

## 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>
Jan. 21–23	Check-in Safety Review CSU Northridge Chemistry 333L Manual, pp. 1–17 UCLA video: <a href="#">Safety</a>
Jan. 28–30	Melting Points Evaluation of Purity by Melting-Point Determination Melting-Point Determination of an Unknown CSU Northridge Chemistry 333L Manual, pp. 18–28 UCLA video: <a href="#">Melting-Point Determination</a>
Feb. 4–6	Purification of Acetanilide by Recrystallization CSU Northridge Chemistry 333L Manual, pp. 29–41 UCLA video: <a href="#">Recrystallization</a>
Feb. 11–13	Simple Distillation Isolation of $\alpha$ -Pinene CSU Northridge Chemistry 333L Manual, pp. 48–67 Modification: Skip the Boiling-Point Determination of an Unknown section UCLA video: <a href="#">Simple Distillation</a>
Feb. 18–20	Molecular Modeling Conformational Analysis with ChemDraw and Chem3D CSU Northridge Chemistry 333L Manual, pp. 81–86 Wade, Sections 3-13 to 3-15
Feb. 25–27	Distillation of Two Volatile Compounds With and Without a Vigreux Column CSU Northridge Chemistry 333L Manual, pp. 68–73 Work together in pairs to do both distillations UCLA video: <a href="#">Fractional Distillation</a>
March 3–5	Extraction. Which Phase is Which? The "Salting-Out" Effect Separation via Acid-Base Extraction. CSU Northridge Chemistry 333L Manual, pp. 87–96, 99–101 UCLA video: <a href="#">Extraction</a>

- March 10–12                   Thin-Layer Chromatography (TLC)  
    TLC Analysis of *o*-Hydroxyacetophenone and *p*-Hydroxyacetophenone  
    TLC Analysis of Analgesic Components and an Unknown Mixture  
    CSU Northridge Chemistry 333L Manual, pp. 103–112  
    CSU Northridge video: [Thin-Layer Chromatography](#)  
    UCLA video: [Thin-Layer Chromatography](#)
- March 24–26                   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](#)
- April 7–9                     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](#)
- April 14–16                   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](#)
- April 21–23                   Check-out
- April 28–30                   Infrared Spectroscopy  
    CSU Northridge Chemistry 333L Manual, pp. 143–149, 183–184  
    Wade, Sections 12-1 to 12-12  
        Appendices 2A and 2B  
    UCLA video: [Infrared Spectroscopy](#)
- May 5–7                     Organic Structure Determination by Spectrometric Techniques  
    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

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

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