



Department of Electrical and Computer Engineering

COURSE OUTLINE

ELEC 350 – Communication Theory and Systems: I

Term - FALL 2014 (201409)

Instructor

Dr. Hong-Chuan Yang
Phone: (250) 721-8672
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Office Hours

Days: Wednesdays
Time: 11:30am – 12:30pm or by appointment
Location: EOW 421

Lectures

A-Section(s): A01/CRN 11194, A02/CRN 11195
Days: Tuesday, Wednesday, and Friday
Time: 10:30 ~ 11:20 am
Location: DTB A102

Labs

B-Section(s): Days: Time(s):
B01/B02 Tuesday 2:30-5:20pm
B03 Wednesday 2:00-4:50pm
B05/B06 Thursday 12:00-2:50pm

Location: ELW A309

Required Text

Title: Communication Systems
Author: M. S. Alencar and V. C. da Rocha
Publisher: Springer
Year: 2005

Optional Text

Title:
Author:
Publisher:
Year:

References:

- S. Haykins and M. Moher, Communication Systems, 5th Ed, Wiley, 2009.
- C. R. Johnson, W. A. Sethares, and A. G. Klein, Software Receiver Design, Cambridge, 2011.
- R. Yates and D. Goodman, Probability and Stochastic processes, Wiley, 1999.
- J. Proakis and M. Salehi, Fundamentals of Communication Systems, Prentice Hall, 2004.

Assessment:

Assignments:	10	%
Labs	15	%
Mid-term	25	%
Final	50	%

Date: TBD

Note: Failure to complete all laboratory requirements will result in a grade of N being awarded for the course.

Prerequisites:

ELEC 310 Digital Signal Processing I and ELEC 330 Electronic Circuits I

Course Homepage:

<http://coursespaces.uvic.ca/>: Log in with your University of Victoria Netlink ID and Password.

The final grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

Passing Grades	Grade Point Value	Percentage for Instructor Use Only	
A+	9	90 – 100	
A	8	85 – 89	
A-	7	80 – 84	
B+	6	77 – 79	
B	5	73 – 76	
B-	4	70 – 72	
C+	3	65 – 69	
C	2	60 – 64	
D	1	50 – 59	
Failing Grades	Grade Point Value	Percentage for Instructor Use Only	Description
E	0	0 - 49	Fail, *Conditional supplemental exam. (For undergraduate courses only)
F	0	0 – 49	Fail, no supplemental.
N	0	0 – 49	Did not write examination, Lab or otherwise complete course requirements by the end of term or session; no supplemental exam.

**Assignment of E grade will be at the discretion of the Course Instructor.*

The rules for supplemental examinations are found on page 80 of the current 2014/15 Undergraduate Calendar.

Term in which E Grade Was Obtained	Application Deadline for Supplemental Exam	Supplemental Exam Date
First term of Winter Session (Sept – Dec)	February 28 in the following term	First week of following May
Second term of Winter Session (Jan – Apr)	June 30 in the following term	First week of following September
Summer Session (May – Aug)	October 31 in the following term	First week of following January

Deferred exams will normally be written at the start of the student's next academic term; i.e., approximately 4 months following the deferral of the exam.

Course Objectives

To introduce various fundamental concepts of electronic communication systems, including principles of amplitude, frequency, and phase modulation; design of modulators and demodulators; link budget analysis; modulation systems in the presence of noise; introduction to elementary digital communications.

Assignments:

There will be eight to nine problem sets. The assignments will be due in the drop box in EOW on the due dates. The solutions will be posted on the next day. As such, late assignment will not be accepted. The assignment with the lowest grade will not be counted.

Labs:

Lab session starts in the week of September 22. There will be four labs, which are adapted from the labs used last year. Lab manual will be posted on line.

Exams:

There will be one midterm exam and one final exam. Both exams will be closed-book and closed-note. Two formulae sheets are allowed for midterm. Four formulae sheets are allowed for the final. The midterm is tentatively scheduled in class on Wednesday, Oct. 29.

Syllabus:

- Overview of communication systems
- Linear modulation
- Angle modulation
- Link budget analysis
- Introduction to digital modulation
- System performance in noise

Note to Students:

Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the ECE Chair by email or the ECE Chair's Secretary eceasst@uvic.ca to set up an appointment.

Accommodation of Religious Observance

See <http://web.uvic.ca/calendar2014/GI/GUPo.html>

Policy on Inclusivity and Diversity

See <http://web.uvic.ca/calendar2014/GI/GUPo.html>

Standards of Professional Behaviour

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at <http://www.uvic.ca/engineering/current/undergrad/index.php#section0-25> which contains important information regarding conduct in courses, labs, and in the general use of facilities.

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult

<http://web.uvic.ca/calendar2014/FACS/UnIn/UARe/PoAcl.html> for the UVic policy on academic integrity.