

Rough lecture outline
 EECS 277C Winter 2008
 Professor Burke

Week	Tuesday	Thursday
1	L1: Intro Length/energy scales, Moore's law	L2: Fabrication and characterization techniques Lithography TEM, SEM, AFM, SPM, tunneling
2	L3: Quantum mechanics, density of states for free electrons (Fermi gas)	L3: QM
3	L3: QM	L4: Tunneling
4	L5: Coulomb blockade	L6: Island
5	L7: Double tunnel jn.	L8: SET
6	Midterm	L9: 2DEG
7	L10: Nanowire (QPC) w/demo	L11: Landauer/Buttiker, QD, QPC
8	L12: Mol Electronics	L13: Nanotubes
9	Presentations	Presentations
10	Presentations	Presentations

HWs:

Pre-midterm:

Hanson 2.1, 2.3, 2.7, 2.10, 4.4, 4.5, 4.6, 7.2, 7.14, 8.1

Post-midterm:

Hanson 10.2, 10.4, 10.13, 10.14