

## Notes on On-Line Homework

A significant part of your final grade is based upon correctly completing the assigned homework. There are 3 flavors of homework: day-to-day lecture, outside topic, and extra credit:

- Day-to-day lecture (39 assignments, 3900 points max): every lecture day for ELE 212 will have associated with it one or more problems of the following flavor:
  - relevant to the current topic
  - continuation of a recent prior topic (for example, until we cover enough in class for an interesting problem or two)

The “window” for doing these homeworks is brief, just under 2 days in most cases – the online tool opens at the end of the lecture in the morning and accepts answers until 5 minutes before the next lecture. If you miss the submission deadline on one or more of these, there is a “late” version available as well; note, however, that the maximum score for a late submission is 50%.

- Outside topic (10 assignments, 1100 points max, all before spring break): these assignments have a longer period in which the online tool is open for submission and covers two situations:
  - some method needed for future work that I assume that you have already seen (for example, solving simultaneous equations in 2 or 3 variables, and manipulating complex numbers)
  - something new that I don’t want to spend class time on (our sole example is Delta-Wye transformations)
- Extra credit: every year a few students ask for extra credit. For ELE 212 there will be two such assignments, both after spring break. One is a more involved problem on phasors and the other is on 2<sup>nd</sup> order responses. Each of these is worth an extra 200 points. Note, however, that your total will not be allowed to exceed 5000 points.

Some comments on the submission itself:

- Almost all problems expect both a numeric part AND units, if you have the wrong units, or forget them entirely, the tool ignores the rest of your answer and gives you a score of zero.
- Units must make sense for electrical quantities such as volts, amps, ohms, watts, joules, henries, and farads; you can also use scientific notation for large and small values such as Megavolts, kilohms, millihenries, microjoules, nanofarads, and picofarads; you can usually abbreviate when this is no confusion, such as M (capital) for mega, k for kilo, m (lower case) for milli,  $\mu$  for micro, n and p; you can also shorten the unit itself to v, a, o, w, j, h, f; case(i.e. upper or lower) is generally ignored (except for m and M) and extra spaces are ignored as well.
- Once in a while the answer format is more restrictive; follow the instructions in the problem itself.
- Later in the semester we will include time functions and will show the necessary format at that time.

Some comments on grading:

- As soon as you hit return or press the enter button the system compares your answer to the database and returns a score with some limited feedback.
- You can try entering answers as many times as you wish, with the system only locking you out if the time period for submission ends or you get the correct answer.
- For your first two tries you can score full points; after that the maximum score shrinks. The sequence is as follow: 100%, 100%, 90%, 80%, 60%, and then stays at 60% forever (even if you try a thousand times). My goal is that you get the answer right to be sure that you understand the process.
- For homework assignments with multiple parts, the full 100 points is apportioned to the different parts as is the feedback.

Some comments on doing the homework:

- Sure, work with your friends, but since you each have a slightly different problem, you will need to work your own numbers.
- Why ask for all this homework? Well, the usual belief is that practice is needed to really get the skills – a second good reason is that the quiz problems are often based on homework problems.

Some additional Q&A:

Question: What do I do if I miss the submission deadline?

Answer: If it's a regular day-to-day lecture assignments (one of the 39) use the late version; there is no late submission for the outside topic or extra credit assignments. The late submission links all appear at the bottom of the ELE 212 webpage and have a due date of midnight of the Friday after classes end. Note, however, that now the maximum score is 50% ,so doing the problem on time can get more points. Furthermore, I will not combine partial scores of the "on-time" and "late" versions of assignments with multiple parts; rather, I will take the larger of the two total scores for the assignment when computing course grades.

Question: What do I do if the page doesn't load properly or just looks weird?

Answer: Send me a screen shot and I'll try to fix it as soon as possible. While I have been using the tool for years, I am constantly adding to it so errors do occasionally occur.

Question: Are the answers in the database correct?

Answer: Yes, pretty much so. If the feedback says that you are wrong, check your work.

Question: Do my homework scores appear in the Brightspace gradebook?

Answer: Not individually as there is no link between the two tools; however, you can always revisit the homework page to see your individual score and I will occasionally upload complied homework scores to Brightspace.