

## EE354 Course Policies

### EE 354 – Modern Communication Systems – Spring 2009

<b>Instructor:</b>	Dr. Christopher R. Anderson	318 Maury Hall	<a href="mailto:canderso@usna.edu">canderso@usna.edu</a>	293-6185
<b>Time &amp; Location:</b>	Section 3311: MWF-3, Tu-3&4	Rickover 061		
	Section 5511: MWF-5, Tu-5&6	Rickover 061		
<b>Textbook:</b>	<u>Analog and Digital Communication Systems, 5<sup>th</sup> Edition</u> by Martin S. Roden			
<b>Office Hours:</b>	MWF 4 <sup>th</sup> & 6 <sup>th</sup> Period (in Ri002 MW6). Additionally, you are welcome to drop in any day other than Thursday, but it is generally a good idea to call/email in advance.			

**Course Objectives:** The basic course objective is to understand the fundamental principles which underpin the analysis and design of communication systems. Specifically, having successfully completed this course, the student will be able to:

- Compute the Fourier transform and the energy/power spectral density of communications signals.
- Calculate the bandwidth and signal-to-noise ratio of a signal at the output of a linear time-invariant system given the signal and the power spectral density of the noise at the input of the system.
- Explain the operation of amplitude and angle modulation systems in both the time and frequency domains including plotting the magnitude spectra and computing the power and bandwidth requirements of each type of signal.
- Analyze a given analog or digital communications system in terms of the complexity of the required transmitters and receivers and the power and bandwidth requirements of the system.
- Design a basic analog or digital communications system.

**Absences:** Students are responsible for all material covered in class, whether or not they are present. Students who are absent should make arrangements to obtain copies of the lecture notes from a classmate. Students will be expected to study the notes and the relevant sections of the textbook **prior** to requesting EI from the instructor. You must notify the instructor **well in advance** if you are going to be absent for any exam.

**Announcements and Information:** Students will be expected to access class resources via the Internet. A detailed course syllabus, assignments, homework solutions, grades, etc. will be posted on the main course website ([www.usna.edu/EE/EE354](http://www.usna.edu/EE/EE354)) and on Blackboard.

**Assignments and Grading:** Homework, labs, etc. are assigned and due as specified on the Syllabus. Assignments and due dates may be modified at the instructor's discretion—always check the course website for the most up-to-date information. Whether or not you attend class, you are responsible for turning in assignments on time. **Late work will not be accepted and will receive a grade of 0 (the only exception is a valid excused absence: e.g., Precoms, SIQ, etc)! Students that know ahead of time that they will be missing a class period should contact the instructor as soon as possible prior to the assignment due date. The instructor/professor reserves the right to adjust your final grade based upon a subjective evaluation of your overall course preparation and participation.**

**Project Information:** A class design project will be done by teams of 2-3 people and will require a short report.

**Section Leader:** The Section Leader will be appointed by the instructor and will be responsible for taking attendance for each class. At the start of the class, the Section Leader will call the section to attention and report by name the individuals that are absent. During class the Section Leader will update the attendance book to account for

any tardy students or any students that may leave early. The class will be called to attention by the Section Leader for dismissal at the end of the period. In the event that the instructor/professor is late for class in excess of 10 minutes, the Section Leader will contact the EE Dept. Office at x3-6150. Pending the arrival of someone to take charge of the class, the Section Leader will supervise the class in a study period, will collect any homework due for that period, and will deliver the homework to the EE Department Office at the end of the period if no instructor arrives. The section leader will also be responsible for providing a written report of attendance and keeping track of bonus points earned by midshipmen during the class period.

**Honor Concept:** The Honor Concept will be observed in this class. If there are any questions related to the Honor Concept and its applicability to any assigned work, please contact the instructor for clarification. Unless otherwise directed by the instructor, all graded work is expected to be the original work of the student or, in the case of authorized group assignments, the entire group. Giving or receiving unauthorized assistance on a graded assignment is a violation of the Honor Concept.

### **Mid-Semester Grade Weightings**

<b>6 Week Grade</b>		<b>12-Week Grade</b>		<b>16-Week Grade</b>	
Exam 1	35%	Exam 1	25%	Exam 1	15%
Labs	30%	Exam 2	25%	Exam 2	15%
HW	25%	Lab Practical	15%	Exam 3	15%
Class Participation	10%	Labs	15%	Labs	15%
		HW	10%	Design Project	20%
		Class Participation	10%	HW	10%
				Class Participation	10%

### **Final Grade Weightings**

Highest Exam Score	15%
Exam 2	10%
Exam 3	10%
Final Exam	20%
Labs	15%
Homework	10%
Design Project	15%
Class Participation	5%