EENG 3920 - Project VI: Modern Communication System Design  
Fall 2017

Instructor: Colleen Bailey PhD, NTDP B252, Colleen.Bailey@unt.edu

Office Hours: Th 11:00 AM to 1:00 PM or by appointment

Lecture/Lab: Th 2:30 PM to 5:20 PM; NTDP B207

TA: Puja Sah, NTDP B245, pujasah@my.unt.edu, MW 12:00 PM to 2:00 PM

Co-requisite: EENG 3520 Electronics II

Course Description: Students are required to design electronic communication systems with electronic devices such as MOS transistors, capacitors and resistors. Topics include LC circuits and oscillators, AM modulation, SSB communications and FM modulation.

Textbook: (required)  

Course Outline:
- Experiment 1: Active Filter Networks
- Experiment 3: Tuned Amplifiers and Frequency Multiplication
- Experiment 6: LC Feedback Oscillator
- Experiment 10: Nonlinear Mixing Principles
- Experiment 11: AM Modulation Using and Operational Transconductance Amplifier
- Experiment 12: RF Mixers and Superheterodyne Receivers
- Experiment 15: Frequency Modulation: Spectral Analysis
- Experiment 16: Phase-Locked Loops: Static and Dynamic Behavior
- Experiment 17: FM Detection and Frequency Synthesis Using PLLs

Grading:
- Labs 45%
- Homework 10%
- Quizzes 25%
- Final Project 20%

Course Objectives: Understand the basic concepts and circuits used in communication systems.

Blackboard: Course material and grades will be maintained on the course Blackboard site. You should check this page often to keep current on important information. https://learn.unt.edu

Rights and Responsibilities:
- Students aware of an authorized absence from a scheduled class or exam (religious observance, military service, official university function, etc.) should notify the instructor as soon as possible according to UNT Policy 15.2.5.
• Students with disabilities should inform the instructor of their needs at the beginning of the semester according to UNT Policy 18.1.14 in order to receive proper attention and accommodations.

• Cheating and academic dishonesty will not be tolerated. Any student found to have participated in academic dishonesty will receive an F in the class, and may be subject to further disciplinary action. Acts of academic dishonesty include: academic fraud (e.g. changing solutions to appeal a grade), copying or allowing one’s work to be copied, fabrication/falsification, plagiarism, sabotage of others’ work, substitution (e.g. taking an exam for someone else). For more details, see UNT Policy 18.1.16.

• Letter grades will not be assigned until the end of the term, after the final exam has been graded. Any letter grade assignment posted before the end of the class should be regarded as tentative and subject to change.