DCC

Danville Community College

Workforce Services

Danville Community College

COURSE SYLLABUS

DIVISION: Workforce Services

REVISED: January 2015

CURRICULUM: Electrical Electronics Engineering Technology

COURSE NUMBER AND TITLE: ETR 242, Electronic Communications I

CREDIT HOURS: 4

HOURS/WEEK LECTURE: 2

HOURS/WEEK LAB: 3

LECTURE/LAB COMBINATION: 5

I. **CATALOG DESCRIPTION**
   Studies noise, information and bandwidth, modulation and demodulation, transmitters and receivers, wave propagation, antennas and transmission lines. The course may include broadband communication systems, microwave, terrestrial and satellite, fiber optics, multiplexing and associated hardware.

II. **RELATIONSHIP OF THE COURSE TO CURRICUUM OBJECTIVES**
   The course applies basic circuits to systems, which produced amplitude, and frequency modulated signals for the purpose of transmitting intelligence. Basic circuits are integrated into transmission and receiving systems. The course relates applicable theory to Federal Communication Commission regulations.

III. **REQUIRED BACKGROUND/PREREQUISITES/COREQUISITES:**
   Student must have completed all courses in the first three terms of the Analyst Electronics program or have the instructor's approval.

IV. **COURSE CONTENT:**
   1. Systems concepts
   2. Power supplies
   3. Oscillators
   4. Amplifiers
   5. Modulators
   6. Transmission lines
   7. Antennas
   8. Regulations

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

Demonstrate an understanding of systems concepts	Written quizzes and tests Oral and written reports Homework and projects
Demonstrate an understanding of power supplies	
Demonstrate an understanding of oscillators	
Demonstrate an understanding of amplifiers	
Demonstrate an understanding of modulators	
Demonstrate an understanding of transmission lines and antennas	
Demonstrate an understanding of measurement devices such as meters and oscilloscopes.	
Demonstrate an understanding of schematic reading, troubleshooting communication systems	

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

DCC Educational Objectives
➢   Communication
➢   Critical Thinking
➢   Information Literacy
➢   Quantitative Reasoning