

ECE 3341 ELECTRONICS I

Instructor: Dr. John Moya
Office: E305 (Engr. Building)
Phone: 747-6972
E-Mail: jmoya@utep.edu

COVID and Other Disease Precautions: I highly encourage you to both use vaccines and to wear a mask, whether you are vaccinated or not, when appropriate. I take vaccines, but I will still be wearing a mask at UTEP based on conditions at the time. I routinely do not wear a mask at present because I feel I am safe enough, but after contracting COVID anyway, I had side effects that still give me issues. Via empirical and scientific evidence, both vaccines and masks help a lot. So please wear a mask in class to protect your classmates and professors, when appropriate. Most of your professors are old enough that diseases, especially COVID, could be very bad news. Another consideration, particularly for this class, is that I am the only one that can teach this course, and if I get sick, it may be quite hard to finish the class. Like in other areas in ECE, there are no easy substitute professors. So protect me, and the rest of the ECE professors, so that we can teach the full semester. Please also note I am the caretaker for my elderly father.

Office Hours: My office is not setup well to have face-to-face office hours. I have the following practice. You can come by my office and knock, or preferably call (747-6972), and we can discuss the situation. If we need to meet, I exit my office and we can meet in the big open area outside my office or perhaps a conference/class room. I will specify office hours during lecture or you can ask.

Course Description: Continuation of Electrical Circuits II (ECE 2302) and introduction to electronic devices. Material covered includes: Diode, Op Amp, and Field Effect Transistor circuits.

Prerequisite: C or better grade in ECE 2302 and ECE 2102.

Textbook: Microelectronic Circuits (recent edition), by Adel Sedra and Kenneth Smith.

Course Outcomes: Students will

- 1) understand the design aspects of and be capable of analyzing circuits containing Diodes, Op Amps, and Field Effect Transistors.
- 2) demonstrate competence in written technical communication, via the lab.

Course Format: The course will utilize a modular, student-centered, problem-based approach. Modular means that the course will be divided into 4 sections: Review, Op-Amps, Diodes, and Transistors. Student-centered means that students will be expected to utilize self-study material that will be provided to prepare for class. Class time will be significantly devoted to problem discussion. Course modules will be started with a question like “What needs to be known to design a power supply?”. Students will answer these questions via guided group exploration. Resources for answering the questions will include self-study materials, textbooks, the internet, the professor, etc. After some initial exploration, students may be given a pre-quiz to assist in understanding the information that is required. Any pre-quizzes will not be graded. After this startup exercise, lecture material will be discussed to address needed information. As material is presented other opportunities may be provided to ascertain missing information and presentation topics may be altered/added.

Absence Policy: Make-up work is in general not possible and effort should be made to attend/view every lecture. The professor should be informed of any problems with attendance at least a week prior to any absence to allow for rescheduling of work for the entire class. In the event that an emergency or sudden sickness occurs, inform the professor as soon as possible. In such cases an oral quiz/exam may be required to make-up a quiz/exam. A physician's note, or a similar, may be required prior to such a make-up.

Undergraduate Grading: Based on a total quiz score, individual quizzes may vary in value. A 4 to 0 grading scale will be used to grade problems where each score means:

- 4:** concepts are understood,
- 3:** concepts are mostly understood,
- 2:** concepts are halfway understood,
- 1:** concepts are mostly not understood, and
- 0:** concepts are not understood.

Scores between two of the above are to be expected. In general, a performance of 3.5 to 4 corresponds to an A, 3 to 3.5⁻ a B and so on. Total quiz score will be scaled to the same 4 to 0 scale. Class participation may be taken into account and could have a positive effect on your final grade. Seldomly grade boundaries are shifted. Any questions concerning a test/quiz score must be brought up within 2 days after the test/quiz is returned. Any graded material not picked up within a week of the end of the term, will be shredded. Any questions concerning final grades should be brought up within one week of grades being posted to Goldmine.

Copyright statement for course materials: All materials used in this course (including but not limited to recordings, assignments, solutions, notes, handouts, quizzes, exams, etc.) are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. You may not further disseminate (i.e., share, send, post, etc.) any class materials/resources outside of this course. Doing so may result in disciplinary action.

Accommodation under the ADA: If you feel you may have a disability that requires accommodation, contact the Center for Accommodations and Support Services at 747-5148, go to room 106E Union, or e-mail cass@utep.edu.

Academic Dishonesty: “Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in 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. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures, and available in the Office of the Dean of Students and the homepage of the Dean of Students at www.utep.edu, may result in sanctions ranging from disciplinary probation, to a failing grade in the work in question, to a failing grade in the course, to suspension or dismissal, among others.” (Quote from the Undergraduate and Graduate Catalog)

Exam/Quiz Etiquette Unless an exception has been approved by the instructor in advance, the following will be enforced during exams/quizzes:

- 1) No caps, hats, or similar can be worn during quizzes/exams.
- 2) Ears must be visible. Generally, no device can be plugged into or on ears.
- 3) Only standard, basic prescription eyeglasses can be worn. No sunglasses.
- 4) Only T-shirts and other standard, simple shirts, and jeans and other simple pants or shorts are allowed. Simple blouses as well as dresses and skirts can be worn. No cargo pants/shorts. No coats, hoodies, or similar can be worn. No heavy clothing layering permitted, but a simple cardigan-type sweater may be worn with approval.
- 5) No book bag may be permitted on (at) the desk during exam/quiz.
- 6) All quizzes/exams are closed book and closed notes.
- 7) No watches, calculators, cell phones, tablets, laptops or other electronics allowed at desk during quiz/exam.
- 8) **Medical equipment may be allowed with instructor permission.**
- 9) Only pencils and an eraser are allowed. Pencils must be standard, hand-sharpened types (Bring several to quiz/exam.). Only small erasers (3" x 1" maximum size) are allowed. No pens or mechanical pencils.
- 10) Water bottles and other drinks are not allowed without instructor permission.
- 11) Bathroom breaks are not allowed. If you need to go to the bathroom during exam/quiz, you must turn in your exam/quiz. A return to continue the test is not allowed. Go to bathroom before exam/quiz.