

Fall 2011

ESE 211 Electronic Laboratory A

Instructor: G.Belenky Room 209 Light Eng.

Web site: <http://www.ece.sunysb.edu/~oe/ese211.html>

Syllabus

**Prerequisites: MAT 127 or 132 or 142; PHY 126 or 132 or 142;
ESE 271**

2 Credits

Laboratory experiments (Rm. 283, except Labs 1 and 6)

Lab 1. Analysis of DC and AC circuits using PSPICE (Rm. 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 (Rm 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

COURSE: ESE 211 Electronic Laboratory A

TEXT USED:

D.Johnson et al., “Basic Electronic Circuit Analysis” (**ESE211** weeks 1-6).

Chapters covered : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15

D.Neamen, “Electronic Circuit Analysis and Design” (**ESE211** weeks 7-13).

Chapters (paragraphs) covered by:

- 1 (1.1-1.5)
- 2 (2.1-2.2)
- 3 (3.1-3.6)
- 4 (4.1-4.5)
- 5 (5.1-5.2)
- 7 (7.1-7.3)
- 9 (9.1-9.5)
- 11 (11.1-11.2, 11.6-11.8)
- 12 (12.1-12.10)
- 14 (14.1 -14.5)

Grading

Labworks-45%; Test#1 -20%; Test #2 -20%

Quizes-15 %;

Lectures will be held: **PHYSICS P 113**

Monday 9:35-10:30AM

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 following **laboratory sections**:

Lab. Sec. 1 Tu 6:50PM - 9:50PM Lt. Eng. Rm283

Lab. Sec. 2 Th 6:50PM - 9:50PM Lt. Eng. Rm283

Laboratory section changes will be permitted during the first two weeks of class, 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 the Light Engineering Building.

Laboratory assignments are generally provided one week before they must be performed in the laboratory. Your completed laboratory report must be submitted to your TA by the end of your laboratory session. It will not be possible for you to make up missed laboratory work.

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 on your ability to carry out assigned course work, you are urged to contact the staff in the Disabled Student Services office (DSS), Room 133, Humanities, 632-6748/TDD. DSS will review your concerns and determine, with you, what accommodations are necessary and appropriate.