

NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

ETR 241 - ELECTRONIC COMMUNICATIONS I (4 CR.)

COURSE DESCRIPTION

Studies noise, analog modulation and demodulation techniques, radio wave propagation and antennas. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

GENERAL COURSE PURPOSE

The purpose of the course is to provide the student with the fundamentals of the different types of analog modulation and radio links as used in broadcasting and point to point communication.

ENTRY LEVEL COMPETENCIES

Prerequisite or Corequisite: ETR 250 - "Intermediate Electronics"

COURSE OBJECTIVES

As a result of the learning experiences provided in this course, the student should:

- A. know the principles of transmission and reception of electronic communication system
- B. know the modulation techniques and the effect of noise on system performance

MAJOR TOPICS TO BE INCLUDED

LECTURE

- A. Noise and noise parameters
- B. AM
- C. SSB modulation
- D. FM
- E. Radio wave propagation
- F. Antennas

LABORATORY

- A. AM & FM generation
- B. FM transmitter
- C. AM receiver
- D. FM receiver
- E. Antennas