



COURSE SYLLABUS

DIVISION: Workforce Services

REVISED: January 2015

CURRICULUM: Electrical Electronics Engineering Technology

COURSE NUMBER AND TITLE: ETR 243, Digital, Analog and Data Communications

CREDIT HOURS: 5

HOURS/WEEK LECTURE: 4

HOURS/WEEK LAB: 3

LECTURE/LAB COMBINATION: 6

I. CATALOG DESCRIPTION: Teaches theory and implementation of digital and analog circuits in communications systems. Includes PCM, multiplexing, analog modulation, analysis and performance of transmitters and receivers. May include optical, satellite and other communications systems.

II. RELATIONSHIP OF THE COURSE TO CURRICULUM OBJECTIVES:

Teaches the principles of electronics communications to provide the student with an understanding of the operation installation and maintenance of electronic communications as found in the office and the plant floor.

III. REQUIRED BACKGROUND/PREREQUISITES/COREQUISITES:

The student must have completed three semesters of electrical electronics or have the instructor's permission.

IV. COURSE CONTENT:

- Basic computer Hardware
- OSI Model
- Data communication
- LAN, WAN & Wireless networks
- Plant floor networks

V. LEARNER OUTCOMES :**VII. EVALUATION:**

Demonstrate an understanding of communications systems hardware.	Written quizzes and tests Oral and written reports Homework and projects
List and explain the Communications system hardware.	
Install, troubleshoot and maintain communications circuits and equipment	
Demonstrate an understanding of and identify communications systems media	
Demonstrate a proficiency with computer hardware and software	
Demonstrate an understanding of the OSI model	
Demonstrate an understanding of LAN, WAN and wireless networks	
Demonstrate an understanding of plant floor networks	

VII. The course supports the following general education goals/objectives:DCC Educational Objectives

- Communication
- Critical Thinking
- Information Literacy
- Quantitative Reasoning