



## Computer & Information Technology Associate in Applied Science Degree Network Administration Track (Cisco and/or Microsoft)

FIRST YEAR COURSE SCHEDULE			
Fall Semester	Credits	Spring Semester	Credits
ENG 101-Writing I	3	CIT 111 Computer Hardware and Software	4
CIT 105-Intro to Computers	3	CIT 120 Computational Thinking	3
MAT 126*-Technical Algebra & Trigonometry (or higher)	3	CIT 170-Database Design Fundamentals	3
Heritage/Humanities Course	3	Natural Sciences Course	3
Social/Behavioral Sciences Course	3	CIT Technical Elective	3
<b>Total Credit Hours</b>	<b>15</b>	<b>Total Credit Hours</b>	<b>16</b>

\*If you plan to transfer to a four-year college/university, it is recommended that you take MAT150 – College Algebra.

SECOND YEAR COURSE SCHEDULE			
Fall Semester	Credits	Spring Semester	Credits
Level I Networking Course (CIT 160 or 161)	4	CIT 288-Network Security	3
CIT 180-Security Fundamentals	3	CIT 293-CIT Employability Studies	1
CIT 219-Internet Protocols	3	Approved Level I Programming Elective (see next page)	3
Specialization Elective (see list below)	3-4	Specialization Elective (see list below)	3-4
Specialization Elective (see list below)	3-4	Specialization Elective (see list below)	3-4
		Specialization Elective (see list below)	3
<b>Total Credit Hours</b>	<b>16-18</b>	<b>Total Credit Hours</b>	<b>16-18</b>

**Specialization Electives:** Select **15** hours from the courses listed below. At least hours must be from a single platform and at least 4 hours must be from a different platform.

Cisco Networking		Microsoft Windows Administration	
(Must use CIT 161 to start Cisco track)	Credits	(CIT160 OR CIT 161 to start MS Track)	Credits
CIT 167-Routing & Switching Essentials	4	CIT 213-Microsoft Client Configuration	3
CIT 209-Scaling Networks	4	CIT 214-Microsoft Server Configuration	3
CIT 212-Connecting Networks	4	CIT 215-Microsoft Server Administration	3
		CIT 216-Microsoft Server Advanced Series	3
<b>Total Credit Hours</b>	<b>12</b>	<b>Total Credit Hours</b>	<b>12</b>

UNIX Platform		Data Center Platform	
	Credits		Credits
CIT 217-UNIX/LINUX Administration AND	3	CIT 201-Information Storage Management	3
CIT 218-UNIX/LINUX Net Infrastructure	3	CIT 203-Introduction to Virtualization	3
CIT 255-Web Server Administration	3	CIT 204-VMWare Optimize and Scale	3
		CIT 205-Cloud Infrastructure and Services	3
<b>Total Credit Hours</b>	<b>9</b>	<b>Total Credit Hours</b>	<b>12</b>

Approved Level I Programming Electives	
CIT 140-JavaScript I	CIT 148-Visual basic I
CIT 141-PHP I	CIT 149-Java I
CIT 142-C++ I	CIT 171-SQL I
CIT 145-Perl I	
CIT 147-Programming Language	

- Students must maintain a "C" or better in all CIT courses for the course to count toward the degree.
- Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of "C" or higher (or a "Pass" for Pass/Fail courses) to fulfill a core or track graduation requirement.

Curriculum within KCTCS is reviewed and updated to ensure quality and relevance. This curriculum plan should be used only as a guide for meeting the course requirements for each credential. See the KCTCS catalog for specifics and consult your advisor.

- Students may not use one course to fulfill multiple requirements.
- All CIT graduates must take exit exam(s) as required by Ashland Community and Technical College/KCTCS.
- NOTE on networking courses: Ashland Community and Technical College currently uses a "Fast-Track" model for its networking courses. For example, when you sign up for either MS or Cisco, you will sign up for two courses, both to be completed in a single semester. One class will run from the start of the semester to midterm and be finished. The second will run from midterm until the end of the semester. You will earn credit for two classes but only take one class at a time. This is so either track can be completed in two semesters and you can complete your degree without delay.
- Have a question? Contact Randolph.cullum@kctcs.edu

### **Network Technologies Overview**

The Network Technologies track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small business.

### **Cisco Networking Associate Specialization**

The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

### **Microsoft Windows Administration Specialization**

The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.