SYLLABUS PHYS. 29a

Analog/Digital Circuits and Devices.
Lecture and Laboratory.
Six hours/week

Text: Meyer-Basic Electronics: An Introduction to Electronics for Science Students (2nd Edition)
(www.lulu.com search for Curtis Meyer)

TOPICS

1) DC Circuits- Thevinin's Theorem

2) AC Circuits- Complex Impedances, Resonances

3) Signals and Filters
   Passive RC, LRC filters

4) Bipolar Transistors
   Models
   Amplifier configurations
   Multiple transistor circuits

5) Operational Amplifiers-
   Feedback

6) Power Supplies

6) Digital Devices
   Gates
   Number system
   Decode, Displays
   Flip-flops, Registers

TOOLS

1) Laboratory Work- Scopes, Meters, Breadboards, Devices, Data Capture

2) Analytic- Data analysis, Spreadsheets