

**EE 3340 ELECTRONIC II**  
**Fall 2017**

**Instructor:** Dr. John Moya  
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**Course Location and Time:** Psyc 308 3pm – 4:20pm

**Course Description:** Continuation of Electronics I (EE3338). **Analysis and design of discrete electronic devices and linear integrated circuits stressing impedance levels, gains, and frequency responses.** The **use of computer simulations**, Bode plots, and complex plane concepts are stressed. Active filter design, pulse response, relaxation oscillators and stability analysis are covered.

**Prerequisite:** C or better grade in EE 3338 and EE3138

**Textbook:** Microelectronic Circuits 7<sup>th</sup> ed., by Adel Sedra and Kenneth Smith.

**Course Outcomes:**

Students completing EE 3340 will be able to:

1. **Analyze and design differential amplifiers and current sources used in linear integrated circuits.**
2. **Apply the concepts of loading, impedance matching, gain and frequency response in electronic circuit design and analysis.**
3. Perform s-plane and frequency response analysis of electronic circuits using Bode plots (amplitude and phase) representation.
4. **Analyze and design amplifiers and active filters.**
5. Understand feedback theory and apply it to analyze and design electronic oscillators.
6. Analyze and design application circuits using Op-Amps.

**Absence Policy:** Make-up work is in general not possible and effort should be made to attend every class. Thus, 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 administered to make-up a quiz/exam. A physician's note or a similar document may be required prior to such a make-up.

**Course Format:** This course will use a modular, problem-based focus. Students will work in groups. Resources will include the textbook, internet, professor, etc. Lecture material will be provided to address needed information. As material is presented opportunities may be provided to ascertain missing information and presentation topics/assignments may be altered/added. Quizzes/Exams and reports will be used to ascertain the level of understanding.

**Undergraduate Grading:** Based on the scaling of total exam/quiz scores and lab reports.

(**Scaling** essential mean dividing your total score by the total possible score and multiplying by 4. **Some curving may occur, but should not be expected.**) A 4 to 0 grading scale will be used in grading.

**4: concept is understood,**

**3: concept is mostly understood,**

**2: concept is halfway understood,**

**1: concept is mostly not understood, and**

**0: concept is not understood.**

Some scores between two of the above are sometimes given. In general an average performance of 3.5 to 4 will earn an A, 3 to 3.5 a B and so on. Class participation may be taken into account and could have a positive effect on your final grade. Any questions concerning a test/quiz or lab report score must be brought up prior to the class meeting after the test/quiz or lab report is returned. Any materials 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.

**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](mailto: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](http://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)