

EE 100B: Electronic Circuits II

Winter 2018

COURSE OUTLINE

This is a one-quarter course for 4 credits. The course contents include differential and multistage amplifiers, feedback, output stages, oscillators, and CMOS digital logic circuits. Laboratory experiments are performed in the subject areas and SPICE simulation is used.

COURSE LEARNING OBJECTIVES¹

1. Design and analysis of current mirrors and amplifiers with active loads.
2. Analysis of differential and multistage amplifiers.
3. Understanding of negative feedback, including closed-loop gain and input/output resistances.
4. Design and analysis of output stages.
5. Understanding of operation principles of signal generators.
6. Understanding and design of CMOS inverter and logic gates.
7. Ability to use simulation software for analysis of electronic circuits.
8. Performing laboratory experiments with electronic circuits containing BJTs and MOSFETs.

¹ Learning objectives are typical assignment that students should be able to perform at the end of EE100B course.