Upon successful completion of this program, students will be prepared for an entry-level position in the telecommunications industry. Students will acquire the necessary skills required by the high-tech, high-wage telecommunications industry. This program integrates classroom experience with hands-on lab exercises. Computers and networks used to support modern telecommunications are also covered.

**STUDENT LEARNING OUTCOMES – Graduates of this program will have the opportunity to:**

- Construct, test, and verify the operation of various AC, DC, analog and digital circuits, demonstrate a working knowledge, fiber optics, electronics/telecommunications laboratory test equipment and perform a mechanical and fusion splice to specification.
- Explain the signaling specifications of the telephone set, subscriber loop interface and central office and distinguish between the various circuit and trunking types commonly employed in the Public Switched Telephone Network (PSTN).
- Develop positive work ethics and interpersonal skills in a group environment.
- Develop a hands-on understanding of the installation and operation of networks that support devices such as Voice over IP telephones and computers.
- Demonstrate a working knowledge of personal computers and the embedded computers found in telecommunications devices such as switches and routers.

**GENERAL EDUCATION REQUIREMENTS (3 Credits):**

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**COMMUNICATIONS:**

COM 115, ENG 100, 101, 107, 113

**SPECIAL PROGRAM REQUIREMENTS (30 Credits):**

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**CIT 110** A+ Hardware

**CSCO 105B** Fundamentals of Voice and Data Cabling

**CSCO 120** CCNA Internetworking Fundamentals

**CSCO 205B** Fiber Optic Cabling

**ET 106B** Test Equipment Operation

**ET 108B** Telecommunications and the Information Age

**ET 131B** DC for Electronics

**ET 132B** AC for Electronics

**MATH 111B** Mathematics for Electronics Applications

Human Relations included in CSCO 105B, ET 132B

Computation included in MATH 111B

**NOTE:** Courses with a B suffix (example - XYZ 123B) may be non-transferable for a NSHE baccalaureate degree.