Welcome!

- Please sign in (name + email)!!!
- Fill out the half-sheet survey and return it when you're finished.
IEEE’s Hands on Practical Electronics (HOPE)

Lesson 0: Course Introduction
Course Information

• This is the IEEE Hands on Practical Electronics (HOPE) DeCal!!
• EE98/198
• Day/Time/Place: Wed 8:00-10:00PM, 125 Cory
• Website: ieee.berkeley.edu/hope
  – We'll try to have lectures and labs posted each week
  – May switch to Piazza soon, we'll keep you posted
This Week

• What's this class all about?
  – EE 98/198 vs EE 40/42/100

• What IS electronics?
  – Theory
  – Applications

• Why are YOU taking this class?
  – What would you like to learn about?
  – What would you like to build?
EE can be hard, but have HOPE!

- An audio amplifier in the real world:

http://1.bp.blogspot.com/_Rk1hcnQzcos/TNhMfzP3UnI/AAAAAAAAGlQ/IR_c2GSA6c4/s800/Guitar%2BAmplifier%2BCircuit%2BDiagram%2B100W.gif
...in EE 40:
• ...in EE98/198:
Using electronic components to control the flow of electronics in order to accomplish cool stuff.
For example...
Theory

• “Using electronic components to control the flow of electrons”
  – Resistors
  – Capacitors
  – Inductors
  – Active Components
    • Transistors
Applications

- Literally everything ever.

http://www.thegadgetshop.co.za/pics/user_files/Image/moo_mixer_supreme.jpg
• EVER.
• Well, almost.
First things first

- Gotta learn the **boring** fundamental stuff
- Week 1: Becoming intimately familiar with the lab
- Weeks 2-4: Passive components
- Week 5: Intro to Silicon, Tentative mini project
- Weeks 6-7: “Basic” semiconductor devices
- Weeks 7-9: “Advanced” semiconductor devices
- Weeks 10-end: Final Project
What else?

- Are we missing anything?
- Lots of stuff we have to accomplish, but plenty of room to get creative.
- Bring ideas to class!!!
- Feel free to email any of us with suggestions/questions/comments/concerns/etc.