Classroom Schedule

Week	Reading	Lecture Topic
1/15	7.1–7.5	geometrical optics, optical diffraction (intro)
1/22	1.1–1.10; 10.1–10.4	x-ray powder diffraction, Raman spectroscopy (intro)
1/29	2.1–2.5, 2.8	NMR (intro), 2D lattices and symmetries
2/5	3.1–3.3	2D plane groups, 3D lattices
2/12	5.1–5.7	planes and directions, diffraction in 1D
2/19	—	diffraction in 1D, diffraction in 2D
2/26	—	image formation, resolution limits, contrast
3/4	6.1–6.4	reciprocal lattice and 3D diffraction
3/11	8.1, 8.5, 8.5	Ewald sphere constructions
3/25	9.1–9.3	scattering, structure factors, broadening
4/1	11.1–11.3	electron diffraction, dynamical effects
4/7	—	dynamical effects, core-level spectroscopies
4/15	—	core-level spectroscopies, vibrational spectroscopies
4/22	—	Raman spectroscopy, NMR spectroscopy
4/29	—	NMR spectroscopy and imaging

comprehensive final exam, Tuesday May 6, 1:30–4:30