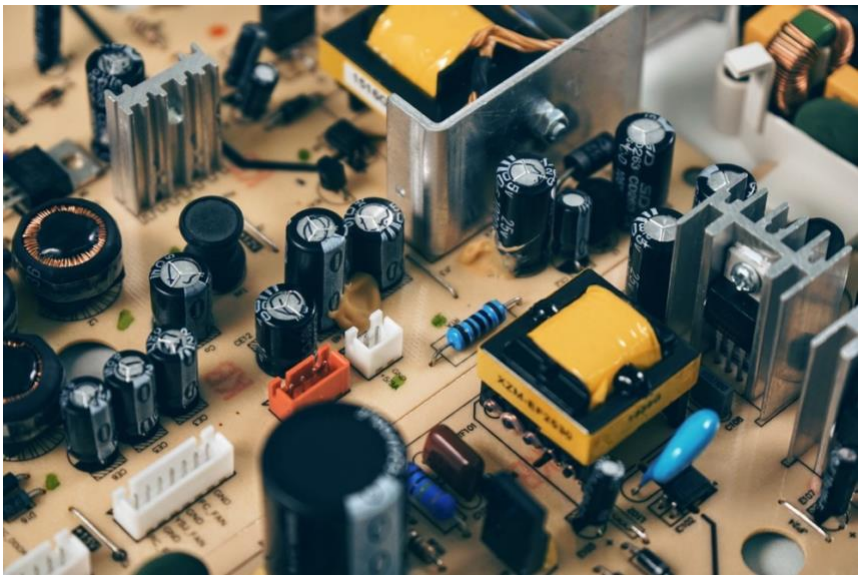
Syllabus for ECE 2040: Circuit Analysis, Section C

Fall 2026



Course Information:
ECE 2040 is an introductory course that covers methods of circuit analysis, the physical laws governing electrical circuits, and the linear circuit elements (i.e., resistors, capacitors, inductors).

Instructors: Dr. Richard Asiamah, asiamah@gatech.edu

Lecture time & place: Tue/Thu 12:30—1:45 PM, Klaus 2443

Drop-in hours: Wed 9 – 10 AM, Virtual (see link on Canvas)
Wed 10:00 – 11 AM or by appointment in Van Leer W324.

Textbook (required): Dorf & Svoboda, Introduction to Electric Circuits (9th edition), John Wiley, 2013. (required)

Online resources: Canvas™ Learning Management System: http://canvas.gatech.edu. Check daily for updates, or set notifications to be pushed to email/messenger.

Grading:

5%	Experiments
10%	Check-in exercises
20%	Homework
20%	First Midterm
20%	Second Midterm
25%	Final Exam

Your final numeric grade, expressed as a percent of the maximum possible numeric grade, will be converted to a final letter grade based on the following table. Cutoff values are the same for all students. The instructor reserves the right to adjust the minimum cutoffs below.

Letter	A	B	C	D	F
Grade	90	80	70	60	0

Homework

Homework will be assigned almost weekly on the course Canvas page. Homework needs to be submitted online via Canvas through Gradescope by 12 noon on the due date. In general, **late homework will not be accepted.**

Check-in exercises

During the first couple of minutes of Thursday class, we will have a short check-in (see course schedule for specific dates). **Students are advised to arrive to class on time** to avoid missing these in-class activities. If you must miss an exercise for reasons beyond your control, please email Dr. Asiamah the day before, asking permission (with a legitimate excuse) to be absent from that day's activity. Once approved, a make-up exercise will be arranged during drop-in hours that week. Make-up exercises must be scheduled before the next week's exercise.

Exams

The tests (two exams and one final exam) will be given (tentatively) on the dates shown in the course schedule. In general, **no make-up exams will be given.** If you must miss an exam for reasons beyond your control, please email Dr. Asiamah immediately (official written documentation is required within 3 days). If you are excused from a test, its weight will be shifted to the next one. If a student misses a final exam and has a documented legitimate reason, a make-up exam can be arranged.

All exams and exercises are closed-book and closed-note. However, a single formula sheet (letter-size, front and back for each exam) will be allowed. Calculators are also allowed. All students should check the Final Exam Schedule against their own class schedule and report any conflicts to me as soon as possible, no later than 2 weeks before the Monday of exam week. Questions regarding a grade for any assignment or exam must be presented to the instructor within 5 days of receiving the grade. No exceptions to this rule will be permitted at any time, for any reason.

Course Policies

Attendance and/or Participation

In-person class attendance is **strongly** encouraged but will not be verified. It is the student's responsibility at all times to stay abreast of course procedural announcements and obtain handouts, etc. All homework, solutions, handouts, practice questions, etc., will be posted on Canvas.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act in accordance with the highest ethical standards. Review Georgia Tech's Honor Code and the Student Code of Conduct. Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, which will investigate the incident and determine the appropriate penalty.

Core IMPACTS

Core IMPACTS is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated career competencies. This resource, developed by the Center for Excellence in Teaching and Learning and Online Education at Georgia State University, includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodations, contact the Office of Disability Services (404-894-2563) as soon as possible to schedule an appointment to discuss your needs and obtain an accommodations letter. Please also email me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgment, and responsibility between faculty members and the student body. The Student-Faculty Expectations outline the basic expectations you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to Georgia Tech's ideals throughout this class.

Campus Resources for Students

Undergraduate Student Academic Success Resources:

Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend

scheduled PLUS (supplemental review) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A comprehensive list of wellness-related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being (https://students.gatech.edu/studentresource-guide).

Course Learning Outcomes

1. Solve small RLC circuits by hand.
2. Use network techniques, such as nodal voltage and mesh current analysis, to write equations for large linear circuits.
3. Apply Thevenin and Norton theorems to analyze and design circuits for maximum power transfer.
4. Apply the concept of linearity and the associated technique of superposition to circuits and networks.
5. Solve circuits containing ideal operational amplifiers.
6. Explain the concept of steady state.
7. Apply phasor analysis to AC circuits in sinusoidal steady state.
8. Analyze three-phase circuits involving both wye- and delta-connected elements.
9. Analyze the frequency response of circuits containing inductors and capacitors.
10. Construct simple Bode plots for first- and second-order circuits.