

Physics 121A/ECE 194R
The Practice of Science
 Winter 2008

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Tuesday and Thursday, 5:00 PM – 6:30 PM, 1605 CNSI Building

1.8	Overview: why the very small? Class questionnaire/expectations <i>Prepare graduate student questions</i>	1.10	Approaches to graduate school Interviewing graduate and postdoctoral students
1.15	Choose faculty for interviews and potential second quarter research projects. <i>Prepare list of ten questions</i>	1.17	<i>Research pursued by UCSB faculty</i> <i>Select partner for research project & faculty interviews</i> <i>Review list of ten questions</i> Graduate interviews due.
1.22	Making small things: fabrication techniques and characterization. Clean room tour and nanofabrication facilities	1.24	Seeing small things: imaging techniques and experimental issues (return interviews of grad. students, and discussions)
1.29	Designing experimental apparatus. Tour machine shop, materials facilities, sample laboratories	1.31	Starting a company – what does it take? Faculty interviews due.
2.5	Proposals: Putting Ideas on Paper Budgets & the Costs of Science	2.7	Publication and refereeing – how and why? Literature searches and databases
2.12	Fleshing out Proposals Outlines, Plans, and Uncertainty Bring in results of literature searches.	2.14	Industrial research and development: External speaker Submit one slide on Project for “Once around on 2.19”
2.19	Project status reports and outlines of presentations. “Once around the room” 2min/group	2.21	<i>Example of 10 min conference presentation, “Superconducting qubits”</i> Giving short presentations: preparation and guidelines
2.26	Intellectual property, patents, ideas	2.28	Venture capital opportunities
3.4	Ethics in Science – a case study	3.6	Historical development of S&T
3.11	<i>Workshop day: Submit two slides for project proposal and receive feedback on slides</i>	3.13	Oral Presentations: Once around the room 3min/group