

**Fall 2019**  
**EE330L – Engineering Electronics Laboratory**  
**Number of units: 1**  
**Course Syllabus**

- 1. Instructor:** John Kennedy  
E101-C  
Ph. 619-594-1053  
Email: kennedy.sdsu@gmail.com  
Office Hours: Tuesday & Wednesday (12:10 - 1:00)
- 2. Prerequisites:** Credit or concurrent registration in Electrical Engineering 330.
- 3. Lab Time & Location:** Sch# 21276 Tuesday: (9:30am – 12:10pm) Rm. E-202F  
Sch# 21277 Wednesday: (9:00am – 11:40pm) Rm. E-202F  
Sch# 21278 Thursday: (1:00pm – 3:40pm) Rm. E-202F  
Sch# 21279 Friday: (9:00am – 11:40pm) Rm. E-202F
- 4. Materials:**
1. *A First Lab in Circuits and Electronics* (Required)  
by Yannis Tsvividis,  
John Wiley & Sons, 2002 ISBN: 0471386952 (Amazon used around \$15)
  2. *EE330L Laboratory Manual* (Required)  
by Andrew Szeto, (Available in the SDSU Bookstore)
  3. Lab Fee: (Required)  
EE330L has a \$30 lab fee to cover the cost of the electronic components  
The fee can be paid at the SDSU cashier's office
  4. USB Thumb drive: (Required)  
A small USB drive will be needed to save oscilloscope data
  5. Basic Hand Tools for Electronics: (Recommended)  
Suggestions of what to purchase will be given in the lab.

## **5. Course Outcomes:**

The objective of this lab is to experimentally study laboratory instruments, diodes, rectifier circuits, filters, transistors, and operational amplifiers.

At the end of this course, students will be able to:

1. Know good lab practices and safety rules
2. Understand basic circuit assembly and debugging techniques
3. Understand the operation and proper usage of measurement instruments (DMM, power supplies, signal generator, and the oscilloscope)
4. Know basic laboratory measurement techniques and proper ground connections
5. Calculate various aspects of DC and AC circuit performance and compare theoretical calculations against measured results.
6. Analyze performance of op amp circuits by taking measurements with standard laboratory equipment.
7. Analyze and verify characteristics of various electronic components (RC circuits, diodes, transistors, thermistors, photoresistors, and op amps)
8. Design and construct a consumer grade triple output DC power supply
9. Write a technical specification for a triple output power supply project
10. Properly record and analyze experimental data
11. Write clear laboratory reports with good documentation

## **6. Grading:**

The grading for the course is as follows:

8 quizzes (worst quiz automatically dropped)	30%
8 lab reports (done with a lab partner)	45%
Power supply project & report (done individually)	10%
Hands-on final exam of lab skills	15%

## **7. Cheating:**

Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it includes any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the University. For more information on the University's policy regarding cheating and plagiarism, refer to the Schedule of Courses ('Legal Notices on Cheating and Plagiarism') or the University Catalog ('Policies and Regulations'). Cheating will result in an automatic F in the course. Suspected cheating will be reported to the Judicial Affairs Officer at the office of Student's Rights and Responsibility for further penalties including academic probation and suspension from SDSU. I take responsibility to prevent cheating seriously and pursue cases of cheating as aggressively as possible with the office of Student's Rights and Responsibility.

## **8. Students with Disabilities:**

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delays in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Disability Services