

Schedule of Experiments

Text: Wade, *Organic Chemistry*, 9th edition.
Laboratory manual: California State University, Northridge, Department of Chemistry and Biochemistry, *Chemistry 333L Laboratory Manual*, Fall 2025.

<u>Dates</u>	<u>Experiment, Pre-Laboratory Preparation</u>
Aug. 25–29	Introduction Safety Review Check-In CSU Northridge Chemistry 333L Manual, pp. 1–15 UCLA video: Safety
Sept. 2–8	Melting-Point Analysis Evaluation of Purity by Melting-Point Determination Melting-Point Determination of an Unknown CSU Northridge Chemistry 333L Manual, pp. 16–27 CSU Northridge video: Melting-Point Determination UCLA video: Melting-Point Determination
Sept. 9–15	Recrystallization of Acetanilide CSU Northridge Chemistry 333L Manual, pp. 28–40 CSU Northridge video: Recrystallization UCLA video: Recrystallization
Sept. 16–22	Simple Distillation of α -Pinene CSU Northridge Chemistry 333L Manual, pp. 47–64 CSU Northridge video: Simple Distillation UCLA video: Simple Distillation
Sept. 23–29	Conformational Analysis with Molecular Modeling Software CSU Northridge Chemistry 333L Manual, pp. 73–78 Wade, Sections 3-11 to 3-15.

Sept. 30 – Oct. 13	Fractional Distillation of Cyclohexane and Toluene With and Without a Vigreux Column CSU Northridge Chemistry 333L Manual, pp. 65–72 CSU Northridge video: Fractional Distillation UCLA video: Fractional Distillation UCLA video: Gas Chromatography
Oct. 14–20	Extraction Which Phase is Which? The "Salting-Out" Effect Acid-Base Extraction of Benzil and Benzoic Acid CSU Northridge Chemistry 333L Manual, pp. 79–92 CSU Northridge video: Extraction CSU Northridge video: Extraction Demonstrations UCLA video: Extraction
Oct. 21–27	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. 93–103 CSU Northridge video: Thin-Layer Chromatography UCLA video: Thin-Layer Chromatography
Oct. 28 – Nov. 3	Separation of Cholesterol and a Cholesteryl Ester by Column Chromatography CSU Northridge Chemistry 333L Manual, pp. 104–115 CSU Northridge video: Column Chromatography: Separation of Cholesterol and a Cholesteryl Ester UCLA video: Column Chromatography
Nov. 4–10	Acid-Catalyzed Dehydration of 2-Methylcyclohexanol CSU Northridge Chemistry 333L Manual, pp. 116–120 Wade, Sections 6-13 to 6-15, 7-8A to 7-8C, 7-10, 7-11, 7-17B, 7-18, 11-7, 11-10 CSU Northridge video: Acid-Catalyzed Dehydration of 2-Methylcyclohexanol UCLA video: Gas Chromatography

Nov. 12–18	Stereoselective Reduction of 4-<i>tert</i>-Butylcyclohexanone CSU Northridge Chemistry 333L Manual, pp. 121–126 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
Nov. 19–25	Check-Out
Dec. 1–5	Infrared Spectroscopy CSU Northridge Chemistry 333L Manual, pp. 127–131 Wade, Sections 12-1 to 12-12 Appendices 2A and 2B CSU Northridge video: Infrared Spectroscopy UCLA video: Infrared Spectroscopy
Dec. 8–12	Nuclear Magnetic Resonance (NMR) Spectroscopy CSU Northridge Chemistry 333L Manual, pp. 132–139 Wade, Sections 12-1 to 12-12, 13-1 to 13-13 Appendices 1B, 1C, 2A, and 2B CSU Northridge video: NMR Spectroscopy