

Nanoscience/Novel Materials Chemistry
(*Special Topics in Organic Chemistry Series*)

Chemistry 241I (Listed as 241D-1)
MWF 1:00–1:50 pm; Young Hall 1044
Instructor: Stuart Cantrill (cantrill@chem.ucla.edu)
TA: Adam Braunschweig

Tentative Syllabus

Week 1 – Intro

Apr 5 Intro to Class
Apr 7 Student Discussion of CNSI Lecture
Apr 9 Intro to Nano

Week 2 – Molecular Machines (Leigh/Feringa/Kelly/Stoddart...)

Apr 12 Lec 1
Apr 14 Student Discussion of CNSI Lecture
Apr 16 Lec 2

Week 3 – Molecular Wires (Lieber/Dai/Alivisatos/Banin...)

Apr 19 Lec 1
Apr 21 Student Discussion of CNSI Lecture
Apr 23 Lec 2

Week 4 – Molecular Electronics (Stoddart/Heath/Dekker/Abruña...)

Apr 26 Lec 1
Apr 28 Student Discussion of CNSI Lecture
Apr 30 Lec 2

Week 5 – Scanning Probe Microscopies (Binnig/Eigler/Mirkin/Weiss...)

May 03 Lec 1
May 05 Student Discussion of CNSI Lecture
May 07 Lec 2

Week 6 – NanoBio and DNA Nanotech (Quate/Seeman/Tirrell/Stupp...)

May 10 Lec 1
May 12 Student Discussion of CNSI Lecture
May 14 Lec 2

Week 7 – Lithography Top-Down meets Bottom-Up (Whitesides/Mirkin/Heath/Zhang...)

May 17 Lec 1
May 19 Student Discussion of CNSI Lecture
May 21 Lec 2

Week 8 – NanoMisc

May 24 Lec 1 – Nanoparticles/Quantum Dots
May 26 Student Discussion of CNSI Lecture
May 28 NanoTrite – the funny (and often pathetic) side of nano

Week 9 – NanoTrip

May 31 Memorial Day Holiday
June 02 Student Discussion of CNSI Lecture
June 04 Trip to NANO at LACMA (and Adam's birthday)

Week 10 – Proposal Presentations

Jun 07 Presentations and Discussion
Jun 09 Presentations and Discussion
Jun 11 Presentations and Discussion