

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

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

### 1. Class introduction

- Course web page: <http://www.ece.ohio-state.edu/~pavlict/ece327/>
- Distribute syllabus (also available on-line)
- Instructor
  - Ted Pavlic (sounds like “**maverick**”)
  - E-mail: [pavlic.3@osu.edu](mailto:pavlic.3@osu.edu) (put “**ECE 327**” in your subject)
  - Office (CL 351) hours: See [web page](#) for hours. Appointments (and, usually, walk-ins) OK.
- Purpose of course
  - **3** — Rank 3/4 students, **2** — Circuits course, **7** — Not MOSFET-heavy 323
  - Introduction to *analog* electronics. Focuses 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 (Carmen and course website)
  - Daily quizzes (20%), Lab reports (40%), Lab clean-up (10%), Final exam (30%)
  - Lab report grading rubric given on course web page (note: 2% **L<sup>A</sup>T<sub>E</sub>X** bonus)
  - Final letter grade curve
- Make-up dates (after class? Thursday mornings?)
- 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* (awful... I mean, optional)

### 3. Introduction to quarter project (infrared audio modem and amplifier to drive 8 $\Omega$ speaker)

### 4. Ungraded pre-quiz

- **NAME** and **TABLE NUMBER** on quiz
- Pre-quiz (~10 minutes)
- Solution

### 5. Instrumentation refresher “lab” — complete short laboratory described in handout

### 6. **Reminder about breadboards and floppy disks** (or decent cameras)