Engineering Technology – Telecommunications

CERTIFICATE OF ACHIEVEMENT (CoA)   **REQUIRED CREDITS: 32**   **DEGREE CODE: ETTELCO-CT**

DESCRIPTION

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

- 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.

PLEASE NOTE - The courses listed below may require a prerequisite or corequisite. Read course descriptions before registering for classes. All MATH and ENG courses numbered 01-99 must be completed before reaching 30 total college-level credits. No course under 100-level counts toward degree completion.

GENERAL EDUCATION REQUIREMENTS (3 CREDITS)

COMMUNICATIONS (3-5 credits)
Recommended: COM 115 Applied Communication

SPECIAL PROGRAM REQUIREMENTS (29 CREDITS)

CIT 110	A+ Hardware	3
CIT 112B	Network+	3
CSCO 105B	Fundamentals of Voice and Data Cabling	3
CSCO 205B	Fiber Optic Cabling	3
ET 106B	Test Equipment Operation	3
ET 108B	Telecommunications and the Information Age	3
ET 111B	Mathematics for Electronics Applications	3
ET 131B	DC for Electronics	4
ET 132B	AC for Electronics	4

Computation included in ET 111B

Human Relations included in CSCO 105B, ET 132B

FULL-TIME STUDENT DEGREE PLAN

Plan can be modified to fit the needs of part-time students by adding more semesters.

FIRST SEMESTER	**Credits**
CSCO 105B Fundamentals of Voice and Data Cabling	3
ET 106B Test Equipment Operation	3
ET 108B Telecommunications and the Information Age	3
ET 131B DC for Electronics	4
ET 111B Mathematics for Electronics Applications	3
TOTAL CREDITS *16*

SECOND SEMESTER	**Credits**
CIT 110 A+ Hardware	3
CIT 112B Network+	3
CSCO 205B Fiber Optic Cabling	3
ET 132B AC for Electronics	4
TOTAL CREDITS *13*

THIRD SEMESTER	**Credits**
COM 115 Applied Communication	3
TOTAL CREDITS *3*

DEGREE PLAN TOTAL CREDITS..**32**

NOTE
- Course numbers with the "B" suffix may be non-transferable for a NSHE baccalaureate degree.
- Course numbers with the "H" suffix are designated Honors-level courses and can be used to fulfill equivalent general education requirements. For more information visit www.csn.edu/honors.
- In no case, may one course be used to meet more than one requirement except for the Values and Diversity general education requirement (only AA, AS, and AB degrees) which may be used to fulfill the corresponding general education or emphasis requirement.
- Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.