

E 245 Circuits and Systems

Spring 2023

Dr. Mahmoud Al-Quzwini

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1-732-433-4067

Office; Burchard Building Room 204

Office Hours

Mondays & Wednesdays: 12:00 PM – 2:30 PM (Except the first Wednesday of each month)

Zoom Link ; Join Zoom Meeting

<https://stevens.zoom.us/j/6521752322>

Class Schedule

Section A: Monday and Wednesday 10:00 AM to 10:50 AM

Section B: Monday and Wednesday 11:00 AM to 11:50 AM

Required Textbook

Allan R. Hambley, *Electrical Engineering – Principals and Applications*, Seventh Edition, Pearson, Prentice Hall, 2018

ISBN-13: 978-0-13-448414-3;

ISBN-10: 0-13-448414-2.

Course Website

All lecture notes, homework assignments and solutions, and this course syllabus are/will be available on the Canvas course web site. It is your responsibility to download the required material from the course website. In addition, I will use the Canvas *Announcement* tool to share important announcements regarding this course. Please check your email regularly (before each class) during the semester.

Grading:

- | | |
|----------------------------------|--------------------|
| ▪ Homework: | 10% |
| (Note; late HW are not accepted) | |
| ▪ Quiz One | 16% |
| ▪ Quiz Two | 16% |
| ▪ Quiz Three | (optional/Make-UP) |
| ▪ Comprehensive Final Exam | 25% |
| ▪ Lab | 33% |

All quizzes and exams are closed books and closed notes. On some quizzes or exams, formula sheets will be provided

Important Notes;

1. Your overall grade will be based upon the lecture and lab parts of this course. The lecture part of this course will be two-thirds of your grade and the lab part of this course will be one-third of your grade
2. Lab: Everyone should become familiar with all aspects of each lab experiment. This includes the building of the circuit and the use of all lab equipment. The lab midterm and final exams are individual exams. Thus, everyone must know how to do all aspects of each lab.
3. All questions and/or concerns regarding the lab should first be directed to your lab TA.

Instructor and lab schedule

| | Time | Instructor | UG student | |
|---------------|-----------------------------|-----------------|------------|--|
| Lab section C | Thursday 8:00 AM - 10:50 AM | Andrew D'Angelo | | |
| Lab section A | Thursday 11:00 AM - 1:50 PM | Andrew D'Angelo | | |
| Lab section B | Thursday 2:00 PM - 4:50 PM | Lei Wang | | |
| Office hours | Wednesday 3:00PM - 6:00 PM | Lei Wang | | |

Emails of Lab Instructors

| | |
|-----------------|----------------------|
| Andrew D'Angelo | adangelo@stevens.edu |
| Lei Wang | lwang93@stevens.edu |

4. HomeWorks are graded based upon completion (effort and complete and timely submission) and not on whether the answer is correct or incorrect. Please submit your homework solutions electronically to our Canvas course web site. Instructions for submission of your assignments are posted on the course web site. Late homeworks are not accepted.
5. Grades for the homework assignments, quizzes, and final exam will be posted on the course web site. You can appeal any grade; please contact me and we can review the grading. However – **the request to review the grade must be made one week from the original posting of the grade. No reviews will be scheduled for requests made after one week from the original posting of the grade.**
6. For those with approved exam accommodations, you **must email me at least one week before the exam** to plan and schedule the required accommodations.

7. **Do not make travel plans** for the end of the semester until the final exam schedule is posted. Our final exam may be scheduled as late as Tuesday, May 16th from 6 PM until 9 PM.

8. This is a highly participatory class. Attendance is critical. In addition to your required attendance, we also require your full participation in class and recitation. The use of smartphones (or other handheld devices with networking capability) is not allowed (except in the case of a family or medical emergency). I will be calling on you randomly and my expectation is you will actively participate in-class.

9. Make-UP policy

Students with documented excuses can make-up for their late work as follows:

- HW: No make-up, the lowest two homeworks will be dropped.
- Quizzes: Quiz 3 is a make-up/optional quiz, it can be used to substitute any missing quiz or to improve your grade. The lowest grade amongst the three quizzes will be dropped.
- Lab: If you have an emergency and had to miss a lab, you need to talk with your lab TA, ask him to open the before-lab quiz for you, show up during the lab office hours, ask the lab TA who is available during the office hours for help, implement the experiment, and show him your work. Then your TA will open the after-lab quiz for you.

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10. Students are expected to attend all classes in which they are enrolled. Each faculty member determines their own policy dealing with class attendance. Therefore, if a student misses a class or classes, the student is expected to discuss the matter with the instructor, and it is up to the discretion of the instructor whether to allow a student to make up any missed assignments, exams, or projects. Absences, for whatever reason, do not relieve students of their responsibility for fulfilling the requirements for any course.

If a student knows in advance that they are going to miss a class, the student is advised and is expected to discuss the situation with the appropriate faculty member in advance and in accordance with that faculty member's guidelines for class attendance. If documentation is desired by the faculty member, the student should inquire of the faculty member what would suffice for that purpose (e.g., medical documentation, proof of court appearance, participation in university-sponsored activities etc.) and provide such documentation.

In cases of emergency or an extreme event, the Dean of Students will serve as a resource in case a student is unable to make direct contact with a faculty member. Examples where this might apply include accidents, hospitalizations, death of an immediate family member, or serious and/or debilitating health concerns.

Students with long- or short-term documented disabilities including chronic illness must meet with the Office of Disability Services to seek accommodation. The

Director of Disability Services will communicate directly with faculty regarding any accommodations needed.

ACADEMIC INTEGRITY

Undergraduate Honor System

Enrollment into the undergraduate class of Stevens Institute of Technology signifies a student's commitment to the Honor System. Accordingly, the provisions of the Stevens Honor System apply to all undergraduate students in coursework and Honor Board proceedings. It is the responsibility of each student to become acquainted with and to uphold the ideals set forth in the [Honor System Constitution](#). More information about the Honor System including the constitution, bylaws, investigative procedures, and the penalty matrix can be found online at <http://web.stevens.edu/honor/>

The following pledge shall be written in full and signed by every student on all submitted work (including, but not limited to, homework, projects, lab reports, code, quizzes and exams) that is assigned by the course instructor. No work shall be graded unless the pledge is written in full and signed.

“I pledge my honor that I have abided by the Stevens Honor System.”

Reporting Honor System Violations

Students who believe a violation of the Honor System has been committed should report it within ten business days of the suspected violation. Students have the option to remain anonymous and can report violations online at www.stevens.edu/honor.

INCLUSIVITY

Name and Pronoun Usage

As this course includes group work and in-class discussion, it is vitally important for us to create an educational environment of inclusion and mutual respect. This includes the ability for all students to have their chosen gender pronoun(s) and chosen name affirmed. If the class roster does not align with your name and/or pronouns, please inform the instructor of the necessary changes.

Inclusion Statement

Stevens Institute of Technology believes that diversity and inclusiveness are essential to excellence in academic discourse and innovation. In this class, the perspective of people of all races, ethnicities, gender expressions and gender identities, religions, sexual orientations, disabilities, socioeconomic backgrounds, and nationalities will be respected and viewed as a resource and benefit throughout the semester. Suggestions to further diversify class materials and assignments are encouraged. If any course meetings conflict with your religious events, please do not hesitate to reach out to your instructor to make alternative arrangements.

You are expected to treat your instructor and all other participants in the course with courtesy and respect. Disrespectful conduct and harassing statements will not be tolerated and may result in disciplinary actions.

MENTAL HEALTH RESOURCES

Part of being successful in the classroom involves a focus on your whole self, including your mental health. While you are at Stevens, there are many resources to promote and support mental health. The Office of Counseling and Psychological Services (CAPS) offers free and confidential services to all enrolled students who are struggling to cope with personal issues (e.g., difficulty adjusting to college or trouble managing stress) or psychological difficulties (e.g., anxiety and depression). Appointments can be made by phone (201-216-5177).

EMERGENCY INFORMATION

In the event of an urgent or emergent concern about the safety of yourself or someone else in the Stevens community, please immediately call the Stevens Campus Police at 201-216-5105 or on their emergency line at 201-216-3911. These phone lines are staffed 24/7, year round. For students who do not reside near the campus and require emergency support, please contact your local emergency response providers at 911 or via your local police precinct. Other 24/7 national resources for students dealing with mental health crises include the National Suicide Prevention Lifeline (1-800-273-8255) and the Crisis Text Line (text “Home” to 741-741). If you are concerned about the wellbeing of another Stevens student, and the matter is *not* urgent or time sensitive, please email the CARE Team at care@stevens.edu. A member of the CARE Team will respond to your concern as soon as possible.

Proposed Grading Template

| Letter Grade | Numerical Grade |
|--------------|---------------------|
| A | 93 and above |
| A- | 90 to 92.9 |
| B+ | 87 to 89.9 |
| B | 83 to 86.9 |
| B- | 80 to 82.9 |
| C+ | 77 to 79.9 |
| C | 73 to 76.9 |
| C- | 70 to 72.9 |
| D+ | 67 to 69.9 |
| D | 60 to 66.9 |
| F | Below 60 |

E245 A & B Spring 2023; Tentative course schedule;

(Dates are subject to change , please check the Canvas announcements for exams date changes)

| Month/Date | Topics Covered | Chapter(s) in Text | Deliverable |
|--|---|-----------------------|-------------|
| 1/18, 1/23, 1/25, 1/30, 2/1, 2/6, 2/8 | Course Introduction & Introduction | Chapter 1 | HW1 HW2 |
| 2/13, 2/15, 2/22, 2/27, 3/1, | Resistive Circuits 2/20: President day (no classes) QUIZ ONE* ON MONDAY, February 13th | Chapter 2 | HW3 HW4 |
| 3/6, 3/8 | Inductance and Capacitance 3/13, 3/15 Spring break. | Chapter 3 | |
| 3/20, 3/22, 3/27, 3/29, 4/3, 4/5, 4/10, 4/12 | Transients QUIZ TWO* ON Monday, April 10th | Chapter 4 | HW5 HW6 |
| 4/17, 4/19, 4/24, 4/26, 5/1, 5/3 | Steady-State Sinusoidal Analysis QUIZ THREE* ON Monday, April 24th | Chapter 5 | HW7 HW8 |
| 5/5-5/16 | Final exam period | | |
| Final Exam Period; May 6 th through 18 th | FINAL COMPREHENSIVE EXAM* To Be Scheduled During Final Exam Period | | |

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