

ECE 323 WINTER 2017: LAB RELATED INFORMATION

The lab meets in Dearborn 208, 3 hours/week. To obtain access to the lab please see staff at the Main Office in KEC, Room 1148.

<u>Day</u>	<u>Time</u>	<u>Lead TA</u>	<u>Lead TA email</u>
Tues	3:30pm-6:20pm	Dan Taylor	taylor2@oregonstate.edu
Tues	6:30pm-9:20pm	Dan Taylor	taylor2@oregonstate.edu
Wed	6:30pm -9:20pm	Bohui Xiao	xiaob@oregonstate.edu
Thurs	6:30pm -9:20pm	Bohui Xiao	xiaob@oregonstate.edu

If you have any questions regarding the material or scheduling of the lab contact Dan Taylor: taylor2@oregonstate.edu

LOGISTICS

- Everyone should pick up their ECE 323 parts kit from the Tekbots store before Lab 2.
- Beginning with lab 2 you will need to bring your Tekbots kit to lab each week. It is your responsibility to have the necessary tools (soldering tools, scope probes, jumper wire, etc.).
- We strongly encourage you to keep a dedicated notebook to keep your lab work.
- Please check your ONID email and Canvas frequently as this is how we will communicate with you.
- Bring a copy of the lab instructions each week. You must at least print the page titled "TURN-IN" as we will be collecting these for grading.
- Work in groups of at least 2 but everyone will build their own power supply.
- Lab work (pre-lab and study questions/report updating from the previous week) will be **due at the beginning of lab that you are enrolled in**. Pre-labs are collected and must be complete before you can begin lab. Please **attempt to complete everything outlined in the lab manual**. The only way to receive no credit is to not do it.
- You will be giving a ~10 min presentation during Week 10. More details to follow.
- One TA will be holding office hours during the section but he is also available to answer lab questions if the head TA is not. Only the head TA can check-off a demo.
- Pre-labs are due at the beginning of the corresponding lab. Reports are due the first week of the following lab.

EACH LAB WILL BE GRADED AS FOLLOWS:

Each week in lab is given 100 points.

- Lab 1: LTSpice (1 week → 100 points)
- Lab 2: Design the Prototype (2 weeks → 200 points)
- Lab 3: Prototype & Construction (2 weeks → 200 points)
- Lab 4: Project Improvement (3 weeks → 400 points)

Each lab is graded according the following breakdown:

Lab 1: Report (100%)

Lab 2: Pre-lab (25%), Report (75%)

Lab 3: Pre-lab (25%), Implementation (25%), Test & Verification (25%), Report (25)

Lab 4: Check-off (10% old specs and 40% improvement specs), Presentation (50%)

Note: An additional 2% extra credit is available at the TA's discretion on each lab.

Pre-labs are due at the beginning of the lab that you are enrolled in. Reports are due the first week of the following lab.

GUIDELINES FOR THE REPORT: Lab reports must be typed. Hand-written reports will not be accepted.

Lab reports must include:

- Schematic of the circuit implemented. All components must be clearly labeled and values shown.
- Description of the circuit (what it does & how)
- Data (must be signed off by TA prior to leaving lab)
- Results and discussion (incl. answers to all questions in the assignment)
- LTSPICE and oscilloscope capture, if appropriate

LAB SCHEDULE (SUBJECT TO CHANGE)

Week#	Lab Manual Section Title	To Turn In
1	Section 1 – LTSpice	Nothing
2	Section 2 – Design The Prototype: Gain Amplifier	Prelab for section 2 (part 1) Section 1 report
3	Section 2 – Design The Prototype: Power Amplifier	Prelab for section 2 (part 2)
4	Section 3 – Prototype Construction	Prelab for section 3 Section 2 report
5	Section 3 – Prototype Construction	Nothing
6	Section 4 – Project Improvement <i>Checkpoint 1: Prototype Demo</i>	Prelab for section 4 (Checklist) Section 3 report TURN-IN sheet from section 3
7	Section 4 – Project Improvement	Nothing
8	Section 4 – Project Improvement	Nothing
9	Section 4 – Project Improvement	Nothing
10	Final Lab <i>Checkpoint 2: Improvement Demo</i>	TURN-IN pre-lab sheet from section 4 Final Presentation