

ESE 211 Electronic Laboratory A, Fall 2011

Instructor: *Prof. Gregory Belenky*
Room 209 Light Engineering Bldg.

Course Website: <http://www.ece.sunysb.edu/~oe/ese211.html>

Prerequisites: MAT 127 or 132 or 142 and
PHY 126 or 132 or 142 and
ESE 271

Corequisites: ESE 372 for ECE/ESE majors only

Credits: 2

Time and Locations:

Lecture: Monday 9:35-10:30 AM
113 Physics Section 1
Lab Section 1: Tuesday 6:50-9:50 PM
283 Light Engineering Bldg. Lab Section 2
Lab Section 2: Thursday 6:50-9:50 PM
283 Light Engineering Bldg.

TA Office Hours: TBA

Textbooks: Basic Electronic Circuit Analysis by David E. Johnson, et al.
Microelectronics Circuit Analysis and Design by Donald Neamen

Laboratory experiments (Room 283, except Labs 1 and 6):

- Lab 1 Analysis of DC and AC circuits using PSPICE (Room 281, anytime during the CADLAB open hours)
- Lab 2 DC voltage and current measurements
- Lab 3 AC measurements
- Lab 4 Transient response of 1st order RC and LR circuits
- Lab 5 Frequency response of 1st order RC and LR circuits
- Lab 6 Frequency response of 2nd order circuits (Room 281, anytime during the CADLAB open hours)
- Lab 7 Transformers. Semiconductor diodes
- Lab 8 Diodes in rectifier circuits
- Lab 9 BJT large-signal and small-signal parameters
- Lab 10 BJT gain stage: frequency and transient responses
- Lab 11 MOSFET differential amplifier
- Lab 12 Circuits with Operational Amplifiers
- Lab 13 Operational Amplifier Design

Grading: **Labworks - 45 %**
 Test 1 - 20 %
 Test 2 - 20 %
 Quizzes - 15 %

You will select a laboratory partner at the first meeting of your laboratory section. Groups of more than two students are not permitted. You must be registered for one of the laboratory sections.

Laboratory section changes will be permitted during the first two weeks of classes, if space is available in the section to which you wish to change. To change sections you must talk to Mrs. Huggins in Room 267 of Light Engineering Building.

Each laboratory manual contains preliminary lab sections which help you to understand the purpose of upcoming laboratory experiments. You must work on the preliminary lab before coming to your laboratory section. The data obtained during laboratory experiments must be approved by TA once the work is completed. The laboratory report, together with the preliminary lab, must be submitted to a TA by the beginning of the next laboratory session.

It will not be possible to make up missed laboratory work. Report submission after deadline will lead to subtraction of points. Any questions regarding the grading of exams or laboratory work must be resolved within one week after the work is graded.

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, 128 ECC Building (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following web site: <http://www.ehs.sunysb.edu> and search Fire Safety and Evacuation and Disabilities.