



## EECS 312 Electronic Circuits I

### Instructor Contact Information

---

Carl Leuschen

**Email:** leuschen@ku.edu

**Office**

3014 Eaton Hall

**Office Hours**

11:00-11:50am MWF or by appointment

### Class Time and Location

---

MWF 12:00 PM - 12:50 PM LEA 2112

### Course Hours

---

Credit Hours: 3

A [credit hour](#) is a way to measure the amount of work you're expected to do for a class. It's based on the learning goals of the course and how much time you'll spend on it. During a full length (15-week) semester, you can expect to spend about one hour in class and another two hours on homework or studying each week for each credit hour.

For classes completed in other formats, like an 8-week semester, the time commitment may be different. The exact hours can vary, but you can generally expect to spend a similar amount of time in class and on coursework in total, adjusted for the shorter timeframe.

## Instructional Methods

---

In Person

## Course Description

---

Introduction to diodes, BJTs and MOSFETs, and their use in electronic circuits, especially digital circuits. Prerequisite: Upper-level eligibility. Corequisite: EECS 212.

## Learning Outcomes

---

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

- Understand and identify all technical names, bias modes, device equations, and circuit approximations for diodes.
- Understand and identify all technical aspects of MOSFET transistors, including terminal names, bias modes, and device equations.
- Understand the operation of CMOS digital logic circuits, in order to determine or verify characteristic quantities such as logic levels, noise margins, switching times, and power dissipation.

## Course Materials

---

### Microelectronic Circuits

**Authors:** Adel S. Sedra and Kenneth C. Smith

**Publication Date:** 2015

**Edition:** 7th

## Course Assignments and Requirements

---

<b>Due Date</b>	<b>Name</b>	<b>Type</b>	<b>Points</b>
5/11/26	Assignments and due dates will be posted on the class website.		

## **Student Survey of Teaching**

---

You will have multiple opportunities to provide feedback on your experience in this course. Suggestions and constructive criticism are encouraged throughout the course and may be particularly valuable early in the semester. To that end, I will use mid-semester surveys and/or reflection assignments to gather input on what is working well and what could be improved. You will also be asked to complete an end-of-semester, online Student Survey of Teaching, which could inform modifications to this course (and other courses that I teach) in the future.

## **Grading**

---

Homework 10%

Quizzes 35%

Exams (2) 30%

Final 25%

Scale:

100-93 A

93-90 A-

90-87 B+

87-83 B

83-80 B-

80-77 C+

77-73 C

73-70 C-

70-67 D+

67-63 D

63-60 D-

60-0 F

## **Attendance Policy**

---

Attendance and participation are expected in class – no cell phone usage during lectures, and no third party note taking.

The knowledge and skills you will gain in this course highly depend on your participation in class activities. Because of that, I expect you to attend all class sessions unless you are ill or have a valid reason for missing. If you are unable to attend class, contact me by email in advance of the absence (not afterward).

Also, see University Excused Absences policy (USRR 2.2.1).

## **Academic Integrity**

---

Academic misconduct (cheating, giving help, copying, representing others work as your own ...) will not be tolerated. It will result in a failing grade, be reported to the Department/Dean, and may result in further disciplinary action by the University. For details see the Academic Misconduct section of the Timetable.

## **Student Resources and University Policies**

---

Please visit the Student Resources website ([KU Academic Success](#)) for a list of student resources and university policies.

## **Commercial Note-Taking Policy**

---

Pursuant to the [University of Kansas' Policy on Commercial Note-Taking Ventures](#), commercial note-taking is not permitted in this course. Lecture notes and course materials may be taken for personal use, for the purpose of mastering the course material, and may not be sold to any person or entity in any form. Any student engaged in or contributing to the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with University policy. Please note: note-taking provided by a student volunteer for a student with a disability, as a reasonable accommodation under the ADA, is not the same as commercial note-taking and is not covered under this policy.

## **Accommodation**

---

The Student Access Center (SAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted SAC, please do so as soon as possible. They are located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about their services can be found at [access.ku.edu](http://access.ku.edu). Please contact me privately in regard to your needs in this course.