

**Schedule of Experiments**

**Text:** Wade, *Organic Chemistry*, 6th edition.  
**Laboratory manual:** California State University, Northridge, Department of Chemistry,  
*Chemistry 333L Laboratory Manual*.

<u>Dates</u>	<u>Experiment, Pre-Laboratory Preparation</u>
May 27	Check-in. Safety Review. CSU Northridge Chemistry 333L Manual, pp. 1–17. LRC Safety DVD.
May 28	Melting Points. Evaluation of Purity by Melting-Point Determination. Melting-Point Determination of an Unknown. CSU Northridge Chemistry 333L Manual, pp. 18–28. LRC Melting-Point Determination DVD.
May 29	Purification of Acetanilide by Recrystallization. CSU Northridge Chemistry 333L Manual, pp. 29–41. LRC Recrystallization DVD.
June 3	Simple Distillation. Isolation of $\alpha$ -Pinene. CSU Northridge Chemistry 333L Manual, pp. 48–67. Modification: Skip the Boiling-Point Determination of an Unknown section. LRC Simple Distillation DVD.
June 4	Fractional Distillation With a Vigreux Distillation Column. CSU Northridge Chemistry 333L Manual, pp. 68–73. Modification: Only do the fractional distillation. LRC Fractional Distillation DVD.
June 5	Molecular Modeling. Conformational Analysis with ChemDraw and Chem3D. CSU Northridge Chemistry 333L Manual, pp. 81–86. Wade, Sections 3-13 to 3-15.

- June 10  
Extraction.  
Which Phase is Which?  
The "Salting-Out" Effect.  
Separation via Acid-Base Extraction.  
CSU Northridge Chemistry 333L Manual, pp. 87–96, 99–101.  
LRC Extraction DVD.
- June 11  
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.  
LRC Thin-Layer Chromatography DVD.
- June 12, 17  
Purification of Cholesterol by Column Chromatography.  
CSU Northridge Chemistry 333L Manual, pp. 113–124.  
Modification: Only collect and characterize cholesterol. Do not isolate the cholesteryl palmitate impurity.  
LRC Column Chromatography DVD.
- June 18, 19  
Acid-Catalyzed Dehydration of 2-Methylcyclohexanol.  
CSU Northridge Chemistry 333L Manual, pp. 125–133, 173–174, 189–192.  
Wade, Sections 6-13 to 6-15, 6-17, 6-18, 7-7A to 7-7C, 7-10, 11-7 and 11-10.  
LRC Gas Chromatography DVD.
- June 24, 25  
Reduction of Cyclohexanone.  
CSU Northridge Chemistry 333L Manual, pp. 134–137, 181–184, 189–192.  
Wade, Sections 10-11 and 18-12.  
LRC Infrared Spectroscopy DVD.
- June 26  
Infrared Spectroscopy.  
CSU Northridge Chemistry 333L Manual, pp. 143–149, 183–184.  
Wade, Sections 12-1 to 12-12.  
Appendices 2A and 2B.  
LRC Infrared Spectroscopy DVD.
- July 1, 2  
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 1A, 1C, 2A and 2B.
- July 3  
Check-out.