Fall 9-1-2019

Communication Theory

Yi Sun
CUNY City College

Communication Theory

Course	EE 31200/P	**Term:**	Spring 2020
Time	T. Th. 3:30pm – 4:45pm	**Room:**	NAC 5/110
Credits	3	**Contact hrs:**	3 hrs/wk
Prerequisite	EE 20500, EE 31100		

Course Description Amplitude modulation, frequency modulation, noise in amplitude modulation systems, analog to digital conversion, digital modulation and detection techniques.

Outcomes [Code]
1. Knowledge of communication theory and techniques [**a**].
2. Ability to analyze performance of communication systems [**a**] [**n**].

Textbook Electronic materials are available and class notes are self-contained.

Reference A. B. Carlson, P. B. Crilly, and J. C. Rutledge, *Communications Systems*. McGraw-Hill Book Co. ISBN 978-0-07-338040-7. (Optional)

Instructor	Yi Sun		
Room	ST-622	**Phone:**	(212)650-6621
E-mail	ysun@ccny.cuny.edu	**Office hour:**	T. Th. 2:00 – 3:30 pm

TA	TBD		
Room		**Phone:**	
E-mail		**Office hour:**	

Topics
1. Spectral analysis
2. Random processes
3. Amplitude-modulated systems
4. Noise in amplitude-modulated systems
5. Frequency-modulated systems
6. Analog-to-digital conversion
7. Digital modulation techniques
8. Data transmission

Homework Homework is assigned once after a topic is finished and due one week after assignment. No late HW.

Final grade

HW	15%
2 midterm exams	50%
Final	35%

No class