

Tentative Schedule of Experiments

Text: Wade, *Organic Chemistry*, 9th edition.
Laboratory manual: California State University, Northridge, Department of Chemistry and Biochemistry, *Chemistry 333L Laboratory Manual*.

<u>Dates</u>	<u>Experiment, Pre-Laboratory Preparation</u>
May 31	Introduction Safety Review Check-In CSU Northridge Chemistry 333L Manual, pp. 1–17 UCLA video: Safety
June 1	Melting-Point Analysis Evaluation of Purity by Melting-Point Determination Melting-Point Determination of an Unknown CSU Northridge Chemistry 333L Manual, pp. 18–28 CSU Northridge video: Melting-Point Determination UCLA video: Melting-Point Determination
June 2	Recrystallization of Acetanilide CSU Northridge Chemistry 333L Manual, pp. 29–41 CSU Northridge video: Recrystallization UCLA video: Recrystallization
June 7	Simple Distillation of α -Pinene CSU Northridge Chemistry 333L Manual, pp. 48–67 CSU Northridge video: Simple Distillation UCLA video: Simple Distillation
June 8	Molecular Modeling Conformational Analysis with ChemDraw and Chem3D CSU Northridge Chemistry 333L Manual, pp. 81–86 Wade, Sections 3-13 to 3-15
June 9, 14	Fractional Distillation of Cyclohexane and Toluene With and Without a Vigreux Column CSU Northridge Chemistry 333L Manual, pp. 68–73 Work together in pairs to do both distillations CSU Northridge video: Fractional Distillation UCLA video: Fractional Distillation UCLA video: Gas Chromatography

June 15	Extraction Which Phase is Which? The "Salting-Out" Effect Acid-Base Extraction of Benzil and Benzoic Acid CSU Northridge Chemistry 333L Manual, pp. 87–96, 99–101 CSU Northridge video: Extraction CSU Northridge video: Extraction Demonstrations UCLA video: Extraction
June 16	Thin-Layer Chromatography (TLC) TLC Analysis of <i>o</i>-Hydroxyacetophenone and <i>p</i>-Hydroxyacetophenone TLC Analysis of a Mixture of Common Analgesics CSU Northridge Chemistry 333L Manual, pp. 103–112 CSU Northridge video: Thin-Layer Chromatography UCLA video: Thin-Layer Chromatography
June 21, 22	Separation of Cholesterol and a Cholesteryl Ester by Column Chromatography CSU Northridge Chemistry 333L Manual, pp. 113–124 CSU Northridge video: Column Chromatography: Separation of Cholesterol and a Cholesteryl Ester UCLA video: Column Chromatography
June 23, 28	Acid-Catalyzed Dehydration of 2-Methylcyclohexanol CSU Northridge Chemistry 333L Manual, pp. 125–133, 189–192 Wade, Sections 6-13 to 6-15, 7-8A to 7-8C, 7-10, 7-11, 7-17B, 7-18, 11-7, and 11-10 CSU Northridge video: Acid-Catalyzed Dehydration of 2-Methylcyclohexanol UCLA video: Gas Chromatography
June 29, 30	Stereoselective Reduction of 4-<i>tert</i>-Butylcyclohexanone CSU Northridge Chemistry 333L Manual, pp. 138–142, 183–184, 189–192 Wade, Sections 10-11 and 18-11 CSU Northridge video: Stereoselective Reduction of 4-<i>tert</i>-Butylcyclohexanone UCLA video: Gas Chromatography UCLA video: Infrared Spectroscopy
July 5	Infrared Spectroscopy CSU Northridge Chemistry 333L Manual, pp. 143–149, 183–184 Wade, Sections 12-1 to 12-12 Appendices 2A and 2B CSU Northridge video: Infrared Spectroscopy UCLA video: Infrared Spectroscopy

July 6

Check-Out

July 7

Nuclear Magnetic Resonance (NMR) Spectroscopy

CSU Northridge Chemistry 333L Manual, pp. 150–163, 183–188

Wade, Sections 12-1 to 12-12, 13-1 to 13-13

Appendices 1B, 1C, 2A, and 2B

CSU Northridge video: [NMR Spectroscopy](#)

See the [CSUN Chemistry](#) YouTube channel for the CSU Northridge videos.

See the [Instructional Media Production](#) website for the UCLA organic chemistry videos.