



Course Syllabus: Electronics

McCoy School of Engineering
MENG/EENG 2204 – Required Course
Fall 2026

Contact Information

Instructor: Dr. Yuyao Wang (Lecture) • Dr. Pranaya Pokharel (Lab)
Office: MA 111 (Martin Hall)
Office hours: Monday, Wednesday and Friday 10:00 am - 11:00 am; Wednesday, Thursday 2:30 pm - 3:30 pm
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Lecture: Tuesday and Thursday 9:30 am - 10:50 am, MY 131.

Course Description

Introduction to semiconductor devices, basic amplifiers and feedback, Boolean algebra, basic TTL gates, counters and flip-flops, and shift registers. The course covers resonant circuits and passive filters, diode circuits and applications, DC and AC analysis of BJT and JFET amplifiers, frequency response and Bode plots, operational amplifiers, and active filters. Feedback and oscillator circuits and linear-digital ICs are introduced as time permits.

Prerequisite: EENG 2104 Electric Circuits.

Other requirements: Basic computer skills, MATLAB, NI Multisim, MS Excel, and a hand calculator.

Textbook & Instructional Materials

Required textbooks:

R. Boylestad, *Introductory Circuit Analysis*, Prentice Hall.

R. Boylestad and L. Nashelsky, *Electronic Devices and Circuit Theory*, 11th edition, Prentice Hall.

Supplemental material:

T. Floyd, *Electronics Fundamentals: Circuits, Devices and Applications*, Prentice Hall.

Software and tools: MATLAB, NI Multisim, MS Excel, and a scientific/engineering hand calculator.

Study Hours and Tutoring Assistance

Plan to spend at least 6 hours per week outside of class studying the material and completing homework and lab assignments. Do not wait until the last day to start working on an assignment or prepare for an exam. Utilize the instructor office hours listed above throughout the semester to seek clarification. Additional tutoring is available through the MSU Academic Success Center. Students are encouraged to study in small groups.

Student Handbook

Refer to: [Student Handbook](#)

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

[Office of Student Conduct](#)

Moffett Library

Moffett Library provides resources and services to support student's studies and assignments, including books, peer-reviewed journals, databases, and multimedia materials accessible both on campus and remotely. The library offers media equipment checkout, reservable study rooms, and research assistance from librarians to help students effectively find, evaluate, and use information. Get started on this [Moffett Library webpage](#) to explore these resources and learn how to best utilize the library.

Grading

Final course grade is determined by the weighted percentages shown in Table 1. The letter-grade scale is given in Table 2.

Table 1: Percentage allocated to each assignment

Assignments	Percentage
Midterm Exam 1	15
Midterm Exam 2	15
Final Exam (Comprehensive)	25
Labs	20
Quizzes & Homework	20
Attendance & Class Performance	5
Total	100

Table 2: Total Percentage for final grade.

Grade	Percentage
A	90-100
B	80-89
C	70-79
D	60-69
F	Less than 60

Homework

Homework will be assigned from selected chapters of the textbook. Assignments must be turned in by the end of the due date. Copying from the solution manual or from classmates results in a zero for that assignment. In engineering, neatness is required; work that lacks neatness will be penalized.

Quizzes

Short in-class quizzes will be given periodically to reinforce the material covered in lecture. Quizzes and homework together account for 20% of the final grade.

Exams

Two regular midterm exams and one comprehensive final exam will be given. Each midterm counts for 15% of the final grade; the final exam counts for 25%. All exams are closed-book; a formula sheet is allowed. Each midterm covers the course material developed between two consecutive exams, plus relevant lab material when applicable. The final exam is comprehensive. Exams are timed and must be taken on the scheduled date and time.

Mid-Term Exam

Two midterm exams are given during the semester. Each midterm counts for 15% of the final grade, is closed-book with a formula sheet allowed, and is administered during the regular class meeting.

Final Exam

The final exam is comprehensive and covers all material from the semester. It counts for 25% of the final grade, is closed-book with a formula sheet allowed. The final exam is scheduled for Tuesday, December 8, 2026, from 8:00 a.m. to 10:00 a.m., subject to confirmation by the University Registrar.

Extra Credit

Extra credit opportunities, if offered, will be announced to the class and made available to all students.

Late Work

Late homework may be accepted with a 20% deduction from the earned score.

Make Up Work/Tests

Make-up exams or labs are given only for an emergency supported by documentation or for a documented conflict caused by a scheduled athletic event or conference. Contact the instructor as soon as possible.

Important Dates

- Last day for term schedule changes: See MSU Academic Calendar (Fall 2026) Check date on [Academic Calendar](#).
- Deadline to file for graduation: See MSU Academic Calendar (Fall 2026) Check date on [Academic Calendar](#).

Desire-to-Learn (D2L)

D2L will be used to post homework assignments and grades, as well as to share course announcements and general information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program.

Attendance

Attendance is required for each student. For each unexcused absence, 1 point will be deducted from the Attendance & Class Performance grade. Students arriving more than 30 minutes late are permitted to sit in the class, but one absence will be counted.

Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential by the faculty member. Instructor's records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies.

Online Computer Requirements

This is a face-to-face course. Homework assignments are submitted through D2L. Students are responsible for having reliable access to a computer with internet. Personal computer or connectivity issues will not be considered valid reasons for late submissions; if you experience computer trouble, on-campus

computers are available at Moffett Library and the Academic Success Center. For D2L technical difficulties, contact the MSU student helpdesk.

Recording Classes

Recording classes is generally prohibited without the professor's explicit permission. When permitted, recordings are for personal use only and may not be uploaded, shared, transmitted, or published without the professor's prior consent. Students who need recordings as a disability accommodation must obtain prior approval from Disability Support Services.

Instructor Class Policies

Classroom conduct. Once class starts, the use of cell phones, reading of newspapers, private discussions, unauthorized use of computers, work unrelated to the course, and derogatory remarks about classmates or the instructor are not accepted and may result in dismissal from the class. Each documented violation deducts 1 point from the Attendance & Class Performance grade.

Generative AI policy. Generative AI tools may assist with understanding theoretical concepts, but their outputs should be approached with caution. Do not rely on AI tools for homework solutions or hardware design; AI-generated answers may be incorrect, and students remain fully responsible for the correctness of all submitted work. Submitting AI-generated content as original work is treated as academic dishonesty under the Academic Misconduct Policy.

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational

programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Student Wellness Center, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

Emergency Aid Resources for Basic Needs

Unexpected life circumstances can affect anyone. If you are experiencing challenges meeting basic needs—such as housing, utilities, food, transportation, healthcare, technology, textbooks or other life necessities, resources may be available to help. Visit the [Student Emergency Support and Resources webpage](#) to learn more, and explore emergency support opportunities through MSU and how to access them. For additional information, please contact the Office of Student Affairs: Clark Student Center #108, (940) 397-7500, student.affairs@msutexas.edu.

College Policies

Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

Midwestern State University seeks to provide a safe, healthy, pleasant environment for its faculty, staff, and students. To this end, the use of tobacco products, including smoke and smokeless tobacco, and the advertising, sale, free distribution, and discarding of tobacco products shall be prohibited in all indoor and outdoor facilities and in all university vehicles. The policy extends to faculty, staff, students, vendors, guests, and visitors.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university

campuses, except in locations the University establishes has prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

Active Shooter

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [MSUReady – Active Shooter](#). Students are encouraged to watch the video entitled “Run. Hide. Fight.” which may be electronically accessed via the University police department’s webpage: [“Run. Hide. Fight.”](#)

Grade Appeal Process

Students should first try to resolve grade questions with the instructor. If the issue is not resolved, review the [Grade Appeal Checklist](#) and the [MSU Catalog](#).

***Notice:** Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Course Schedule:

The schedule below is tentative and may be adjusted based on class progress.

Week or Module	Activities/Assignments/Exams	Due Date
Week 1 8/24 to 8/28	Course introduction, syllabus review; circuit review	N/A
Week 2 8/31 to 9/4	Resonant circuits	N/A
Week 3 9/7 to 9/11 (Labor Day 9/7)	Passive filters: low-pass, high-pass, band-pass; cut-off frequency and voltage gain	N/A
Week 4 9/14 to 9/18	Frequency response; introduction to Bode plots	N/A
Week 5 9/21 to 9/25	Diodes: characteristics, DC load line	N/A
Week 6 9/28 to 10/2	Diode applications: rectifiers, clippers, clampers	N/A
Week 7 10/5 to 10/9	Midterm 1	N/A
Week 8 10/12 to 10/16	BJT DC analysis: fixed bias, emitter bias, voltage-divider bias	N/A

Week or Module	Activities/Assignments/Exams	Due Date
Week 9 10/19 to 10/23	BJT AC analysis: small-signal model; CE configuration	N/A
Week 10 10/26 to 10/30	JFET DC analysis	N/A
Week 11 11/2 to 11/6	Midterm 2	N/A
Week 12 11/9 to 11/13	JFET AC analysis	N/A
Week 13 11/16 to 11/20	MOSFET DC and AC analysis	N/A
Week 14 11/23 to 11/27	Thanksgiving break	N/A
Week 15 11/30 to 12/4	Operational amplifier circuits; Final review	N/A
Finals 12/5 to 12/10	Final Exam	Tuesday, Dec. 8, 2026, 8:00 a.m. - 10:00 a.m.