

Computer Service and Support

Computer Title:	Computer Service and Support
Computer Code:	VEE309
Grade Level:	9 -12
Recommended Preparation:	No Preparation Required
Length of Course:	18 to 36 Weeks

Major Concepts/Content:

This program is intended to prepare students for computer support careers. Students enrolled in this course will learn how to perform shop maintenance, repair computers, install operating systems and software, acquire employment skills, as well as operate a service and support business. This is a preparation course that will provide students with concepts and skills necessary to achieve A+ certification in PC Repair and Technical Support. This distributed learning model of instruction provides a blend of instruction with hands-on experiences that reflects current industry practices. During the course, students will identify and use hand tools, PC hardware and software, and will explore electronics theory. Installation, upgrade and repair will be explored in new and older personal computer systems as well as printers and computer networks. A number of operating systems also will be reviewed. Students will train in a simulated work environment using a distributed learning instructional model.

Major Instructional Activities:

Students will be trained to use tools, electronic test equipment, and software to analyze and solve PC problems. Students will learn about computer architecture and the basic concepts of interconnectivity through hands-on training. During the course, students will analyze defective equipment, determine corrective measures, and make the equipment operational if possible. Students will build a PC as part of the requirements of this course.

Major Evaluative Techniques:

Students will demonstrate their knowledge through computer based instruction and exams, performance tests, hands-on service, and completion of various repair projects. Demonstration of performance and professionalism are major components of the student's evaluation.

Essential Objectives: Upon completion of the course, students should be able to:

- Apply standard safety procedures.
- Accurately use and complete forms associated with computer repair.
- Correctly operate appropriate tools, equipment, and materials
- Demonstrate a fundamental knowledge of electronics and electronic circuits.
- Perform periodic maintenance on a computer workstation.
- Apply techniques used in the repair and building of electronic products
- Demonstrate knowledge of computer architecture, i.e., power supplies, motherboards, memory, processors, hard drives, modems, and bus and port connections.
- Apply business procedures for operating a service center.
- Apply techniques used in the repair and building of computers and their integrated components.
- Understand and install appropriate operating systems and drivers.
- Demonstrate knowledge of installation and maintenance of computer peripherals
- Service and repair a variety of computer printers.
- Understand and troubleshoot basic PC network systems.
- Successfully complete a battery of A+ Certification preparatory exams.

Applied Learning Standards:

A1 Problem Solving:

Apply problem-solving strategies in purposeful ways, both in situations where the problem and desirable solutions are clearly evident and in situations requiring a creative approach to achieve an outcome.

A2 Communication Tools and Techniques:

Communicate information and ideas in ways that are appropriate to the purpose and audience through spoken, written, and graphic means of expression.

A3 Information Tools and Techniques:

Use information-gathering techniques, analyze and evaluate information, and use information technology to assist in collecting, analyzing, organizing, and presenting information.

A4 Learning and Self-Management Tools and Techniques:

Manage and direct one's own learning.

A5 Tools and Techniques for Working With Others:

Work with others to achieve a shared goal, help other people to learn on-the-job, and respond effectively to the needs of a client.