Schedule of Experiments

Text: Wade, *Organic Chemistry*, 9th edition.

Laboratory manual: California State University, Northridge, Department of Chemistry and Biochemistry, *Chemistry 333L Laboratory Manual*.

Dates	Experiment, Pre-Laboratory Preparation
Aug. 24–28	Check-in Safety Review CSU Northridge Chemistry 333L Manual, pp. 1–17 UCLA video: Safety
Aug. 31 – Sept. 4	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: Melting-Point Determination UCLA video: Melting-Point Determination
Sept. 8–14	Recrystallization of Acetanilide CSU Northridge Chemistry 333L Manual, pp. 29–41 CSU Northridge video: Recrystallization UCLA video: Recrystallization
Sept. 15–21	Simple Distillation of α-Pinene CSU Northridge Chemistry 333L Manual, pp. 48–67 CSU Northridge video: Simple Distillation UCLA video: Simple Distillation
Sept. 22–28	Molecular Modeling Conformational Analysis with ChemDraw and Chem3D CSU Northridge Chemistry 333L Manual, pp. 81–86 Wade, Sections 3-13 to 3-15

Sept. 29 – Oct. 5	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: Fractional Distillation UCLA video: Fractional Distillation UCLA video: Gas Chromatography
Oct. 6–12	Steam Distillation of Eugenol from Cloves CSU Northridge Chemistry 333L Manual, pp. 74–80 CSU Northridge video: Steam Distillation UCLA video: Gas Chromatography
Oct. 13–19	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 UCLA video: Extraction
Oct. 20–26	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. 27 – Nov. 2	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. 3–9	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

Nov. 12–18	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. 19–25	Infrared Spectroscopy
	CSU Northridge Chemistry 333L Manual, pp. 143–149, 183–184
	Wade, Sections 12-1 to 12-12
	Appendices 2A and 2B
	CSU Northridge video: Infrared Spectroscopy
	UCLA video: Infrared Spectroscopy
Nov. 30 – Dec. 4	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

See the CSUN Chemistry YouTube channel for the CSU Northridge videos.

See the Instructional Media Production website for the UCLA organic chemistry videos.