CSCI 1400  

**PC Setup and Maintenance**

**Credit Hours:** 1

**Contact Hours:** 2

**Course Coordinator:** David Tarnoff

**Text(s):**


**Catalog Description:**

The course provides students with a practical introduction to computer installation, maintenance, and operation with special emphasis on PCs. Hands-on experience with PC internals will be provided. Upon completion of the course, the student will be able to describe the principles of PC operation, configure and set up PCs, troubleshoot and correct PC-related failures, and perform simple maintenance, upgrading, and performance tuning on PCs.

**Prerequisite(s):** CSCI 1100

**CS:** REQUIRED (LAB PORTION OF CSCI 2150) **REQUIRED**

**IS:** REQUIRED (LAB PORTION OF CSCI 2150) **REQUIRED**

**IT:** REQUIRED (LAB PORTION OF CSCI 2150) **REQUIRED**

**Course Outcomes:**

- describe the purpose of BIOS and CMOS setup and their function in a computer system - ETSU Outcome 3
- identify the purpose and operation of a computer system’s internal components - ETSU Outcomes CS-1, IT-2
- install and upgrade a computer system’s hardware components - ETSU Outcome 3
- diagnose and correct common computer system failures -ETSU Outcomes 3, 4, IT-2
- install and troubleshoot device drivers -ETSU Outcomes 3, 4, IT-2
- prepare a system image for the purpose of recovery and/or dissemination -ETSU Outcomes 3, IS-1
- create and utilize virtual machines -ETSU Outcomes 3, IS-1
- install operating systems, and install and troubleshoot applications - ETSU Outcomes 3, 4, IS-1, IT-2
Major Topics:

Each week, the students will perform a laboratory experiment focusing on the installation or troubleshooting of PC hardware, the installation of operating systems, or the installation of software. The labs will include but are not limited to:

- BIOS configuration
- Flash BIOS upgrade
- Hard drive installation and partitioning
- Installation of multiple operating systems
- Application/program installation on multiple operating systems
- Creation and deployment of a hard drive backup image
- Machine virtualization
- I/O device and driver installation
- PC system troubleshooting and repair
- Performance tuning.