

**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>
Jan. 30 – Feb. 1	Introduction Safety Review Check-In CSU Northridge Chemistry 333L Manual, pp. 1–17 UCLA video: <a href="#">Safety</a>
Feb. 6–8	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>
Feb. 13–15	Recrystallization of Acetanilide CSU Northridge Chemistry 333L Manual, pp. 29–41 CSU Northridge video: <a href="#">Recrystallization</a> UCLA video: <a href="#">Recrystallization</a>
Feb. 20–22	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>
Feb. 27 – March 7	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>

March 12–14	<p>Extraction</p> <p>Which Phase is Which?</p> <p>The "Salting-Out" Effect</p> <p>Acid-Base Extraction of Benzil and Benzoic Acid</p> <p>CSU Northridge Chemistry 333L Manual, pp. 87–96, 99–101</p> <p>CSU Northridge video: <a href="#">Extraction</a></p> <p>CSU Northridge video: <a href="#">Extraction Demonstrations</a></p> <p>UCLA video: <a href="#">Extraction</a></p>
March 19–21	<p>Spring Break</p>
March 26–28	<p>Thin-Layer Chromatography (TLC)</p> <p>TLC Analysis of <i>o</i>-Hydroxyacetophenone and <i>p</i>-Hydroxyacetophenone</p> <p>TLC Analysis of a Mixture of Common Analgesics</p> <p>CSU Northridge Chemistry 333L Manual, pp. 103–112</p> <p>CSU Northridge video: <a href="#">Thin-Layer Chromatography</a></p> <p>UCLA video: <a href="#">Thin-Layer Chromatography</a></p>
April 2–4	<p>Separation of Cholesterol and a Cholesteryl Ester by Column Chromatography</p> <p>CSU Northridge Chemistry 333L Manual, pp. 113–124</p> <p>CSU Northridge video: <a href="#">Column Chromatography: Separation of Cholesterol and a Cholesteryl Ester</a></p> <p>UCLA video: <a href="#">Column Chromatography</a></p>
April 9–11	<p>Acid-Catalyzed Dehydration of 2-Methylcyclohexanol</p> <p>CSU Northridge Chemistry 333L Manual, pp. 125–133, 189–192</p> <p>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</p> <p>CSU Northridge video: <a href="#">Acid-Catalyzed Dehydration of 2-Methylcyclohexanol</a></p> <p>UCLA video: <a href="#">Gas Chromatography</a></p>
April 16–18	<p>Stereoselective Reduction of 4-<i>tert</i>-Butylcyclohexanone</p> <p>CSU Northridge Chemistry 333L Manual, pp. 138–142, 183–184, 189–192</p> <p>Wade, Sections 10-11 and 18-11</p> <p>CSU Northridge video: <a href="#">Stereoselective Reduction of 4-<i>tert</i>-Butylcyclohexanone</a></p> <p>UCLA video: <a href="#">Gas Chromatography</a></p> <p>UCLA video: <a href="#">Infrared Spectroscopy</a></p>
April 23–25	<p>Check-Out</p>
April 30 – May 2	<p>Nuclear Magnetic Resonance (NMR) Spectroscopy</p> <p>CSU Northridge Chemistry 333L Manual, pp. 150–163, 183–188</p> <p>Wade, Sections 12-1 to 12-12, 13-1 to 13-13</p> <p>Appendices 1B, 1C, 2A, and 2B</p> <p>CSU Northridge video: <a href="#">NMR Spectroscopy</a></p>