

**MITx 6.002.2x**  
**Circuits and Electronics 2: Amplification, Speed, and Delay**  
**Syllabus**

Week\* 1

Topics	MOSFET transistors, amplifiers, MOS large signal analysis, MOS small signal analysis
Readings**	7.3-7.7, 8.1-8.2
Graded assignments	HW1, Lab1

Week 2

Topics	Amplifier small signal circuit models, capacitors, first-order RC circuits
Readings	8.2.1-8.2.4, 9.1, 10.1
Graded assignments	HW2, Lab2

Week 3

Topics	Inductors, first-order step response, first-order circuit analysis, impulses, digital circuit speed
Readings	10.2-10.4
Graded assignments	HW3, Lab3

Week 4

Topics	Impulse, step, ramp superposition, digital memory, state, ZIR, ZSR
Readings	9.4, 10.5.3, 10.6, 10.6.3-10.6.4
Graded assignments	HW4, Lab4

Final Exam

\* The term “Week” is used to indicate the length of time allocated for the topics listed in the original 6.002x course. It is also the pace at which the course is taught at MIT. Since this course is self-paced, you may choose to allocate more or less time to study the materials. The suggested workload for this course is approximately 8 hours per “week”.

\*\* Readings refer to sections in the course textbook.