ECE1100: Lab for Intro to Elect/Comp Engineering Spring 2025 Syllabus

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Office Hours: By appointment

EE1100 Lab Times and Locations:

CRN 33928 – TR 8:30am-11:20am
Room: Engineering E301E

Laboratory Course Description (ECE1100): Introduction to Electrical Engineering laboratory procedures, causes, and correction of errors in measurements theory of operation and usage of basic Electrical Engineering test instruments, data collection, and report writing. **Co-requisite:** ECE1300.

Course Website: Additionally, a course website is available that will include the syllabus, class schedule, PowerPoint lectures, and other resources (syllabus/schedule, homework list, required lab supplies, report resources, soldering videos, and other resources). The course website also includes instructor and TA contact information.
http://www3.ece.utep.edu/courses/web1305/EE1305/index.html

COVID-19 PRECAUTION STATEMENT
Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you have tested positive for COVID-19, prior to, after, and/or during your time enrolled in your course(s), you are highly encouraged to report your results to covidaction@utep.edu as well as to let our office know at ppp@utep.edu.
The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

Learning Outcomes:

1. Become familiar with the Analog Discovery device/ ADALM2000 (oscilloscope and waveform functions).
2. Use MATLAB to model experimental data.
3. Analyze Simple Circuits using KVL, KCL and voltage divider methods.
4. Build circuits using passive and active components. Build and analyze signals through circuits with low pass, high pass and band pass filters.
5. Use Bode Plots to characterize filters and predict signal response.
6. Build circuits using sensor inputs to create a measurable output.
7. Use complex impedance to model and analyze Op-Amp circuits.

Textbook: None. All course material for the laboratory is included on Blackboard and the course website. Lecture power point slides are available that provide a comprehensive resource for learning fundamental circuit theory with plenty of examples and links to educational videos. Optional textbook are listed on the lecture syllabus.

Course Communication: Announcements will be posted in **Blackboard** and emails will be sent on a regular basis. They will appear on your Blackboard dashboard when you log in and/ or will be sent to you directly through your UTEP email ID. Please make sure to check them regularly, as they may contain important information about upcoming assignments or class problems. In courses it is normal to have many questions about things those relate to the course, such as clarification about worksheet (pre-lab or post-lab questions), lab procedure, and data analysis. Please feel free to email me or TAs whenever you have specific queries or concerns.

Teaching Assistants:
The teaching assistants will deliver the labs and lab lectures.

Course Grade: Your grade for ECE1100 will consist of the following components:

First 8 Lab Modules/Reports corresponds to 80% of the final grade (10% for each lab demonstration/Worksheet-report).

For each lab, students will get maximum 100 points divided as follow:
Prelab - 20 points, Demonstration-40 Points, and worksheet/Lab report- 40 points.

Worksheet/Lab report must include a conclusion - At least one paragraph (4 lines) where final conclusions of the observations, and applications of the circuit implemented must be provided. 10 points will be reduced if conclusion is not included in the worksheet/Lab report.

Students must submit the worksheet/lab report before next Lab session. A worksheet/lab report template and rubric are provided on the course website to help students understand the W/lab report requirements.

Final Lab Module & Lab Report: corresponds to 20% of the final grade.

For the final lab, students will get maximum 200 points divided as follow:

Prelab - 40 points, Demonstration -80 Points, and Formal Lab report- 80 points.

The Lab report must include a conclusion - At least one paragraph (4 lines) where final conclusions of the observations, and applications of the final circuit implemented must be provided. 20 points will be reduced if conclusion is not included in the Lab report.

The last lab of the course will ask students to write up a more formal lab report format than other labs. An example and rubric will be located on the website/Blackboard.

Grading Scale:
90 to 100=A , 80 to 89=B, 70 to 79=C, 60 to 69=D, 0 to 59=F

Attendance: In order to be successful in the course, attendance in the lab sessions is **MANDATORY** for each module. In case of absence, the student is responsible for obtaining notes, handouts, and assignments and will be required to meet the same deadlines as the rest of the class. For the implementation/Demonstration part, please contact your TA. If you do have an emergency, please notify me or TAs as soon as possible. Emergencies happen, unexpected situations arise, and you should use common sense and safe precautions when trying to access online lecture sessions and/or lab sessions.
NOTE: If a student fails to attend one or more labs and does not demonstrate circuit implementation, he or she will be unable to submit the worksheet and will receive a zero grade

Late lab reports /worsheets are not allowed unless arrangements are made with the instructor/TA prior to the deadline.

Teams: Student teams will typically consist of 2 to 3 students per team and students will be on the same team during the lab course. During these assignments, students are still individually accountable for their own work, and should NOT copy from another student's paper. All labs modules are individual assignments. Students should **NOT** complete work for other students or **COPY** work from other students, but they are encouraged to share their knowledge to help others understand challenging concepts. **All data and content submitted in all student lab reports should be individual and reflect their individual lab results and calculations.**

Course Drop Deadline: July 16th, 2025

Drop Policy: Students can drop the course before July 16th 2025 with a grade of "W". Students who drop the course after this date will be assigned the grade earned in the course.

Scholastic Integrity: As an entity of The University of Texas at El Paso, the Department of Electrical and Computer Engineering is committed to the development of its students and to the promotion of personal integrity and self-responsibility. The assumption that a student's work is a fair representation of the student's ability to perform forms the basis for departmental and institutional quality. **All students within the Department are expected to observe appropriate standards of conduct. Acts of scholastic dishonesty such as cheating, plagiarism, collusion, the submission for credit of any work or material that are attributable in the whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student, or the attempt to commit such acts will not be tolerated. Any case involving academic dishonesty will be referred to the Engineering Dean's Office and the Office of the Dean of Students.** The Dean of Students will assign a Student Judicial Affairs Coordinator who will investigate the charge and alert the student as to its disposition. Consequences of academic dishonesty may be as severe as dismissal from the University. See the Office of the Dean of Students' home page at www.utep.edu/dos/acadintg.htm for more information.

Policy relating to Disability / CASS: In Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, if a student needs an accommodation then the Office of Disabled Student Services located at UTEP need to be contacted. If you have a condition, which may affect your ability to perform successfully in this course, you are encouraged to discuss this in confidence with the instructor and/or the director of the Disabled Student Services. Written guidelines r/t accommodations from CASS must be submitted to the course manager PRIOR to the start of the course. If you have a disability and need classroom accommodations, please contact CASS at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. *CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.*

Acknowledgement:
I acknowledge that I have received the syllabus for ECE1300 and ECE 1100 for the Summer 2025 semester, and that I understand all attendance, competency, and assignment requirements.

Print Name and Signature

Date