

**Schedule of Experiments**

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

<u>Dates</u>	<u>Experiment, Pre-Laboratory Preparation</u>
May 29	Check-in. Safety Review. CSU Northridge Chemistry 333L Manual, pp. 1–17. Oviatt Library Safety DVD.
May 30	Melting Points. Evaluation of Purity by Melting-Point Determination. Melting-Point Determination of an Unknown. CSU Northridge Chemistry 333L Manual, pp. 18–28. Oviatt Library Melting-Point Determination DVD.
May 31	Purification of Acetanilide by Recrystallization. CSU Northridge Chemistry 333L Manual, pp. 29–41. Oviatt Library Recrystallization DVD.
June 5	Simple Distillation. Isolation of $\alpha$ -Pinene. CSU Northridge Chemistry 333L Manual, pp. 48–67. Modification: Skip the Boiling-Point Determination of an Unknown section. Oviatt Library Simple Distillation DVD.
June 6	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. Oviatt Library Fractional Distillation DVD.
June 7	Molecular Modeling. Conformational Analysis with ChemDraw and Chem3D. CSU Northridge Chemistry 333L Manual, pp. 81–86. Wade, Sections 3-13 to 3-15.
June 12	Catch-up.

- June 13                    Extraction.  
                              Which Phase is Which?  
                              The "Salting-Out" Effect.  
                              Separation via Acid-Base Extraction.  
CSU Northridge Chemistry 333L Manual, pp. 87–96, 99–101.  
Oviatt Library Extraction DVD.
- June 14                    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.  
Oviatt Library Thin-Layer Chromatography DVD.
- June 19, 20                Separation of Cholesterol and a Cholesteryl Ester by Column Chromatography.  
CSU Northridge Chemistry 333L Manual, pp. 113–124.  
Oviatt Library Column Chromatography DVD.
- June 21, 26                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.  
Oviatt Library Gas Chromatography DVD.
- June 27, 28                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.  
Oviatt Library Infrared Spectroscopy DVD.
- July 3                      Infrared Spectroscopy.  
CSU Northridge Chemistry 333L Manual, pp. 143–149, 183–184.  
Wade, Sections 12-1 to 12-12.  
                              Appendices 2A and 2B.  
Oviatt Library Infrared Spectroscopy DVD.
- July 5                      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.
- July 10                     Check-out.