

COLLEGE OF CHEMISTRY COURSE GUIDE (../MAJOR.HTML)

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EE 140 - LINEAR INTEGRATED CIRCUITS (4 UNITS)

(Taken from the UC Berkeley Course Guide (<http://guide.berkeley.edu>))

COURSE OVERVIEW

SUMMARY

Single and multiple stage transistor amplifiers. Operational amplifiers. Feedback amplifiers, 2-port formulation, source, load, and feedback network loading. Frequency response of cascaded amplifiers, gain-bandwidth exchange, compensation, dominant pole techniques, root locus. Supply and temperature independent biasing and references. Selected applications of analog circuits such as analog-to-digital converters, switched capacitor filters, and comparators. Hardware laboratory and design project.

PREREQUISITES

EE 105 ([ee105.html](#))

WORKLOAD

TIME COMMITMENT

3 hours of lecture, 1 hour of discussion, and 3 hours of laboratory per week.

COLLEGE OF CHEMISTRY PEER SERVICES

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