

<http://thayer.dartmouth.edu/~simon/teaching/syllabus.pdf>

Lectures: M 12:30–1:45 (12 slot), Tu Th 1:00–2:00 (12x and 2x slots)
 X-Hour: W 4:15–5:20 (2Ax slot)
 Labs: Tu Th 2:00–5:00
 Office hours: Open Door Policy and by arrangement

Reading from Fortney

Intro Week

June 20 Th 10–11:30 First day of classes, Organizational meeting to determine schedule.
Introduction, basic concepts, resistance.

Week 1

24 M 12:30– *Linear DC circuit theory, Ohm's and Kirchoffs's Laws.* §1.1–1.6
 25 Tu 1–2 *Thevenin's theorem, internal resistance, power transfer.* §1.7–1.8
 2–5 Lab 1: *DC equipment and circuits.*
 26 W 4:15– X-hour: DC Review, only if necessary
 27 Th 1–2 *AC circuit analysis, transients.* §2.1–2.3
 2–5 Lab 2: *AC equipment, transient circuits, time constants.*
 28 F 5 **HW 1 Due**

Week 2

July 1 M 12:30– *AC circuit analysis, impedance.* §2.4–2.7
 2 Tu 1–2 Longer Lecture: *AC circuit analysis, driven.* §2.8–2.9
AC circuit analysis, passive filters, Bode plots. §2.10–2.12, 3.1–3.10
 3–5 Lab 3: *Transfer functions of RC/LR/LRC circuits.*
 3 W 4:15– X-hour: *Transformers* §4.1–4.3
 4 Th **Holiday**
 5 F 5 **HW 2 Due**

Week 3

8 M 12:30– *Introduction to diodes.* §5.1–5.4
 9 Tu 1–2 *Diode applications.* §5.5–5.6
 2–5 Lab 4: *Transformers and transmission lines.*
 10 W 4:15– X-hour: Catch-up/review lecture if necessary.
 11 Th 1–2 *Transistors I, DC biasing.* §6.1–6.2
 2–5 Lab 5: *Diodes.*
 12 F 5 **HW 3 Due**

Week 4

15 M 12:30– *Transistors II, AC analysis.* §6.3–6.5
 16 Tu 1–2 *Transistors III, JFET and applications.* §6.7–6.8
 2–5 Lab 6: *Transistors I.*
 18 Th 1–2 *Op-amps I, ideal op-amp.* §3.12, 7.7–7.9, 8.1–8.3
 19 2–5 Lab 7: *Transistors II.*
 F 5 **HW 4 Due**

Week 5

22 M 12:30– Op-amp II, *realistic op-amp models.* §8.3
 23 Tu 1–2 Op-amp III, *applications, active filters* §
 2–5 Lab 8: *Operational amplifiers I.*
 25 Th 1–2 Digital electronics I, *basic gates* §
 2–5 Lab 9: *Operational amplifiers II.*
 26 F 5 **HW 5 Due**

Week 6					
	29	M	12:30–	Digital II, <i>flip-flops</i> .	§
	30	Tu	1–2	Digital III, <i>counters, shift registers, etc.</i>	§
			2–5	Lab 10: <i>Digital Circuits I</i> .	
Aug	1	Th	1–5	Lab 11: <i>Digital Circuits II</i> and Project Initiation Conferences (individual meetings)	
	2	F	5	HW 6 Due	
Week 7					
	5	M	12:30–	Practical Lecture (Dave Collins): CAD system, layout (location TBD)	
	6	Tu	1–5	Exam	
	8	Th	1–3	Practical Lecture (Dave Collins): CAD system, schematics (location TBD)	
			3–5	Design Review: students sign up for sessions. Complete any unfinished labs	
Week 8					
	12	M	8:00 am	Final Project Designs Due	
	13	Tu	1–3	Practical Lecture (Dave Collins): soldering (location TBD)	
			3–5	Work on projects, catch up on sleep Boards returned to students, students build and	
	15	Th	1–5	test their projects	
Final Week					
	19	M	12:30–	Students build and test their projects	
	20	Tu	1–5	Students demonstrate their projects (show and tell)	
			5–	Cook out in North Pomfret	
	21	W	5	Last day of classes, Final report due	