

**University of Texas Rio Grande Valley**  
**Department of Electrical Engineering**  
**ELECTRIC CIRCUIT I LABORATORY**

**CMPE 2120/ ELEE 2320 (section 03)**  
**Spring 2017**  
**ENGR 2.242 Time: F 7:50-10:30am**

**Dr. Nazmul Islam**  
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**Office: ENGR 3.277 Office Hours: T/R 11:00-1:00pm**

**TEACHING ASSISTANT:** Christina Navarro (christina.navarro01@utrgv.edu)

**TEXTBOOK AND/OR RESOURCE MATERIAL**

Laboratory manuals for each lab will be provided.  
Read Electrical Safety and Lab Notebook guidelines.

**COURSE DESCRIPTION**

Laboratory experiments in electric and electronic circuits.

**PREPARATION**

Preparation for the lab involves printing the laboratory assignment and reading it before class. It is essential that you read and understand the lab before class in order to have enough time to complete it in the time allotted. The laboratory assignments will be available on the blackboard website.

**LAB STRUCTURE**

Lab assignments will be performed in groups of two students. A lab report is due the class after a lab is completed and must be done individually. In order to receive credit for a lab report, you must be present in the lab and participate in the experiment. Attendance will be taken at the beginning of every class. If you are not present when attendance is taken you will be considered absent. A record will also be kept of all lab reports that are submitted at the beginning of class. It is your responsibility to ensure you have marked as present and that your report was submitted.

**LAB EQUIPMENT**

One member of each group will check out a breadboard from the electrical engineering supply room. You will be responsible for returning the breadboard at the end of the semester. Parts/components will be provided at the beginning of class and should be returned upon completing of the assignment or at the end of class.

**GRADING**

Final Exam: 30% Lab Reports: 60% Attendance: 10%  
ANY AMOUNT of plagiarism will be given a grade of ZERO for all parties involved.

**ABSENCES**

Due to the difficulty in preparing the lab for an individual student, no make-up labs are allowed. Do not turn in a lab report for a lab you were not present for, it will not be graded.

**LATE REPORTS**

Lab reports are due one week from the assigned date. Lab reports must be submitted by the end of the lab session. Late reports will lose 25% of the credit, and will not be accepted after one week from the day of the Lab. If you know you will not attend class it is your responsibility to submit your report before the scheduled class date. If an emergency prevents you from submitting your report on time, it will be accepted if documentation of the emergency is provided (e.g. police report indicating the date and time of a car accident in which you were involved).

## LAB REPORT FORMAT

**Objective** (10%)

Purpose of activity and expected outcomes. (No credit for copying the lab manual objectives).

**Presentation of Experiments** (20%)

Materials and a short summary of the topic under investigation.

**Procedure** (30%)

The steps taken to investigate the topic. (No credit for copying the lab manual procedure).

**Data** (30%)

Collected data, graphs, schematics and calculations.

**Conclusions** (10%)

Analysis of the data/calculations.

## SCHEDULE (Subject to change)

01/20/17	<b>Introduction- Safety and Lab Report</b>
01/27/17	<b>Lab 1</b> Multimeters & Kirchhoff Laws
02/03/17	<b>Lab 2</b> Kirchhoff Laws and Superposition
02/10/17	<b>Lab 3</b> pSpice Simulation
02/17/17	<b>Lab 4</b> Thevenin and Norton Equivalent Circuits
02/24/17	<b>Lab 5</b> Oscilloscope
03/03/17	<b>Lab 6</b> Operational Amplifiers
03/10/17	<b>Lab 7</b> Sinusoidal Signals and Phasors
03/24/17	<b>Lab 8</b> Filters
03/31/17	<b>Lab 9</b> AC Line Voltage and Transformers
04/07/17	<b>Lab 10</b> AC Power and Impedance
04/14/17	<b>Lab 11</b> Complex Power
04/21/17	<b>Lab 12</b> LC Lab and pSpice
04/28/17	<b>Lab 13</b> Final Exam

## **UTRGV Policy Statements**

*The UTRGV disability accommodation, mandatory course evaluation statement and sexual harassment statement are required on all syllabi.* Additional policy statements are optional, such as those covering attendance, academic integrity, and course drop policies.

### **STUDENTS WITH DISABILITIES:**

If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. **Brownsville Campus:** Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at [ability@utrgv.edu](mailto:ability@utrgv.edu). **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at [ability@utrgv.edu](mailto:ability@utrgv.edu).

### **MANDATORY COURSE EVALUATION PERIOD:**

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (<https://my.utrgv.edu/home>); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available:

Apr 12 – May 3 for full spring semester courses

### **ATTENDANCE:**

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

### **SCHOLASTIC INTEGRITY:**

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; 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. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

### **SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:**

In accordance with UT System regulations, your instructor is a "responsible employee" for reporting purposes under Title IX regulations and so must report any instance, occurring during a student's time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at [www.utrgv.edu/equity](http://www.utrgv.edu/equity), including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

### **COURSE DROPS:**

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the "3-peat rule" and the "6-drop" rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.