

# ECE 327: *Electronic Devices and Circuits Laboratory I*

## Notes for Lab 0 (Introduction/Instrumentation Lab)

1. Class introduction (instructor policies take precedence)
  - Distribute syllabus
  - Introduce instructor
    - Contact information
    - Office hours
  - Purpose of course
    - **3** – Rank 3/4 students, **2** – Circuits course, **7** – Not MOSFET-heavy 323
    - Introduction to *analog* electronics. Focusses on *application* of (discrete) electronics
      - \* Here, electric waveforms are *analogous* to input acoustic (pressure) waveforms
    - *Originally* was meant to complement ECE 323
    - BJTs and operational amplifiers (i.e., focus on *active-mode analog* electronics)
    - New course organization and history (i.e., history of senior-level ECE 427 and prereqs)
  - Other labs (analog – **ECE 628**, quarter project – ECE 667, bad matches – ECE 710/723)
  - Grades (instructor policies take precedence)
    - Daily quizzes (20%), Lab reports (40%), Lab clean-up (10%), Final exam (30%)
  - Breadboards and **FLOPPY DISKS** (or a decent camera)
  - Table seating
2. Introduction to lab texts
  - Contents of UniPrint Notes
    - Lab introduction
    - **Project description**
    - **Parts list**
    - **Part pin-outs**
    - 7 laboratory texts
    - End-of-quarter project (omitted)
  - Supplementary texts from instructor (available on-line)
  - Horowitz and Hill's *The Art of Electronics* (optional)
  - Sedra and Smith's *Microelectronic Circuits* (optional)
3. Introduction to quarter project (infrared audio modem and amplifier to drive  $8\Omega$  speaker)
4. Instrumentation refresher “lab” – complete short laboratory described in handout
5. **Reminder about breadboards and floppy disks** (or decent cameras)