

VT 4570 – COMPUTER MAINTENANCE I/ ELECTRONICS I
VT 4580 – COMPUTER MAINTENANCE II/ELECTRONICS II

Computer Maintenance is a two-year program that provides students with a solid foundation of skills necessary to succeed in the twenty-first century. For students interested in the Computer/Electronics Technology field, like to work with computers, and want a high-paying job, this is where you want to be. This course provides the opportunity to learn the skills and knowledge to take and pass the Computer Technology Industry Association's A+ Computer Support Specialist Certification exams, which is a computer technician certification recognized worldwide and the fundamentals needed for robotics, and telecommunications.

Essential Learning Objectives

Students must demonstrate:

- An ability to apply the knowledge, techniques, skills, and modern tools in computer maintenance and networking applications to include basic electronics, programming, operation, installation, maintenance, selection, and optimization of computer systems, computer networks and associated hardware and software systems.
- An ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge in computer maintenance and networking.
- An ability to conduct standard tests and measurements and, to conduct, analyze, interpret experiments and write technical lab.
- An ability to function effectively as a member of a technical team.
- An ability to identify, analyze engineering technology problems in computer maintenance and networking applications and develop appropriate solutions.
- An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.
- An understanding of the need for and an ability to engage in self-directed continuing professional development.

- An understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity.
 - A commitment to quality, timeliness, and continuous improvement.
 - The application of electric circuits/circuit analysis and design, computer programming, associated software applications, analog and digital electronics, microcomputers, operating systems, and local area networks, to the building, testing, operation and maintenance of computer systems and associated software systems.
 - The application of physics to electronic circuits in a rigorous mathematical environment at or above the level of algebra and trigonometry.
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- Students will learn/use Technical Mathematics Skills
 - Students will learn/use Technical Communication Arts Skills

Computer Network Technician Competency Profile & Crosswalk:

https://dese.mo.gov/sites/default/files/Computer_Network_Tech.pdf

https://dese.mo.gov/sites/default/files/Computer_Network_Tech_Cross.pdf

Electronics Competency Profile & Crosswalk:

<https://dese.mo.gov/sites/default/files/Electronics.pdf>

https://dese.mo.gov/sites/default/files/Electronics_Cross.pdf

Updated: Spring 2020