EENG 3510-001 Electronics I

Instructor: Shuping Wang  
Office: NTDP F130  
Phone: 940-369-8895  
Email: shuping@unt.edu  
Spring 2021  
Time: (TuTh) 4:00pm – 5:20pm  
Meeting Place: Remote  
Office Hours: (TuTh) 2:00pm – 3:30pm

GA: Avinash Gunti  
Email: AvinashGunti@my.unt.edu  
Office hours: By appointment

Course Description

Electronics I. Introduction to contemporary electronic devices, terminal characteristics of active semiconductor devices, and models of the BJT and MOSFET in cutoff and saturation region are introduced. Incremental and DC models of junction diodes, bipolar transistors (BJTs), and metal-oxide semiconductor field effect transistors (MOSFETs) are studied to design single and multistage amplifiers.

Course Requirements

Prerequisites  
EENG 2610 Circuit Analysis.

Required Text  

Attendance  
The class will be conducted via Zoom during the scheduled days and times (i.e. Tuesdays and Thursdays from 4:00pm to 5:20pm). Attendance is mandatory. The lecture will also be recorded and available as well should you, the student, run into a time conflict with another class or scheduled event.

Homework  
- Homework needs to be uploaded to Canvas at the due date/time.  
- Homework turned in late will be penalized 50%. No homework accepted after 24 hours.  
- Students have one week to contest any grade once grade posted.

Exams  
There will be three exams (this includes the final exam), each worth 100 points. Exams will be based on text readings, handouts, class exercises, and class lectures and discussions. Students are responsible for all text material, regardless of whether we review the text material in class or not.
Missed Exams
There are no make-up Tests. If you cannot take the test for any reason, the weight of the test will be put onto the final, so that the final is worth 55% of your grade. Make-up exam accommodations for the Final Exam will only be made if you have a documented university excused absence (refer to UNT Policy 06.039).

Grading Elements and Weights

<table>
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<tr>
<th>Grade Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Test 1:</td>
<td>25%</td>
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<tr>
<td>Test 2:</td>
<td>25%</td>
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<tr>
<td>Final Examination:</td>
<td>30%</td>
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Grade Distribution

<table>
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<tr>
<th>Points</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>90.0% - 100%</td>
<td>A</td>
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<tr>
<td>80.0% - 89.9%</td>
<td>B</td>
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<tr>
<td>70.0% - 79.9%</td>
<td>C</td>
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<tr>
<td>60.0% - 69.9%</td>
<td>D</td>
</tr>
<tr>
<td>59.9% &amp; Below</td>
<td>F</td>
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Student Evaluation of Instruction
SPOT is a requirement for all organized classes at UNT. The survey will be made available at the end of the semester.

Disabilities Accommodation

The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.

Additional Policies and Procedures

Synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.
Tentative Course Outline/Schedule

- Signals and Amplifiers (1/12, 1/14)
- Semiconductors (1/19, 1/21, 1/26)
- Diodes (1/28, 2/2, 2/4)
- **Test 1** (Tuesday, 2/9)
- MOS Field-Effect Transistors (MOSFETs) (2/11, 2/16, 2/18, 2/23)
- Bipolar Junction Transistors (BJTs) (2/25, 3/2, 3/4, 3/9)
- **Test 2** (Tuesday, 3/16)
- **Final Exam** (Thursday, 4/29/2021, 1:30pm to 3:30pm)