

Tentative schedule for Chem 4010/5326 – Fall 2015

Note: All readings are from Simpson 2nd Ed. unless otherwise noted.

| Date | Chapter | Pages | Topics | Problems |
|---------|------------------------|--|--|--|
| Aug 24 | | | Introduction to “organic spectroscopy” Mass spectrometry | handout |
| Aug 31 | | | Infrared spectroscopy | handout |
| Sept 7 | | | No class (Labor day & Thanksgiving) | |
| Sept 14 | 1, 2, 3 | 1–19 22–33 47–52 78–100 | Introduction to NMR (Theory, Instrumentation, Data Processing) | |
| Sept 21 | 4, 5, 9 | 101–111 113–120 199–204 211–213 | ¹ H and ¹³ C NMR: Chemical Shift, Symmetry, Topicity | Simpson: 4.1, 4.2, 4.4, 4.5, 5.1, 5.2, 5.3, 5.4, & handout |
| Sept 28 | 6, 9, 10 (handouts) | 123–145 204–207 223–236 | ¹ H NMR: Coupling | Simpson: 6.3 & handout |
| Oct 5 | | | Exam 1 (IR, MS, 1-D NMR) | |
| Oct 12 | 6, 9 | 145–154 207–211 | 2-D NMR: DEPT, COSY, TOCSY | Simpson: 11.1, 11.2, 11.5, 11.9, 11.10 |
| Oct 19 | 6, 9 | 154–167 213–221 | 2-D NMR: HMQC (HSQC), HMBC, INADEQUATE | Simpson: 11.3, 11.4, 12.3, 12.4, 12.5, 12.6 |
| Oct 26 | 7 (handouts) | 169–183 | Stereochemistry: nOe & NOESY/ROESY, Rychnovsky Acetonides | Simpson: 13.1, 13.2, 13.3, 13.4, 13.5, 16.1, & handout with more information |
| Nov 2 | | | Exam 2 (IR, MS, 1D NMR, 2-D NMR) | |
| Nov 9 | (handouts) | | Stereochemistry: Mosher Analysis & Quantitative NMR | Simpson: 14.3, 14.5, 14.6, 14.7, 16.2, & handout with more information |
| Nov 16 | | | Stereochemistry: UV Methods | |
| Nov 23 | | | Stereochemistry: UV Methods | |
| Nov 30 | | | Other topics? | |

