

MIT HSSP Summer 2010  
Intro to Circuits & Electronics

Tentative Outline

**Lecture 1 (7/11):**

- Introduction & Basic Circuit Analysis Techniques (KVL, KCL, Node Analysis, Dependent Sources)

**Lecture 2 (7/18):**

- Linearity & Superposition; Thevenin & Norton Equivalence; Nonlinear Elements; Small Signal Analysis

**Lecture 3 (7/25):**

- Digital Abstraction & Boolean Logic; MOSFET Switches

**Lecture 4 (8/1):**

- MOSFET Amplifiers; MOSFET Biasing & Small Signal Model

**Lecture 5 (8/8):**

- MOSFET Biasing & Small Signal Model (cont.); Energy Storage Elements (Capacitors, Inductors)

**Lecture 6 (8/15):**

- 1st Order Transients; RC & RL Networks; Step, Pulse, & Impulse Responses

**Lecture 7 (8/22):**

- 2nd Order Transients; LC & RLC Networks