

ENGR 201 Winter 2021

Electrical Fundamentals I

Instructor:	Karti Mayaram (email: karti@eecs.oregonstate.edu)
Office Hours:	Mon 5pm-6pm, Tue 11am-noon
Web page:	http://www.eecs.oregonstate.edu/~karti/engr201.html http://classes.engr.orst.edu/engr/
TA Office Hours:	See information in Canvas.
Course Objective:	Analysis of linear circuits. Circuit laws and theorems. DC responses of circuits. Operational amplifier characteristics and applications.
Grading:	Mini Quizzes (4) 10%, Midterm Exams (2) 35%, Comprehensive Final Exam 20%, Assignments 15%, Recitation Activities 20%. Your final grade will be based on the overall absolute score. The score ranges for the grades are: A: 90 and above; B: 80-89; C: 70-79; D: 60-69; F: below 60.
Assignments:	The homework assignments are all online problems from the electronic textbook (EText) and are directly accessible from Canvas. Homeworks will be assigned on Monday at 11:59pm and are due the following Tuesday at 11:59pm. There will be no homework assigned in an exam week. No late homeworks will be accepted.
Quizzes/Exams:	The quizzes and exams will be open book/notes. You must work alone and cannot seek help from anyone during the quiz/exam. Quizzes will be in Canvas. For exams, an extra 15 minutes will be provided for you to scan your exam work into a single PDF file and upload it to Canvas. Mini Quizzes: Thu: Jan. 14, Jan. 21, Feb. 11, Mar. 1; 10 minutes for each quiz. Midterm exams: Thu: Jan. 28 and Thu: Feb. 18, 10:00am. Final exam: Wed Mar. 17, 2:00-3:50pm. There will be no makeup exam/quiz unless there is a medical emergency and a doctor's note is provided to the instructor.
Labs/Recitations:	Attendance is required in all weekly laboratory (recitation) sessions. During these sessions additional example problems and problem solving techniques will be demonstrated. A short graded activity will be due at the end of each recitation week.
Cheating Policy:	Cheating is unacceptable. As a punishment, you will receive 0% for the assignment/quiz/exam on which you cheat and most likely for the entire course. You will also be reported to the university..
Required TextBook:	Nilsson and Riedel, <i>Electric Circuits</i> , 11th Edition, (EText from OSU bookstore). You need to use the textbook registration link from Canvas.

Course Outline

(3 weeks)	Basic circuit concepts, circuit laws, and resistive circuits (Chap. 1 - Chap. 3)
(4 weeks)	Analysis methods, circuit theorems (Chap. 4).
(1 week)	Opamps (Chap. 5)
(2 weeks)	Capacitors, Inductors, first-order circuits (Chap. 6 and Chap. 7).

ENGR 201 Winter 2021 Course Calendar

Week	Assignments/Reading
Week 1: 1/04-1/08 Assignment #0 Due 1/07 (Thu)	Assignment #1 Assigned 1/05 Read Textbook: Sections 1.1–1.6
Week 2: 1/11-1/15 Assignment #1 Due 1/12 (Tue) Quiz#1: 1/14	Assignment #2 Assigned 1/12 Read Textbook: Sections 2.1, 2.2, 2.4, 2.5, 3.1, 3.2
Week 3: 1/18-1/22 Assignment #2 Due 1/19 (Tue) Quiz#2: 1/21	Assignment #3 Assigned 1/19 Read Textbook: Sections 3.3–3.5, 3.7, 4.1–4.4
Week 4: 1/25-1/29 Assignment #3 Due 1/26 (Tue) Test#1: 1/28 10am	
Week 5: 2/01-2/05	Assignment #4 Assigned 2/01 Read Textbook: Sections 4.5–4.8, 4.13
Week 6: 2/08-2/12 Assignment #4 Due 2/09 (Tue) Quiz#3: 2/11	Assignment #5 Assigned 2/09 Read Textbook: Sections 4.9–4.12
Week 7: 2/15-2/19 Assignment #5 Due 2/16 (Tue) Test#2: 2/18 10am	
Week 8: 2/22-2/26	Assignment #6 Assigned 2/22 Read Textbook: Sections 5.1–5.6
Week 9: 3/01-3/05 Assignment #6 Due 3/02 (Tue) Quiz#4: 3/01	Assignment #7 Assigned 3/02 Read Textbook: Sections 6.1–6.3, 7.1–7.3, 7.4 (pp. 241-244)
Week 10: 3/08-3/12 Assignment #7 Due 3/11 (Thu)	
Week 11: 3/15-3/19 Final Exam: 03/17 2:00-3:50pm	

Statement Regarding Students with Disabilities:

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu/>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Expectations for Student Conduct:

Student conduct is governed by the university's policies, as explained in the [Office of Student Conduct and Community Standards](#). In an academic community, students and faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity and respect. Disruption of teaching, administration, research, and other institutional activities is prohibited by [Oregon Administrative Rule 576-015-0015 \(1\) and \(2\)](#) and is subject to sanctions under university policies, [Office of Student Conduct and Community Standards](#).

Academic Integrity - Students are expected to comply with all regulations pertaining to academic integrity. At OSU academic integrity is defined as the following: "(a) upholding the standards of the academic discipline of which you are a part, (b) honesty in all academic processes and accomplishments, (c) respect for and appropriate use of the work of others, (d) taking responsibility for your own work, and (e) accountability to protect personal academic work from misuse by others."

Academic Dishonesty - is defined as *an act of deception in which a Student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work or research, either through the Student's own efforts or the efforts of another.*

The following policies apply:

- OSU policy: <http://studentlife.oregonstate.edu/studentconduct/offenses>
- College of Engineering policy: <http://engineering.oregonstate.edu/undergraduate-policy-manual#honesty>