

# COMPUTER ENGINEERING TECH (CET)

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## **CET 1172 Beginning PC Repair**

**Credit Hours:** 3

**Lab Fee:** Yes

This course will provide the individual an understanding of the fundamentals of personal computers and associated peripherals, including an introduction to multimedia devices. This course will cover computer hardware, operating systems, networking and security. Students will receive hands-on experience with troubleshooting, repair, and maintenance. A computer will be disassembled/reassembled, an operating system installed and diagnostic software will be used to analyze the hardware and peripheral devices. This course will also cover lab safety, environmental issues, face-to-face and online communication skills, principles of laptop and portable devices, and removable storage devices.

## **CET 1174 Advanced PC Repair**

**Credit Hours:** 3

**Prerequisites:** CET 1172 with a grade of "C" or higher

**Lab Fee:** Yes

This course will provide the individual an understanding of the logical architecture of personal computers and associated peripherals. Advanced topics of computer hardware, operating systems, networking and security will be covered. Students will receive hands-on experience with troubleshooting, repair, and maintenance. A computer/laptop/smartphone will be disassembled/reassembled, and operating system installed. Diagnostic software will be used to analyze the hardware and peripheral devices. Operating systems will be installed, diagnosed and networked within a peer to peer configuration. This course will also cover lab safety, environmental issues, face-to-face and online communication skills, and removable storage devices.

## **CET 1176 Computer Maintenance and Repair**

**Credit Hours:** 3

**Prerequisites:** CGS 1000 with a grade of "C" or higher

**Lab Fee:** Yes

This course will provide the individual with an understanding of the logical architecture of computing devices and associated peripherals. Topics of computer hardware, operating systems, networking, and security are covered. Students will receive online laboratory and hands-on experience with troubleshooting, repair, and maintenance. Computers will be disassembled and/or reassembled and operating system(s) will be installed. Diagnostic software will be used to analyze the hardware and peripheral devices. Operating systems will be installed, configured, diagnosed, and networked within a peer-to-peer configuration. This course will also cover lab safety, environmental issues, face-to-face and online communication skills, central processing units (CPU), memory, and removable storage devices.

## **CET 2894 Capstone in Cybersecurity**

**Credit Hours:** 3

**Prerequisites:** CETC 2890 with a grade of "C" or higher

The objective of this course is to sharpen the student's cyber defense skills by preparing for and participating in cyber defense competitions. This capstone course builds on the background from other foundation courses in cybersecurity and utilizes team-based consulting projects to provide students with methodologies and hands-on experiments for diagnosing and solving real-world cybersecurity and information assurance problems. Students will inventory a live network, conduct assessments and needs analysis, harden information systems, monitor the network infrastructure, detect and thwart attacks, respond to incidents, and prepare reports.