Elc 102.1 Syllabus

1st Semester, SY 2008-2009

Department of Electronics, Computers, & Communications Engineering
School of Science and Engineering
Ateneo de Manila University

Course Title: Electronics I
Course Credit: 3 units
Course Description: This course is designed to introduce students to electronic semiconductor devices. It discusses basic principles, equivalent models, AC/DC circuit analyses and synthesis of semiconductor devices, esp. the semiconductor diode and the bipolar junction transistor (BJT).

Course Objectives: T**he student is expected...**

1) To understand the concept involved in electronic semicon devices;
2) To know the electrical characteristics of diodes and BJTs;
3) To appreciate and use the equivalent models of diodes and BJTs;
4) To correctly analyze and solve circuits involving diodes and BJTs.
5) To be familiar and be able to design with diode and BJT circuits.

Course Topic Outline:

I. Semiconductor Diodes
II. Diode Circuits and Applications, DC Sources
III. Diode Circuits and Applications, AC+DC Sources
IV. Bipolar Junction Transistors
V. DC Biasing of BJTs
VI. BJT Circuits and Applications
VII. BJT Small-Signal Analysis
VIII. Systems Approach – Effects of R_S and R_L
IX. BJT Frequency Response

Course Text (Lecture):

Robert L. Boylestad, & Louis Nashelsky, **Electronic Devices and Circuit Theory**, 8th ed. NJ: Prentice Hall, 2001.

Course References (Lecture): *(or newer editions/versions)*

Malvino, **Electronic Principles**, 4th ed. New York: McGraw Hill, 1989.

Suggested Tutorial Sites:

1. http://hyperphysics.phy-astr.gsu.edu/hbase/solids/diod.html
2. http://www.science-ebooks.com/electronics/
3. http://www.americanmicrosemi.com/tutorials.htm

Course Requirements and Grading System:

Lecture
Quizzes / Recitation
Problem Sets / Reports
Long Exams

Grading System

93 & above	A
87 - 92+	B+
80 - 86+	B
73 - 79+	C+
67 - 72+	C
60 - 66+	D
below 60	F

Class Policies:

1) Students are expected to have read the topic **ahead of class time**.
2) Attendance will be checked (by the beadle). This will be done 5 minutes after the second bell, after which tardiness will be considered a cut. There is no distinction between excused and unexcused absences.
3) Maximum allowed number of cuts is 9 (lecture) and 3 (laboratory). Exceeding the number of allowable cuts merits a grade of W.
4) No make-up quiz/recitation/report/exam will be given. Conflict in schedules should be relayed to the teacher in advance.
5) All projects, experiments and reports get a 10% deduction for every day late (counting non-working days).
6) In this class, academic dishonesty includes, but is not limited to, cheating, plagiarizing, having unauthorized possession of examinations, passing off someone else's (book, internet sites, etc.) work as one's own, or tampering with the academic work of other students. Those who are caught committing acts of academic dishonesty automatically get a zero for that particular course work.

Course Instuctor: Jose Claro Monje
Consultation Hours: MWF: 10:30AM – 12:00N; TTH - by appointment

==========

I have read and understood the contents of this material, Elc 102.1 Syllabus. I also agree to be bound by the class policies stated herein.

_____ _____

Signature over Printed Name Date