

## Physics 3330 – Lecture Schedule

- A introduction, motivation, organization
- B transfer functions, impedance of L and C, combining impedances
- C voltage dividers, ac circuit calculations, Thevenin equivalents, Wheatstone bridge
- D lab reports, Bode plots, decibels
- E RC and LCR filters
- F op-amps I: golden rules, gain equations
- G op-amps II: gain-bandwidth product,  $Z_{in}$ ,  $Z_{out}$
- H oscillators
- I LEDs, photodiodes, lock-in amplifiers
- J bipolar transistors I: diodes, emitter follower, biasing
- K bipolar transistors II: common emitter amp., intrinsic  $R_E$ , 2-stage amp.
- L FETs and noise
- M projects, digital I: logic and flip-flops
- N digital II: microcontrollers