



THE CITADEL

ELECTRICAL & COMPUTER ENGINEERING

ELEC 655-91, Digital Communications
Course Syllabus for Summer 2018
TR 5:15pm – 8:00pm, Room: Grimsley 305

Instructor: Jason S. Skinner, Ph.D., P.E.
Office: Grimsley 310
Phone: 843-953-3352
Email: jason.skinner@citadel.edu
Schedule: <http://ece.citadel.edu/skinner/schedule>

Office Hours: TR 3pm-5pm, and by appointment

Textbook: *Digital Communications*, 5th Edition by John G. Proakis and Masoud Salehi

Description: Introduction to modern digital communication systems. Emphasis on modulation and detection techniques and their performance in the presence of noise.

Websites: Professor - <http://ece.citadel.edu/skinner>
Course - <http://citlearn.blackboard.com>
The course website will be used to post course information (such as this syllabus), lecture slides and notes, homework or project assignments, corrections and answers to questions about assignments, and individual grades.

Course Outline:

Date	Lecture Topics	Required Reading
June 26	Introduction, Deterministic Signal Analysis	Chapter 1 & Sections 2.1–2.2
June 28	Random Variables	Sections 2.3–2.6
June 28	Last Day to Drop/Add a Course	
July 3	Random Processes	Sections 2.7–2.9
July 5	Digitally Modulated Signals	Sections 3.1–3.3
July 10	Power Spectrum of Digitally Modulated Signals	Section 3.4
July 12	Waveform and Vector Channel Models	Sections 4.1–4.2
July 17	Midterm Exam	Chapters 1 – 3
July 19	Optimal Detection and Error Probability	Sections 4.3–4.4
July 19	Last Day to Withdraw with Grade of “W”	
July 24	Optimal Noncoherent Detection	Sections 4.5
July 26	Digital Signaling Methods	Sections 4.6–4.8
July 31	CPM and Performance Analyses	Sections 4.9–4.10
August 2	Signal Parameter and Carrier Phase Estimation	Sections 5.1–5.2
August 7	Symbol Timing and Joint Estimation	Sections 5.3–5.5
August 9	Final Exam	Chapters 1 – 5

Attendance: Attendance is mandatory. Unless circumstances preclude it, it is your responsibility to notify Dr. Skinner of any schedule conflicts or excused absences that will result in your missing class. It is college policy that a grade of F may be awarded to a student if that student misses more than 20% (**3 classes**) of the course meetings (excused or unexcused).

Classroom Decorum: No food or drink is permitted in the classrooms of this building. Proper attire is encouraged, and ECE department policy prohibits hats, cutoffs, shorts, tank tops, and feet without socks in class.

Grading: Students will be graded on everything that is required to be turned in. Requests for regrading must be received no later than one week after the graded material is returned in class. All exams are scheduled well in advance. Due to the potential unfairness of make-up exams, they will only be given in extreme circumstances. Your final grade in the course will be determined as follows:

Homeworks/Projects	20%
Midterm Exam	30%
Final Exam	50%

The grading scale used in this course is:
A = 90 – 100, B = 80 – 89, C = 70 – 79, D = 60 – 69, F = 59 or below.

Cheating and Collaborative Work According to The Citadel’s policies for the preparation of work performed outside the classroom:

All papers, reports, senior essays, theses, or other written work performed outside the classroom for which a grade is received will be the individual’s work and is subject to the limitations imposed by the definition of plagiarism.

According to Webster’s New International Dictionary, 3rd Edition: to plagiarize is defined as ”to steal and pass off as one’s own the ideas or words of another” or to ”present as new and original an idea or product derived from an existing source.”

CHEATING IN ANY FORM WILL BE FULLY PROSECUTED.

Special Needs Students currently documented or anticipate being documented as Learning Disabled (LD), as having Attention Deficit Disorder (ADD), or with another condition for which you might need special accommodation during the semester must provide written documentation of the condition and of the accommodation needed to me within two weeks of the semester start. You may then choose, by notifying Dr. Skinner before the start of each exam or assignment, whether you will need any accommodation. Notification after the start of an exam or last minute notification on an assignment will not be accepted. Please Note: To request academic accommodations (for example, a note taker), students must also register with Academic Support/Special Services, 953-1820, located in Thompson Hall. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements.