Programming skills certificate	16 cr.
Programming AAS degree	60-62 cr.
Introductory certificate	27-28 cr.
Web Specialist certificate	30 cr.
Web Specialist AAS degree	64 cr.
Post-associate certificate	16 cr.

Major Description

If you are interested in learning more about computer basics or technology, or preparing for a career in an emerging technology field, Schoolcraft's Computer Information Systems programs have what you need. We offer four associate of applied science degrees and eight certificates that will help you enhance your skills and prepare for a career in computer systems support, networking, cybersecurity, programming, or web development. Explore the diagram of our educational options below to chart your path:



Information Technology

- **Information Technology Foundation Skills Certificate:** This certificate program is designed for students who are new to computers and information technology looking to become more knowledgeable before choosing a specific path to pursue in the field. Students at any level of computer familiarity will gain fundamental computer knowledge and skills before having the opportunity to choose courses providing a path forward into several certificate and degree programs.
- **Cisco Networking Academy Skills Certificate:** This certificate program is designed to provide students with an understanding of network fundamentals, proficiency working with network equipment such as routers and switches, and the latest LAN and WAN technologies in preparation to achieve the Cisco Certified Network Associate (CCNA) certification.
- **Networking Specialist Certificate:** This certificate provides students with an understanding of network fundamentals and technologies necessary to support networks and network technologies in the demanding information technology field. Students will gain proficiency working with network equipment such as routers and switches, servers and modern operating systems, and explore advanced topics such as cloud technology and cybersecurity. For students looking to jump-start their current IT career, several industry certifications are covered and include: Network+, Security+, Cloud+, Linux+, CCENT, CCNA.
- **Networking Specialist AAS Degree:** Networks form the basis of nearly all of the technologies used in the field of information technology. This program prepares students for an entry-level position in network support where one is expected to not only master networking technologies, but understand how they integrate with and support business operations. Students will gain proficiency working with network equipment such as routers and switches, servers and modern operating systems, and explore advanced topics such as cloud technology and cybersecurity. This

program also covers several industry certifications important to starting a networking career including: Network+, Security+, Cloud+, Linux+, CCENT, CCNA, CCDA.

- **Computer Systems Support Certificate:** This certificate program provides students with the fundamental knowledge and skills required for an entry-level role in the rapidly evolving field of information technology. Students will learn basics of computer hardware, software and user support, as well as explore advanced areas of networking and cybersecurity vital to today's organizations. This program also covers several industry certifications important to starting a career in information technology including: A+, Networking+, (and others depending on chosen electives).

- **Computer Systems Support AAS Degree:** In a world dominated by cloud networking and data breaches, supporting computer systems and users is more challenging than ever before. This degree program prepares students for entry-level positions in information technology support where a wide range of technical skills and knowledge are not only requested by employers, but required. Students will learn how to support the latest computer hardware and software technologies, support users in a business environment and explore the wider field of IT including networking and cybersecurity. This program also covers several industry certifications important to starting a career in information technology including: A+, Networking+, (and others such as Security+ or Cisco CCENT depending on chosen electives).

Programming

- **Programming Skills Certificate:** This certificate program is designed to introduce students to the top computer programming languages used in software development and web applications. Students will also learn how to use the Microsoft.NET framework, which is the common environment for building, deploying and running web services and applications in Windows. In addition, the new Visual Studio.NET will be used, a common development environment for the new .NET framework.

- **Programming AAS Degree:** This degree offers students a schedule of core computer courses and electives to prepare them for a position as an entry-level programmer. Students will learn how a computer programmer analyzes problems and writes step-by-step instructions to enable a computer system to process data efficiently.

- **Introductory Certificate:** This certificate program introduces students to the operating system, concepts of programming logic, programming language and software applications. During or after the first year of this certificate program, students may choose to earn one of the computer information system associate degrees, providing all degree requirements are fulfilled.

- **Web Specialist Certificate:** With the technology of the Internet constantly evolving in terms of infrastructure and website development, this certificate program provides an overview of technical programming and graphic design for web page development needed to stay abreast of these technological advances. Areas of study include programming logic, design concepts and technology and web design and development. Students will also learn about the latest in web technology and design programs, such as Adobe Flash, Illustrator and Photoshop and JavaScript.

- **Web Specialist AAS Degree:** Virtually every company and organization has a website on the Internet these days, and this degree program prepares students to be able to design web pages and program for the web in the constantly evolving world of website technology. It provides working knowledge in key areas that are vital to becoming an Internet professional, including various programming languages, multimedia technologies, graphic development and web design tools.

- **Post-Associate Certificate:** Designed for working professionals who have earned an associate degree in applied science and have experience and/or training in the computer field, it provides insight into the latest computer technology and will enhance their ability to meet the needs of the fast-changing computer information systems environment.

Computer Information Systems: Information Technology Foundation Skills Certificate

Schoolcraft program code # CRT.00328

This certificate program is designed for students who are new to computers and information technology looking to become more knowledgeable before choosing a specific path to pursue in the field. Students at any level of computer familiarity will gain fundamental computer knowledge and skills before having the opportunity to choose courses providing a path forward into several certificate and degree programs.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

First Year—Winter Semester

CNT 115	Cybersecurity Fundamentals	3	Elective	<i>Select from list</i>	3-4
CIS 115	Introduction to Computer Based Systems	3	Elective	<i>Select from list</i>	3
CIS 120	Software Applications	3			
	Total Credits	9		Total Credits	6-7

PROGRAM TOTAL 15-16 CREDITS

Electives

CIS 129	Introduction to Programming Logic	3
CIS 171	Introduction to Networking	3
CIS 172	Network Security Fundamentals	3
CIS 178	Technical Microsoft Windows	3
CIS 255	Introduction to Linux	3
CNT 133	Computer Software and Troubleshooting	3
CNT 210	CCNA Networking I	4

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Cisco Networking Academy Skills Certificate

Schoolcraft program code # CRT.00329

This certificate program is designed for students who are new to computers and information technology looking to become more knowledgeable before choosing a specific path to pursue in the field. Students at any level of computer familiarity will gain fundamental computer knowledge and skills before having the opportunity to choose courses providing a path forward into several certificate and degree programs.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

Computer Information Systems: Cisco Networking Academy Skills Certificate (continued)

First Year—Fall Semester

First Year—Winter Semester

CNT 210	CCNA Networking 1	4	CNT 230	CCNA Networking 3	4
CNT 220	CCNA Networking 2	4	CNT 240	CCNA Networking 4	4
	Total Credits	8		Total Credits	8

PROGRAM TOTAL 16 CREDITS

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Networking Specialist Certificate

Schoolcraft program code # 1YC.00231

This program prepares students for the challenging field of networking where fundamental knowledge of networks underpins the ability to master rapidly advancing advancements that span nearly all technologies in use today. A thorough practical foundation is provided by the rigorous Cisco Academy, with additional courses in the specialized topics of server administration, cybersecurity, wireless, and cloud networking.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

First Year—Winter Semester

CNT 115	Cybersecurity Fundamentals	3	CNT 230	CCNA Networking 3	4
CNT 210	CCNA Networking 1	4	CNT 240	CCNA Networking 4	4
CNT 220	CCNA Networking 2	4	CNT 173	Wireless Local Area Networks	3
CNT 250	Server Administration 1	3	CNT 176	Cloud Network Technologies	3
Elective	<i>Select one</i>	3	CIS 172	Network Security Fundamentals	3
CIS 178	Technical Microsoft Windows			Total Credits	17
CIS 255	Introduction to Linux				
	Total Credits	17			

PROGRAM TOTAL 34 CREDITS

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Networking Specialist AAS Degree

Schoolcraft program code # AAS.00007

This program builds on the Networking Specialist certificate program to further prepare students for a career in the challenging field of networking. In addition to the targeted curriculum of the certificate program, students will gain additional knowledge and skills necessary to design, integrate, and manage networking projects.

Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

First Year—Winter Semester

English	<i>Select one</i>	3	English	<i>Select one</i>	3
ENG 100	Communication Skills		ENG 102	English Composition 2	
ENG 101	English Composition 1		ENG 106	Business English	

CNT 115	Cybersecurity Fundamentals	3	ENG 116	Technical Writing	
CNT 210	CCNA Networking 1	4	Mathematics	<i>Select one</i>	4
CNT 220	CCNA Networking 2	4	MATH 102	Technical Mathematics	
	Total Credits	14	MATH 113	Intermediate Algebra for College Students	
			MATH 126	College Algebra	
			CNT 230	CCNA Networking 3	4
			CNT 240	CCNA Networking 4	4
				Total Credits	15

First Year—Spring Session

Social Science	<i>General Education Social Science course Recommended courses below.</i>	3-4
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	
Science	<i>General Education Science course</i>	3-4
	Total Credits	6-8

Computer Information Systems: Networking Specialist AAS Degree (continued)

Second Year—Fall Semester

Second Year—Winter Semester

Humanities	<i>General Education Humanities course Recommended courses below.</i>	1-3	CIS 250	System Development and Design	4
COMA 103	Fundamentals of Speech		CIS 251	IT Project Management	3
HUM 106	Introduction to Art and Music		CNT 176	Cloud Network Technologies	3
CIS 172	Network Security Fundamentals	3	CNT 293	Network Design	3
CNT 173	Wireless Local Area Networks	3	Elective	<i>Select one not previously taken</i>	3
CNT 250	Server Administration 1	3		Total Credits	16
Elective	<i>Select one</i>	3			
CIS 178	Technical Microsoft Windows				
CIS 255	Introduction to Linux				
	Total Credits	13-15			

Second Year—Spring Session

Exam Preparation**	<i>Select from list</i>	3
	Total Credits	3

PROGRAM TOTAL 64-68 CREDITS

Electives

CIS 178	Technical Microsoft Windows	3
CIS 225	Database Management	3
CIS 255	Introduction to Linux	3
CIS 273	TCP/IP and Network Architectures	3
CIS 274	Advanced Linux	3
CNT 253	Server Administration 2	3

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Computer Systems Support Certificate

Schoolcraft program code # 1YC.00230

This program prepares students for their role as a modern systems support technician in businesses where they are expected to be responsible for much more than just fixing computers. In addition to a firm basis in computer hardware and software skills, students will gain technical proficiency in operating systems, networking, and cybersecurity, while also learning how to communicate with and support users in a business environment.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester			First Year—Winter Semester		
CIS 120	Software Applications	3	CIS 215	Advanced Software Applications	3
CNT 115	Cybersecurity Fundamentals	3	Elective	<i>Select one</i>	3
CIS 171	Introduction to Networking	3	CIS 178	Technical Microsoft Windows	
CNT 130	Computer Hardware & Troubleshooting	3	CIS 255	Introduction to Linux	
CNT 133	Computer Software & Troubleshooting	3	CNT 136	Computer User Support	3
	Total Credits	15	CNT 179	Physical Networking	3
			Elective	<i>Select from the list</i>	3-4
			Total Credits		15-16

First Year—Spring Session

CIS 180	Advanced Spreadsheet Applications	3
	Total Credits	3

PROGRAM TOTAL 33-34 CREDITS

Electives

CIS 172	Network Security Fundamentals	3
CNT 173	Wireless Local Area Networks	3
CNT 210	CCNA Networking 1	4
CNT 220	CCNA Networking 2	4

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Computer Systems Support AAS Degree

Schoolcraft program code # AAS.00014

This program builds on the Computer Systems Support certificate program to further prepare students for a career as a modern systems support technician. Students will enhance their technical skills, while also learning how to manage projects and develop systems solutions to business challenges.

Computer Information Systems: Computer Systems Support AAS Degree (continued)

Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree.

First Year—Fall Semester

First Year—Winter Semester

English	<i>Select one</i>	3	English	<i>Select one</i>	3
ENG 100	Communication Skills		ENG 102	English Composition 2	
ENG 101	English Composition 1		ENG 106	Business English	
CIS 120	Software Applications	3	ENG 116	Technical Writing	
CNT 115	Cybersecurity Fundamentals	3	Mathematics	<i>Select one</i>	4
CNT 130	Computer Hardware & Troubleshooting	3	MATH 102	Technical Mathematics	
CNT 133	Computer Software & Troubleshooting	3	MATH 113	Intermediate Algebra for College Students	
	Total Credits	15	MATH 126	College Algebra	
			CIS 171	Introduction to Networking	3
			CIS 215	Advanced Software Applications	3
			CNT 136	Computer User Support	3
			Total Credits		16

First Year—Spring Session

Social Science	<i>General Education Social Science course Recommended courses below.</i>	3-4
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
PSYCH 201	Introductory Psychology	
Science	<i>General Education Science course</i>	3-4
	Total Credits	6-8

Second Year—Fall Semester

Second Year—Winter Semester

CIS 180	Spreadsheet Applications—Current Software	3	CIS 250	Systems Development and Design	4
Humanities	<i>General Education Humanities course Recommended courses below.</i>	1-3	CIS 251	IT Project Management	3
COMA 103	Fundamentals of Speech		CIS 255	Introduction to Linux	3
HUM 106	Introduction to Art & Music		Elective	<i>Select from the list (if not previously taken)</i>	2-4
CIS 178	Technical Microsoft Windows	3	Total Credits		12-14

CNT 179	Physical Networking	3		
Elective	<i>Select one</i>	3-4		
CIS 172	Network Security Fundamentals			
CNT 173	Wireless Local Area Networks			
CNT 210	CCNA Networking 1			
CNT 220	CCNA Networking 2			
	Total Credits	13-16		

PROGRAM TOTAL 62-69 CREDITS

Electives—Select one no previously taken.

CIS 122	Outlook	2
CIS 172	Network Security Fundamentals	3
CIS 185	Introduction to HTML	3
CIS 225	Database Management	3
CNT 173	Wireless Local Area Networks	3
CNT 210	CCNA Networking 1	4
CNT 220	CCNA Networking 2	4

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Programming Skills Certificate

Schoolcraft program code # CRT.00366

The Microsoft .NET framework is a common environment for building, deploying, and running web services and web applications in the Windows environment. This certificate is designed to introduce the student to the top four programming languages used in software development today. The student will use the new Visual Studio.NET, which is a common development environment for the new .NET Framework. The .NET Framework provides a feature-rich application execution environment, simplified development, and easy integration between a number of different development languages.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion. All program required courses must have been completed with a grade of 2.0 or better.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

First Year—Winter Semester

CIS 129	Introduction to Programming Logic	3	CIS 176	Visual Basic.NET	3
	Total Credits	3	CIS 211	Introduction to C++	2
				Total Credits	5

Computer Information Systems: Programming Skills Certificate (continued)

Second Year—Fall Semester

Second Year—Winter Semester

CIS 221	Advanced C++	2	CIS 290	Object-Oriented Programming with Java	3
CIS 223	Introduction to C#	3		Total Credits	3
	Total Credits	5			

PROGRAM TOTAL 16 CREDITS

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Programming AAS Degree

Schoolcraft program code # AAS.00012

As business and industry embrace new technology and procedures, the need for specially trained people accelerates. This program is designed to prepare the student for a position as an entry-level programmer. Students will learn to become proficient in following directions, analyzing problems, and writing step-by-step instructions so that the computer will efficiently process the data needed to solve these problems. Accuracy, persistence, patience, and the ability to communicate both orally and in writing are important characteristics a computer programmer should possess.

Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

First Year—Winter Semester

CIS 115	Introduction to Computer Based Systems	3	ENG 102	English Composition 2	3
CIS 129	Introduction to Programming Logic	3	Elective	<i>Select one</i>	3
Mathematics	<i>Select one</i>	4	CIS 170	Microsoft Windows	
MATH 102	Technical Mathematics		CIS 178	Technical Microsoft Windows	

MATH 113	Intermediate Algebra for College Students		CIS 225	Database Management Systems	3
COMA 103	Fundamentals of Speech	3	Science	<i>General Education Science course</i>	4
ENG 101	English Composition 1	3	Elective	<i>Select from list</i>	3
	Total Credits	16		Total Credits	16

Second Year—Fall Semester			Second Year—Winter Semester		
CIS 176	Visual Basic.NET	3	CIS 250	Systems Development & Design	4
CIS 211	Introduction to C++	2	CIS 290	Object-Oriented Programming with Java	3
CIS 255	Introduction to Linux	3	CIS 221	Advanced C++	2
Elective	<i>Select from list</i>	6	Social Science	<i>Select one</i>	3-4
	Total Credits	14	POLS 105	Survey of American Government	
			PSYCH 153	Human Relations	
			PSYCH 201	Introductory Psychology	
			Elective	<i>Select from list</i>	2-3
				Total Credits	14-16

PROGRAM TOTAL 60-62 CREDITS

Electives

CIS 120	Software Applications	3
CIS 122	Microsoft Outlook	2
CNT 115	Cybersecurity Fundamentals	3
CIS 185	Introduction to HTML	3
CIS 223	Introduction to C#	3
CIS 238	JavaScript	3
CIS 251	IT Project Management	3

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Introductory Certificate

Schoolcraft program code # 1YC.00004

The computer information systems certificate program introduces students to the operating system and concepts surrounding programming logic. In addition, students obtain a basic knowledge of software applications and programming languages.

Students may select one of the computer information systems associate degree programs at any time during or after the first year. However, all degree requirements must be fulfilled.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

Computer Information Systems: Introductory Certificate (continued)

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester			First Year—Winter Semester		
CIS 115	Introduction to Computer Based Systems	3	ENG 101	English Composition 1	3
CIS 120	Software Applications	3	Mathematics	<i>Select one</i>	4
CIS 129	Introduction to Programming Logic	3	MATH 102	Technical Mathematics	
CIS Elective	<i>Select one</i>	3	MATH 113	Intermediate Algebra for College Students	
CIS 170	Microsoft Windows		CIS 176	Visual Basic.NET	3
CIS 178	Technical Microsoft Windows		CIS 225	Database Management Systems	3
	Total Credits	12	Elective	<i>Select from list</i>	2-3
				Total Credits	15-16

PROGRAM TOTAL 27-28 CREDITS

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Programming AAS Degree

As business and industry embrace new technology and procedures, the need for specially trained people accelerates. This program is designed to prepare the student for a position as an entry-level programmer. Students will learn to become proficient in following directions, analyzing problems, and writing step-by-step instructions so that the computer will efficiently process the data needed to solve these problems. Accuracy, persistence, patience, and the ability to communicate both orally and in writing are important characteristics a computer programmer should possess.

Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree.

SAMPLE SCHEDULE OF COURSES**First Year—Fall Semester****First Year—Winter Semester**

CIS 115	Introduction to Computer Based Systems	3	ENG 102	English Composition 2	3
CIS 129	Introduction to Programming Logic	3	Elective	<i>Select one</i>	3
Mathematics	<i>Select one</i>	4	CIS 170	Microsoft Windows	
MATH 102	Technical Mathematics		CIS 178	Technical Microsoft Windows	
MATH 113	Intermediate Algebra for College Students		CIS 225	Database Management Systems	3
COMA 103	Fundamentals of Speech	3	Science	<i>General Education Science course</i>	4
ENG 101	English Composition 1	3	Elective	<i>Select from list</i>	3
	Total Credits	16		Total Credits	16

Electives

CIS 122	Microsoft Outlook	2
CNT 115	Cybersecurity Fundamentals	3
CIS 171	Introduction to Networking	3
CIS 251	IT Project Management	3
CIS 255	Introduction to Linux	3

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Web Specialist Certificate

Schoolcraft program code # 1YC.00241

The technology of the Internet is constantly evolving both in terms of delivery infrastructure and web site development tools. To stay abreast of these technological advances requires programming and design knowledge, skills and experience. A good site must include both quality visual communication design and functionality. Programming is needed for interactivity to search databases and track usage. Visual graphic design is needed to convey the content message and provide branding for products and services.

This certificate is designed to provide students with an overview of the technical programming and graphic design areas for web page development.

Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

SAMPLE SCHEDULE OF COURSES**First Year—Fall Semester****First Year—Winter Semester**

CGT 109	Design Concepts and Technology	3	CIS 129	Introduction to Programming Logic	3
CGT 123	Illustration—Illustrator	3	CGT 163	Web Design & Development 2	3
CGT 125	Digital Imaging 1—Photoshop	3	CIS 238	JavaScript	3
CGT 136	Web Design and Development 1	3	CGT 141	Introduction to 2D Animation and Interactive Media	3
	Total Credits	12		Total Credits	12

Computer Information Systems: Web Specialist Certificate (continued)**Second Year—Fall Semester****Second Year—Winter Semester**

CGT 234	Web Design and Development 3	3	Elective	<i>Select one</i>	3
	Total Credits	3	CIS 176	Visual Basic.NET	
			CIS 223	Introduction to C#	
			CIS 290	Object-Oriented Programming with Java	
				Total Credits	3

PROGRAM TOTAL 30 CREDITS

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Web Specialist AAS Degree

Schoolcraft program code # AAS.00275

The technology of the Internet is constantly evolving both in terms of delivery infrastructure and website development tools. To stay abreast of these technological advances requires programming and design knowledge, skills and experience. A good site must include both quality visual communication design and functionality. Programming is needed for interactivity to search databases and track usage. Visual graphic design is needed to convey the content message and provide branding for products and services.

This degree is designed to prepare the Internet professional to design web pages and to program for the web. It provides the working knowledge of various programming languages, multimedia technologies, graphic development, and web design tools. The Internet professional may be involved with designing, developing, operating, maintaining and managing web-based publishing.

Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

First Year—Winter Semester

CGT 109	Design Concepts and Technology	3	Mathematics	<i>Select one</i>	4
CGT 123	Illustration—Illustrator	3	MATH 102	Technical Mathematics	
CGT 125	Digital Imaging 1—Photoshop	3	MATH 113	Intermediate Algebra for College Students	
CIS 129	Introduction to Programming Logic	3	ENG 101	English Composition 1	3
CGT 136	Web Design & Development 1	3	CIS 171	Introduction to Networking	3
	Total Credits	15	COMA 103	Fundamentals of Speech	3
			CGT 163	Web Design & Development 2	3
				Total Credits	16

First Year—Spring Session

ENG 102	English Composition 2	3
	Total Credits	3

Second Year—Fall Semester

Second Year—Winter Semester

CGT 141	Introduction to 2D Animation & Interactive Media	3	HUM 106	Introduction to Art and Music	1
CGT 234	Web Design & Development 3	3	Elective	<i>Select one</i>	3
CIS 238	JavaScript	3	CIS 176	Visual Basic.NET	
Social Science	<i>Select one</i>	3	CIS 223	Introduction to C#	
POLS 105	Survey of American Government		CIS 290	Object-Oriented Programming with Java	
PSYCH 153	Human Relations		CIS 250	Systems Development and Design	4
Elective	<i>Select from list</i>	3	Science	<i>General Education Science course</i>	4
	Total Credits	15	Elective	<i>Select from list</i>	3
				Total Credits	15

PROGRAM TOTAL 64 CREDITS

Electives

CNT 115	Cybersecurity Fundamentals	3
CIS 176	Visual Basic.NET	3
CIS 185	Introduction to HTML	3
CIS 223	Introduction to C#	3
CIS 225	Database Management Systems	3
CIS 255	Introduction to Linux	3
CGT 212	Advanced Interactive Media	3
CGT 213	Advanced 2D Animation	3

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with an academic advisor or counselor. Number of credits may vary depending on the course selection.

Computer Information Systems: Post-Associate Certificate

Schoolcraft program code # PAC.00155

This post-associate certificate in computer science information systems is designed for working professionals who have experience and/or training in the computer field. This certificate will provide study in the newest technology and will enhance students' ability to meet the needs of the ever changing computer information systems environment.

Prior to admission in this program, students must have already completed a minimum of an accredited associate degree in applied science. The post-associate certificate is awarded upon successful completion of 16 credit hours (exact number may vary slightly due to credit value of courses).

PROGRAM COURSES

CIS 172	Network Security Fundamentals	3
CIS 178	Technical Windows	3
CIS 185	Introduction to HTML	3
CIS 211	Introduction to C++	2
CIS 221	Advanced C++	2
CIS 223	Introduction to C#	3
CIS 238	JavaScript	3
CIS 250	Systems Development & Design	4
CIS 251	IT Project Management	3
CIS 255	Introduction to Linux	3
CIS 274	Advanced Linux	3
CIS 290	Object-Oriented Programming with Java	3
CNT 176	Cloud Network Technologies	3
CNT 210	CCNA Networking 1	4
CNT 220	CCNA Networking 2	4
CNT 130	Computer Hardware & Troubleshooting	3
CNT 250	Server Administration 1	3

PROGRAM TOTAL 27 CREDITS

Many courses can be taken through independent study.

Not all courses are offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them.

Number of credits may vary depending on the course selection.



It is the policy of Schoolcraft college that no person shall, on the basis of race, religion, color, gender, age, marital status, disability, sexual orientation, and/or national origin, be subjected to discrimination during or be excluded from participating in or be denied the benefits of any program or activity or in employment.

