IT NETWORKING
PATHWAY COURSE SEQUENCE:

1

Level 1: Information Technology Foundations (ITF)
Exposes you to various Information Technology (IT) occupations and pathways such as Networking Systems, Programming and Software Development, and Web Designs.

You will learn about:
- Social, legal and ethical issues encountered in the IT profession
- Electronics and basic digital concepts
- Project management, client relations and teamwork
- Causes and prevention of internet security breaches
- Writing styles appropriate for web publication

2

Level 2: Computer Systems
Prepares you with work-related skills and aligned certification in the IT industry.

You will learn concepts in:
- Hardware
- Operating systems
- Safe mode and security
- Command prompt
- Networking
- Troubleshooting
- Printers
- Peripheral devices
- Laptops
- Mobile devices
- Customer service management

You will be eligible to pursue the Computing Technology Industry Association's A+ Certification.

3

Level 3: Networking
Provides you with practical skills necessary to design, manage and diagnose network hardware and software.

You will understand:
- Types of networks and layers of the open systems interconnection (OSI) model, prevention of security risks, troubleshooting concepts and networking tasks
- Transmission control protocol, internet protocol, wired and wireless topologies, switching and routing, network hardware, wireless networking and network operating systems

You will also be prepared to take the Comp TIA Network + exam.

4

Level 4: Cabling & Internetworking and/or IT Clinical Internship
Provides you with the skills necessary to install voice and data network cabling.

Emphasis includes:
- Industry standards
- Types of media and cabling
- Physical and logical networks
- Signal transmission
- Cable termination
- Reading network
- Design documentation
- Pulling/mounting cable
- Setting up telecommunication rooms
- Cable testing and troubleshooting

IT Clinical Internship is a Capstone course allowing you to work in a real IT support environment such as a school setting, shop or local business. You will meet the recommended 500 hours' work experience needed to take the CompTIA A+ exams, which certifies industry-recognized IT Support technicians.

E

Pathway Elective: Work Based Learning Career Practicum

Helps you connect your classroom knowledge to high-demand, high-skill careers in Tennessee. You will develop employability skills preparing you for post-high school education and future careers. As a junior or senior (16 years or older), you may earn high school credit for Capstone WBL through internships, apprenticeships, and paid work experiences.

Course sequence is identified by Tennessee Department of Education. Each school district determines courses offered in each pathway.

Median wage ranges based on Tennessee Department of Labor & Workforce Development Labor Market Information- June 2014. Job standards, descriptions, and wages vary by company.

**TCAT - Tennessee College of Applied Technology

CERTIFICATE TCAT**	ASSOCIATE COMM. COLLEGE	BACHELOR'S UNIVERSITY
$20,000 - 80,000*	**$41,000 - 55,000***	**$40,000 - 95,000***
• Computer Support Technician	• IT Communications Coordinator	• Information Systems Specialist
• Implementation Specialist	• Junior Windows Systems Administrator	• Senior Systems Engineer
		• Senior Systems Analyst
TCAT Athens TCAT Chattanooga	**Chattanooga State Cleveland State**	**UTC - University of Tennessee at Chattanooga**