### Lecture
| 301 VAN | 9:30-10:45AM, Tuesday & Thursday |

### Web page
http://dusty.physics.uiowa.edu/~goree

### Text & Stuff to Print
- recommended: Kaplan & White, *Hands on Electronics*
- on reserve: Simpson, *Intro. Electronics for Scientists*

Print lab manual, lecture notes & HW from course website.

### Prerequisites
- introductory course on electricity and magnetism such as 29:12, 29:18 or 29:28
- math: complex numbers, beginning calculus

### Goal of the course
- To train science students, both undergraduate and graduate, to:
  - build small practical circuits
  - make electronic measurements.
- The laboratory is the focus of the learning experience in this course. The lecture prepares students for the lab.
- This course is not highly theoretical. It has less math and less homework than most 100 level physics courses.

### Multisym & Computer
- Multisym software is available in 201 VAN. It is required for several homework problems. The door is locked at 5 pm. For technical assistance, look for Larry Schroeder in 210 VAN before 5 PM. Printer problems are common; one alternative is pasting screenshots into a word document, saving on a flashdrive & printing elsewhere.

### More
**Departmental Office:** 203 VAN, DEO: Thomas Boggess

**Hours of preparation:** For each semester hour credit in the course, students should expect to spend two hours per week preparing for class sessions.

**The College of Liberal Arts and Sciences** is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall or see the Academic Handbook.

[www.clas.uiowa.edu/students/academic_handbook/index.shtml](http://www.clas.uiowa.edu/students/academic_handbook/index.shtml)

Plagiarism and any other activities when students present work that is not their own are academic fraud. Academic fraud is reported to the departmental DEO and to the Associate Dean for Academic Programs and Services who enforces the appropriate consequences.

[www.clas.uiowa.edu/students/academic_handbook/index.shtml](http://www.clas.uiowa.edu/students/academic_handbook/index.shtml)

Students with a suggestion or complaint should first visit the instructor, then the course supervisor and the departmental DEO. Complaints must be made within six months of the incident.

[www.clas.uiowa.edu/students/academic_handbook/index.shtml](http://www.clas.uiowa.edu/students/academic_handbook/index.shtml)

A student seeking academic accommodations should register with Student Disability Services and meet privately with the course instructor to make particular arrangements. For more information, visit this site: www.uiowa.edu/~sds/

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit www.sexualharassment.uiowa.edu for definitions, assistance, and the full University policy.

In severe weather, the class members should seek shelter in the innermost part of the building, if possible at the lowest level, staying clear of windows and free-standing expanses. The class will continue if possible when the event is over. (Operations Manual 16.14.i.)

---

**Instructor:** John A. Goree

| Office: | 512 Van Allen Hall |
| E-mail: | john-goree@uiowa.edu |
| Phone: | 319-335-1843 |

**Office Hours:**
- 8:00 – 9:00 MWF or by appointment
- If I’m not in my office, look for me in my labs (rooms 555, 518, 501), or in my assistant’s office (room 553)

### What determines your grade (see also other page):
- Homework, 7 sets, 10%
- Lecture attendance & quizzes 5%
- Midterm exam 8%
- Final exam 17%
- Lab 35%
- Project 25%

### Laboratory:
- 561 VAN, beginning the first week, directed by TA
- Lab manual: download from course website
- You must provide a notebook with bound pages
- You will be given a parts kit, value $20. After the course, you may keep most of the parts (except for parts for Lab 6)
- If you are color blind, tell the TA at the first lab

### Quizzes given in lecture:
- 9:30 am sharp, 12X (¼ of lectures), 2 m.c. questions, 2 min.
- To promote attendance, wrong answers receive 1/3 credit

### Exams:
- Closed book
- Lab topics are included.
- Exam topics include: (1) circuits: identify a circuit; draw a circuit; explain a circuit’s operation; choose a circuit to use in a given application; draw waveforms or frequency response curves; calculate: component values, voltage, current, power, gain, attenuation, roll-off frequency, truth-tables (2) measurement methods: explain method; identify method; calculate parameters when given a waveform.
- Midterm questions: 90% conceptual, 10% problem-solving.
- Final exam covers the entire course, and is harder than midterm:
  - 30% conceptual questions
  - 70% problem-solving or circuit design (like HW).

### Project:
- Design, build and measure a circuit of your own.
- There are no lectures, no regular labs during this period
- 10-minute presentation in class on your proposed project.
- You are responsible for finishing the project on time and paying for your supplies.