

ORGANIC CHEMISTRY LABORATORY I
(CHEM 117) 2.0 CREDITS
Summer 2020

Instructor: Dr. Ron Davis, Jr.
voice: 202-687-3566
email: rbd34@georgetown.edu
AIM: OChemNinja
Course Website: <http://cndls.georgetown.edu/blackboard/>

Text: Required: Chem 117 course pack (available at Georgetown University Bookstore)
Recommended: McMurray, Organic Chemistry (Lecture Text, on reserve in 103 Basic Science)

Teaching Assistant

Name: _____ Contact: _____

Course Objectives:

By the end of this course, the student should be able to:

- understand and follow common safety practices when working in a synthetic organic chemistry laboratory
- select, design and execute an appropriate purification strategy for a variety of organic chemical mixtures
- produce proper in-lab documentation of experiments
- draw and use professional quality reaction schemes and mechanisms using electronic applications
- explore the chemical literature using a variety of modern search and retrieval tools
- locate, read, cite and produce professional quality chemical literature
- execute and report on a simple synthetic organic chemistry experiment

Course Policies

Course safety and administrative policies are outlined in separate documents. Please be sure read all of the following documents (available in the 'Course Documents' section of Blackboard and in the pages of this lab companion) to be sure that you fully understand all course policies:

- Safety Contract
- Course Policies
- Online Report Submission Instructions
- Waste Handling
- Report Writing Guidelines.

ORGANIC CHEMISTRY LABORATORY I
(CHEM 117) 2.0 CREDITS
Summer 2020

Semester Schedule
(Tue meetings in classroom, Wed-Fri meetings in lab)

Tues, June 2	-Introductory Lecture -Melting Points and Recrystallization Lecture -Boiling Points and Distillation Lecture	Davis (1 – 4)	None	
Wed, June 3	Check In, Lab Equipment Intro and Safety Tour			None
Thurs, June 4	Recrystallization Experiment		CHEM117-01	
Fri, June 5	Distillation Experiment		CHEM117-02	
Tues, June 9	-Thin Layer Chromatography Lecture -Liquid-Liquid Extraction Lecture	Davis (5 – 6)		
Wed, June 10	TLC experiment		CHEM117-03	Write-up 1&2 due
Thurs, June 11	Acid-Base Extraction Experiment		CHEM117-04	
Fri, June 12	Acid-Base Extraction Experiment (continued)		CHEM117-04	
Tues, June 16	- Column Chromatography Lecture - Chiral Separations and Polarimetry Lecture - Literature and Drawing Lecture	Davis (6 – 9)		
Wed, June 17	Separation of Plant Pigments Experiment	supplemental	CHEM117-05	Write-up 3&4 due
Thurs, June 18	Optical Activity Experiment <i>Intro to Polarimetry</i>	supplemental	CHEM117-06	
Fri, June 19	Literature and Drawing	handout	CHEM117-07	Take Home
Tues, June 23	- SN1 Reaction Lecture - E1 Reaction Lecture	TBA		
Wed, June 24	Substitution Reaction: Solvolysis of <i>t</i> -butyl bromide		CHEM117-08	Write-up 5&6 due
Thurs, June 25	Elimination Reaction: Alkenes from Alcohols		CHEM117-09	Assignment 7 due
Fri, June 29	Make Up Session			
Tues, June 30	Semester Review			Reports 8 & 9 due
Wed, July 1	Lab Exam			
Thurs, July 2	Check Out			

A tentative standard rubric of 90.0-80.0-70.0-60.0 will apply to the grades

+/- cutoffs will be determined at the end of the term, but will not exceed +/- 3.0%

Canvas website Grade Book calculations will be considered official

Rounding of final scores will be done at the discretion of the instructor

Grading Scale:

Online Lab Safety Quiz:	3%
6 Laboratory Worksheets/Write-ups:	48%
Literature and Drawing Assignment	8%
2 Laboratory Reports:	26%
<u>Lab Final Exam:</u>	15%
Total	100%