Welcome to ECE 111 - Intro to Circuits and Systems. This is the first in a sequence of courses that will introduce you to the fundamental concepts of the Electrical part of ECE. These concepts and methods need to become second nature to you, much like musicians must learn their scales, and tennis players must learn their forehand and backhand shots. Some people (whom I find very aggravating) can learn these things very quickly. They see them once and remember them forever. Most people, and I include myself in this group, need to see and use a technique several times before it becomes automatic.

The first group is, I believe, very small. The second group is much larger. There is a third group which will, for one reason or another, never get the hang of it. I also believe the third group makes up only a tiny fraction of this class, they have mostly been selected out already.

I expect that you have had Phy 121 already and are taking Phy 122, and that you have had MTH 161+162, and are in MTH 165 (or 163 or have credit for) now. If you are not in those courses, you must get my permission to stay, see me ASAP. We will be using lots of algebra, trigonometry, and eventually complex numbers. ~~Before~~ I will do some reviews of

these as we go, and many reviews are available online, like at the Khan Academy. I will post links as we go, if you find good ones, let me know and I will put them up too. I made a few videos last year for the class that I will also make available, but I am afraid they are pretty boring. If I have a chance I will rework some of those and add more.

Also, you will note that I make pretty extensive notes to myself, and I will scan those and put them on Blackboard as we go, usually on Fridays. If you miss something, or your notes don't make sense, first talk to others in the class then consult

my notes.

Expectations and Grading

We will have Homework, Workshops, Exams, and Labs in this course.

Homework - about 1 a week, no HW in weeks when we have Exams. A few problems, but you will need to do more. If I ask you to do 4 problems in a section, you should do ~~the~~ 8 or 10 others in the same section. HW problems are graded for 2 things: ① the answer and ② appropriate work To get them back quickly we will not have time to write extensive comments or look for partial credit. Solutions will be posted, no HW will be accepted after the solutions go up.

You can search for, and probably will find, solutions to problems in the text online, and you could copy them and turn them in, but that will not really help you on the Exams, when you have to do things yourself. One reason I will give fewer HW problems to hand in is that we will also have

HW will count for 15% of your course grade.

Workshops - one, 2hr. meeting each week. I will expect you to attend, the leaders will not be asked to assess your performance or do anything else except help everyone in the W.S. understand the material.

We will be signing up for them Friday, 8 are available, so you should be able to find one to fit your schedule. These will be looking at problems in more depth and detail than most HW problems, with a chance to try things. Make use of it.

There should be 12 W.S. sessions during the semester, I'll give you 10 points for attending each session, and the WS "grade" counts for 10% of your course grade, so essentially it gives you 1 point for every session you attend. It also means that if you do not attend any WS's you cannot get an A.

Labs will meet about 9 times during the semester, either Thursday or Friday. More later on this part. Lab grade will count 15% of your course grade.

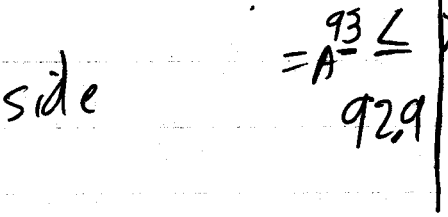
Exams will count for the remaining 60% of your course grade, 15% on Ex I, 15% for Ex II, and 30% for the Final. We will give partial credit on exams, will track down your mistake (if we can identify it) and not penalize you multiple times for one mistake. I will post previous exams as we get closer to Exam dates, so you can see my style. You should not be surprised by an exam.

The text - Thomas, Rosa, + Toussaint, will also be used in 113 next semester, so buying rather than renting may make sense. Look at the costs carefully.

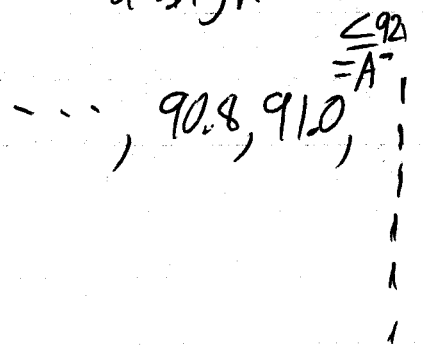
A few words about my philosophy of grading. I do not believe that the people in this class are a randomly selected sample out of a normall-distributed population. There has been selection in several ways to skew this sample. Nor do I believe that my "assessment tools" are perfect and can differentiate two people's performance and knowledge based on less than 1 point in their final grades. So, I will not

I do, however, have enough experience teaching this course that I know what to expect.

draw a boundary between an A and an A⁻ where there are people close by on either side



I would instead look for a gap in grades and assign the break there:



I will only move <u>down</u>, not up. Even if there is a gap between 95.0, 97.9, I will not require a 96 and above to be an A.

If everyone makes A's, great! I will defend myself to the Dept Chair and Dean, and I'll give you guys a party

at the beginning of next semester.

Conversely, I will give everyone an E if they deserve it, and will be able to defend my action.

Questions?

One thing that I have noticed recently is that you guys do not know the Greek letters that are often used in math:

→ α - alpha
→ β - beta
→ γ - gamma
δ - delta
ϵ - epsilon
ζ - zeta
η - eta
→ θ - theta
ι - iota
κ - kappa
→ λ - lambda
→ μ - mu
ν - nu
ξ - xi
o - omicron
→ π - pi
ρ - rho
→ σ - sigma
→ τ - tau
υ - upsilon
→ ϕ - phi
χ - chi
ψ - psi
→ ω - omega
+ Ω

I don't mean you have to memorize the alphabet in order, ~~but~~ I had to look it up, but you should get used to them and learn to write them quickly.