

E157 Lecture 1 Day Plan

Welcome

Why are you taking this class?

- Cell phones – Antennas don't work without RF theory.
- The internet – fast signals require specially designed wires to carry them. Important in DRAM, fiber optic base planes, etc.

How does this class work

- Videos
- Quizzes – solo + team
- Free time / office hours in lecture b/c videos outside
- Labs –
 - practice questions, theory questions, the lab itself
 - Questions have their own writeup, self-graded
 - Deliverable is a lab notebook
 - Most important goal is model matching simulations
- Design projects
 - Like open ended labs
 - Deliverable is a templated report

Why do we need this class? What physics are different for fast RF signals

- big L impedance and small C impedance → often low power
- the speed of light affects fast-changing signals.

Do first quiz