Somerset Community College

Computer & Information Technologies (CIT)

Program Overview

somerset.kctcs.edu

AAS Degree tracks in Cloud Computing Technologies, Information Security, Internet Technologies, Network Administration, & Programming

PROGRAM DETAILS

This program includes five Associate in Applied Science Degree tracks with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, Internet technologies, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

The **Cloud Computing Technologies Track** covers the fundamentals of building IT infrastructure using cloud-based technologies. The track is designed to teach future cloud technologists how to optimize the use of cloud-based services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for cloud technologies, and it recommends various design patterns to help students think through the process of architecting optimal IT cloud-based solutions.

The **Information Security track** will provide a solid background in information security. Fundamentals of information security, offensive and defensive techniques, and security topics such as operating system security, network security design, or other security topics are covered. This track will help prepare students for entry-level positions of network security, auditing and penetration testing, firewall configuration, and computer crime investigation.

The **Internet Technologies track** prepares students to design, program, and maintain Internet-based services. With specializations in web programming and web server administration, this track will help prepare students for positions developing and maintaining interactive web sites.

The **Network Administration track** provides the concepts and skills needed to design, set-up, maintain, and expand network and telecommunications systems. The curriculum provides specific training in Cisco and/or Microsoft network systems. Upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large businesses and organization and computer network administration positions in small businesses.

The **Programming track** prepares students to design, develop, and maintain computer programs written in current and emerging programming languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

COMPUTER & INFORMATION TECHNOLOGIES (CIT) CREDENTIALS:

CERTIFICATES:

- A+ Prep (4 credit hours)
- Cisco Networking Associate (18 credit hours)
- Cisco Networking Enhanced (21 credit hours)
- CIT Fundamentals (23 credit hours)
- Computer Tech Basic (11 credit hours)
- Computer Technician (14 credit hours)
- Informatics Programming (12 credit hours)
- Information Security Specialist (19 credit hours)
- Microsoft Network Administrator (19 credit hours)
- Microsoft Enterprise Administrator (22 credit hours)
- Mobile Apps Developer (18 credit hrs.)
- Net+ Prep (4 credit hours)
- Programmer (12 credit hours)
- Security+ Prep (3 credit hours)
- Web Server Administrator (21 credit hrs.)
- Web Programmer (24 credit hours)

ASSOCIATE IN APPLIED SCIENCE DEGREE:

- Cloud Computing Technologies Track (61 credit hours)
- Information Security Track (60 credit hours)
- Internet Technologies Track (60 credit hours)
- Network Administration Track (60-62 credit hours)
- Programming Track (60 credit hours)

SOMERSET COMMUNITY COLLEGE

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Computer & Information Technologies (CIT)

Advising Planner

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AAS Degree tracks in Cloud Computing Technologies, Information Security, Internet Technologies, Network Administration, & Programming

REQUIRED COURSES FOR DEGREE TRACKS

AAS Degree tracks are Cloud Computing Technologies, Information Security, Internet Technologies, Network Administration, and Programming

GENERAL EDUCATION REQUIREMENTS (15 HOURS)		Credits
ENG 101	Writing I	3
MAT 126	Technical Algebra and Trigonometry OR	
	MAT 146, 150, 155, 160, 161, 165, 170, 171, 174, 175	3
	Social and Behavioral Sciences Course	3
	Heritage or Humanities Course	3
	Natural Sciences Course	3

TECHNICAL COURSES REQUIRED (24 HOURS)		
CIT 105	Introduction to Computers	3
CIT 111	Computer Hardware and Software	4
CIT 120	Computational Thinking.	3
CIT 170	Database Design Fundamentals	3
CIT 180	Security Fundamentals	3
	Approved Level I Networking Course	4
	Approved Level I Programming Language Course	3
CIT 293	CIT Employability Studies	1

DEGREE TRACKS COURSES (21 HOURS)	
	Varies Depending on Degree Track
	(See the Course Catalog or Approved Advising Plan)

TOTAL HOURS FOR PROGRAM — 60-62

A grade of "C" or better is required in all technical courses.

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All Computer & Information Technologies courses are available online!

FACULTY

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Notes:

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