1. Course grade

| Weighting: | Midterm Exam | 8 % | |
|------------|--------------|------|--|
| | Quizzes | 5% | Two questions: 1 question on recent lecture |
| | | | 1 question on flip video |
| | Final Exam | 17 % | |
| | Homework | 10 % | |
| | Lab Reports | 35 % | (for details, see lab grading policy, next page) |
| | Lab Project | 25 % | (for details, see lab grading policy, next page) |

A rough guide to interpret your exam scores:

Midterm: Average score:

* was typically 60-65% before flipped classroom, pre-2015

* has increased after flipped classroom began in 2015.

Predicted course grade, based on your midterm exam:

80% A-50% C+ < 35% D or F

Final: Average score was typically 55% (before flipped classroom, pre-2015)

"Fixed scale" for course grade

| A+ | 96-100% |
|----|---------|
| A | 90-95 |
| A- | 85-89 |
| B+ | 81-84 |
| В | 77-80 |
| B- | 72-76 |
| C+ | 68-71 |
| C | 63-67 |
| C- | 58-62 |
| D+ | 53-57 |
| D | 48-52 |
| D- | 45-47 |
| F | <45 |

Your letter grade will be determined by your total score in the course and the "fixed scale" shown in the table on the left.

A typical distribution of course grades (before 2015): 20% A, 41% B, 27% C, 12% D and F combined. This is not a grading curve; it is intended only as an illustration. The distribution will vary each year because your grade will be assigned using the "fixed scale" above.

When a student receives a course grade of C or lower, it is usually due to poor attendance at lecture or lab, late or missing lab reports, and missing homework.

Life happens. If you are behind in multiple lab reports, or if starting a project is overwhelming, I will be happy to help you drop. If the deadline in early April has passed, ask me anyway.

2. Lab reports grade

points item

- 5 attendance: points received for showing up *on time* at the beginning of lab period
- 5 turn in a report containing all required sections
- 5 write in complete sentences
- schematics, showing all instruments and labels for pins on IC's
- 10 explanation of procedures used
- results, including the following:
 - units (Hz, mV, etc.) on all data values including graphs & tables
 - sketch or printout of scope display, if used, including labels for V & t scales
 - graphs, if used, that include: smooth theoretical curves, measured values with error bars, axis labels and title
 - error values on analog measurements (where specified)
 with an explanation of where these errors came from propagation of errors for computed quantities

Penalty for late lab reports:

- Hand in your work in your lab session on the week indicated in the schedule.
- A penalty of 5 points per day is applied to all lab reports that are handed in late.

For the course grade, longer labs count more, and shorter labs count less.

3. Project Grade

At the end of the course, you will do a project, which will be a circuit of your own design. You may construct it either on a prototype board (recommended) or hardwired. Your project will be graded as follows:

| grading factor | prototype | hardwired |
|-------------------------|-----------|-----------|
| design | 80 % | 60 % |
| cleverness of idea # | | |
| how well it works | | |
| how ambitious it is * | | |
| schematic diagram | 10 | 10 |
| specifications | 10 | 10 |
| quality of construction | - | 15 |
| safety | - | 5 |

- # See the end of the lab manual for important information regarding:
 - a required *disclosure* of elements of your design that are not your creative idea
 - plagiarism.

^{*} Discuss your plans with Prof. Goree to get an idea of whether your idea is too ambitious or to unambitious. Also see example projects on the course website.