Course Description:

This course introduces the students to the theory and basic principles used in the design and analysis of communication systems. The material covered in this course are fundamental to the analysis and design of every modern communication system, including AM and FM radio, digital audio and video, wireless communication, modems, TV broadcast, optical communication, etc.

Textbook:


References:


Course Outline:

1. Introduction
2. Review of Signals and Systems
3. Linear Modulation
4. Exponential Modulation
5. Sampling and Pulse Modulation
7. Behavior of Analog Communications in the Presence of Noise
8. Principles of Digital Data Transmission
10. Selected Topics from Chapters 14 and 15: Optimum Receiver, Source Coding, and Channel Capacity (if time permits)

Evaluation and Grading:

Homework 20%
Midterm 40%
Final 40%

Note: Regular attendance in class is required. Homework are assigned every week and are due at the start of the class a week from the assignment date. Homework turned in after the due date will not receive credit.