

# TDCJ COMPUTER INFORMATION TECHNOLOGY

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- Computer Information Technology (TDCJ) AAS (<https://coursecatalog.tvcc.edu/tdcj-handbook/programs/computer-information-technology/computer-information-technology-aas/>)
- Computer Information Technology Certificate (TDCJ) (<https://coursecatalog.tvcc.edu/tdcj-handbook/programs/computer-information-technology/computer-information-technology-certificate/>)

## **ITSC-1405. Introduction to PC Operating Systems. (4 Credits)**

Introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

## **ITSC-1425. Personal Computer Hardware. (4 Credits)**

Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting.

## **ITNW-1458. Network+. (4 Credits)**

Assists individuals in preparing for the Computing Technology Industry Association (CompTIA) Network+ certification exam and career as a network professional.

## **ITNW-1425. Fundamentals of Networking Technologies. (4 Credits)**

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software.

## **ITSY-1400. Fundamentals of Information Security. (4 Credits)**

An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed.

## **ITSY-1442. Information Technology Security. (4 Credits)**

Instruction in security for network computer hardware, software, virtualization, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Topics may adapt to changes in industry practices.

## **WHAT COMPUTER SUPPORT SPECIALISTS DO**

Computer support specialists provide help and advice to computer users and organizations. These specialists either support computer networks or they provide technical assistance directly to computer users.

## **DUTIES**

*Computer network support specialists* typically do the following:

- Test and evaluate existing network systems
- Perform regular maintenance to ensure that networks operate correctly
- Troubleshoot local area networks (LANs), wide area networks (WANs), and Internet systems

Computer network support specialists, also called *technical support specialists*, analyze, troubleshoot, and evaluate computer network problems. They play an important role in the routine maintenance of their organization's networks, such as performing file backups on the network. Maintenance can be performed daily, weekly, or monthly and is important to an organization's disaster recovery efforts. Solving an information technology (IT) problem promptly is important because organizations depend on their network systems. Network support specialists may assist computer users through phone, email, or in-person visits. They often work under network and computer systems administrators, who handle more complex tasks.

**Computer user support specialists** typically do the following:

- Pay attention to customers' descriptions of their computer problems
- Ask customers questions to properly diagnose the problem
- Walk customers through the recommended problem-solving steps
- Set up or repair computer equipment and related devices
- Train users to work with new computer hardware or software, such as printers, word-processing software, and email
- Provide other team members and managers in the organization with information about what gives customers the most trouble and about other concerns customers have

Computer user support specialists, also called *help-desk technicians*, usually provide technical help to non-IT computer users. They respond to phone and email requests for help. They can usually help users remotely, but they also may make site visits so that they can solve a problem in person.

Help-desk technicians may solve a range of problems that vary with the industry and the particular firm. Some technicians work for large software companies or for support service firms and must give instructions to business customers on how to use business-specific programs such as an electronic health records program used in hospitals or physicians' offices. Sometimes they work with other technicians to resolve problems.

Other help-desk technicians work in call centers, answering simpler questions from non-business customers. They may walk customers through basic steps in re-establishing an Internet connection or troubleshooting household IT products such as Wi-Fi routers.

## **SUMMARY**

- Computer support specialists
- 2021 Median Pay: \$57,910 per year; \$27.84 per hour

- Typical Entry-Level Education: Varies based on position.
- Work Experience in a Related Occupation: None
- On-the-job Training: Moderate-term on-the-job training
- Number of Jobs, 2021: 875,700
- Job Outlook, 2021-31: 6% (As fast as average)
- Employment Change, 2021-31: 56,400

### **What Network And Computer Systems Administrators Do**

Network and computer systems administrators are responsible for the day-to-day operation of computer networks.

### **What Software Developers Do**

Software developers create applications or systems that run on a computer or another device.

### **What Information Security Analysts Do**

Information security analysts plan and carry out security measures to protect an organization's computer networks and systems.

## **WORK ENVIRONMENT**

Most computer support specialists have full-time work schedules; however, many do not work typical 9-to-5 jobs. Because computer support is important for businesses, support services may need to be available 24 hours a day. As a result, many support specialists must work nights or weekends.

## **PAY**

The median annual wage for computer network support specialists was \$62,760 in May 2021.

The median annual wage for computer user support specialists was \$49,770 in May 2021.

## **JOB OUTLOOK**

The employment of computer support specialists is projected to grow 6% from 2021 to 2031, about as fast as average for all occupations. More support services will be needed as organizations upgrade their computer equipment and software.

## **STATE & AREA DATA**

Explore resources for employment and wages by state and area for computer support specialists.

## **SIMILAR OCCUPATIONS**

Compare the job duties, education, job growth, and pay of computer support specialists with similar occupations.

## **MORE INFORMATION, INCLUDING LINKS TO O\*NET**

Learn more about computer support specialists by visiting additional resources, including O\*NET, a source on key characteristics of workers and occupations.

**SUGGESTED CITATION:**

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Computer Support Specialists, on the Internet at <https://www.bls.gov/ooh/computer-and-information-technology/computer-support-specialists.htm> (visited May 31, 2023).

Some careers in this field will require a bachelor's degree.

- TVCC's AA degrees are fully transferable to public universities in Texas. See an academic advisor for more information on this transfer opportunity.
- Many of TVCC's AAS degrees lead to an online Bachelor of Applied Arts and Sciences (BAAS) degree with participating universities. See an academic advisor for more information on this transfer opportunity.