University of Portland (UP)
School of Engineering

EE 262 – Signals and Systems – 3 cr. hrs.
Spring 2013
Tentative Course Outline Sheet

Course purpose: The purpose of this course is to introduce the students to properties and principles of signals and systems. Some applications with specific emphasis encountered in electrical and/or electronic systems will also be covered.

Learning objectives: At the successful completion of this course, the student is expected to gain the following skills:

- Become familiar with the properties of both continuous- and discrete-time signals;
- Become familiar with the properties of both continuous- and discrete-time systems;
- Understand Linear Time-Invariant (LTI) systems and their applications;
- Understand Laplace transform and its applications;
- Understand Fourier representations and their applications;
- Understand z-transform and its applications;
- Be able to utilize appropriate software packages (e.g., MATLAB) to analyze signals and systems

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> "*I prefer death to lassitude. I never tire of serving others,*"
> by Leonardo da Vinci (1452$-$1519)

Lecture hours: MWF 9:15-10:10 (Location: Shiley Hall 123)

Textbook: *Engineering Signals and Systems* by F. T. Ulaby & A. E. Yagle (National Technology and Science (NTS) Press, ISBN 978-1-934891-16-2, 2013)

Course content: Signals (Chapter 1)

Linear Time-Invariant (LTI) Systems (Chapter 2)
Laplace Transform (Chapter 3)
Applications of Laplace Transform (Chapter 4)
Fourier Analysis Techniques (Chapter 5)
Applications of Fourier Transform (Chapter 6)
Discrete-Time Signals and Systems (Chapter 7)

Prequisite: EE 261.

Grading policy: The <u>total numerical grade</u> is computed based on the following percentages:
- 20% for homework
- 50% for the two midterm exams (25% each) and
- 30% for the final exam

The <u>final letter grade</u> in the course is assigned based on the following total numerical grade intervals out of a total of 100 points:

90–100	A^--A	(Excellent Performance)
80–89	B^--B^+	(Good Performance)
70–79	C^--C^+	(Average Performance)
60–69	D^--D^+	(Poor Performance)
<60	F	(Inadequate Performance)

Typically, the <u>numerical average</u> of the total numerical grades is assigned to about a B^- grade.

Exam Dates: The exam dates are tentatively set as follows:

<u>Midterm #1</u>–Wednesday, February 20, 2013
<u>Midterm #2</u>–Friday, April 5, 2013
<u>Final Exam*</u>–Thursday, May 2, 2013, 10:30-12:30
*Comprehensive and mandatory for all the students.

N☺-class Dates: Monday-Friday, March 11 through 15, 2013 (Spring Break)
Friday & Monday, March 29 & April 1, 2013 (Easter Break)
Tuesday, April 9, 2013 (Founder's Day Presentations*)
*Attendance expected.

Homework: Weekly homework will be assigned. Homework assignments are mandatory, that is, every student is expected to do the homework assignments <u>on time</u> to qualify for consideration to receive a passing grade in the course.

Sorry, but, <u>no late homeworks will be accepted</u>!!☹
Therefore, <u>no late homeworks will be expected</u>!!☺

UP's code of academic integrity: Academic integrity is openness and honesty in all scholarly endeavors. The University of Portland is a scholarly community dedicated to the discovery, investigation, and dissemination of truth, and to the development of the whole person. Membership in this community is a privilege, requiring each person to practice academic integrity at its highest level, while expecting and promoting the same in others. Breaches of academic integrity will not be tolerated and will be addressed by the community with all due gravity (taken from the University of Portland's Code of Academic Integrity).

The complete code may be found in the 2012-2013 University of Portland Student Handbook and as well the Guidelines for Implementation. It is each student's responsibility to inform him or herself of the code and guidelines.

Assessment Disclosure: Student work products for this course may be used by the University for educational quality assurance purposes.

Accomodation for disability: If you have a disability and require an accommodation to fully participate in this class, contact the Office for Students with Disability (OSWD), located in the University Health Center (503-943-7134), as soon as possible.

Thursday, January 17, 2013 marks Benjamin Franklin's 307th birthday!
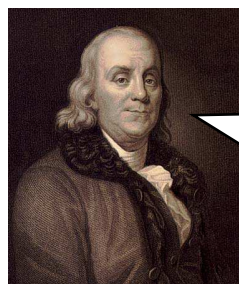
What is special about my 307th birthday this year?

Hint: Can you express 307 in terms of powers of 17?