

## 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>
Aug. 29 – Sept. 2	Introduction Safety Review Check-In CSU Northridge Chemistry 333L Manual, pp. 1–17 UCLA video: <a href="#">Safety</a>
Sept. 6–12	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: <a href="#">Melting-Point Determination</a> UCLA video: <a href="#">Melting-Point Determination</a>
Sept. 13–19	Recrystallization of Acetanilide CSU Northridge Chemistry 333L Manual, pp. 29–41 CSU Northridge video: <a href="#">Recrystallization</a> UCLA video: <a href="#">Recrystallization</a>
Sept. 20–26	Simple Distillation of $\alpha$ -Pinene CSU Northridge Chemistry 333L Manual, pp. 48–67 CSU Northridge video: <a href="#">Simple Distillation</a> UCLA video: <a href="#">Simple Distillation</a>
Sept. 27 – Oct. 3	Molecular Modeling Conformational Analysis with ChemDraw and Chem3D CSU Northridge Chemistry 333L Manual, pp. 81–86 Wade, Sections 3-13 to 3-15
Oct. 4–10	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: <a href="#">Fractional Distillation</a> UCLA video: <a href="#">Fractional Distillation</a> UCLA video: <a href="#">Gas Chromatography</a>

- Oct. 11–17                    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](#)
- Oct. 18–24                    Thin-Layer Chromatography (TLC)  
    TLC Analysis of *o*-Hydroxyacetophenone and *p*-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](#)
- Oct. 25–31                    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](#)
- Nov. 1–7                      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](#)
- Nov. 14–18                    Stereoselective Reduction of 4-*tert*-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-\*tert\*-Butylcyclohexanone](#)  
UCLA video: [Gas Chromatography](#)  
UCLA video: [Infrared Spectroscopy](#)
- Nov. 28 – Dec. 2              Check-Out
- Dec. 5–9                      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](#)