

ETRO 257 : RF Communications

Credits: 4

Class Hours: 8 lecture/lab

Prerequisites: "C" or higher in ETRO 106.

Description: This course studies the general principles and characteristics of a variety of Radio Frequency (RF) Communications Systems. The coverage includes the analysis of digital and analog communications systems, subsystems, modulation techniques, and circuits. RF communication theory will be reinforced in lab with practical hands-on experience.

Semester Offered: Fall, Spring

Course Student Learning Outcomes (CSLOs):

1. Work as a member of a diverse team to solve problems, produce documentation, and do oral presentations.
2. Configure, measure, and demonstrate RF circuits and systems.
3. Demonstrate appropriate personal, professional, and social ethics and responsibility, respecting human diversity and considering ethics of engineering and technician practices.
4. Describe characteristics of communication systems and components using various modulation techniques such as AM and FM and various forms of multiplexing such as TDM and PCM.
5. Explain and analyze transmission lines, antennas, and propagation.