

Fall 2011 Schedule (subject to change)

Week	Date	CHEM 521	Date	BIOC 522
1	Aug. 23	Introduction to class; Review of basic concepts on electromagnetic radiation; Basic theory on interaction between light/mater Instructor: Qin (UPC)	Aug. 25	Optical Absorption; Beers law; Applications to Bio-molecules Instructor: Qin (UPC)
2	Aug. 30	Polarization of light; Circular Dichroism (CD) Spectroscopy; Applications of CD Instructor Instructor: Hegde (HSC)	Sept. 1	Fluorescence spectroscopy and its applications Instructor: Qin (UPC)
3	Sept. 6	Optical Imaging: Theory Instructor: Chow (HSC)	Sept. 8	Optical Imaging: Applications Instructor: Chow (HSC)
4	Sept. 13	Light scattering Instructor: Qin (UPC)	Sept. 15	Introduction to EPR Instructor: Langen (HSC)
5	Sept. 20	Site-directed spin labeling of proteins Instructor: Langen (HSC)	Sept. 22	<i>Laboratory demonstration (UPC): light scattering, fluorescence, AFM, CD</i>
6	Sept. 27	<i>No Class</i>	Sept. 29	Midterm (CHEM521 and BIOC522)
7	Oct. 4	Application of pulsed EPR in proteins and nucleic acids Instructor: Hedge (HSC)	Oct. 6	Introduction to computer modeling of biomolecules Instructor: Haworth (HSC)
8	Oct. 11	Examples of model building using EPR constraints. Instructor: Haworth (HSC)	Oct. 13	Magnetic Resonance Imaging Instructor: Wolf (HSC)
9	Oct. 18	NMR theory Instructor: Ulmer (HSC)	Oct. 20	NMR for bio-molecular structure determination Instructor: Ulmer (HSC)
10	Oct. 25	Basic X-ray theory Instructor: Chen (UPC)	Oct. 27	X-ray for bio-molecular structure determination Instructor: Chen (UPC)

11	Nov. 1	Electron microscopy (theory and applications) Instructor: Schechter (HSC)	Nov. 3	<i>Laboratory demonstration (HSC): EPR/NMR/electron microscopy</i>
12	Nov. 8	Patch clamp; transport across membrane; Protein/small molecule localization Instructor: Chow (HSC)	Nov. 10	<i>No Class</i>
13	Nov. 15	Amperometry or other related topic Instructor: Chow (HSC)	Nov. 17	Genomics and sequencing methods Instructor: Knowles (HSC)
14	Nov. 22	<i>Student Presentations</i>	Nov. 24	<i>Thanksgiving</i>
15	Nov. 29	Proteomics and mass spectrometry Instructor: Susan Lee	Dec. 1	<i>Student Presentations</i>
	Dec. 6	FINAL EXAM; CHEM521 & BIOC522		