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

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<tr>
<th>Date</th>
<th>Activity</th>
<th>Instructor</th>
<th>Notes</th>
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| Tues, June 7 | - Introductory Lecture  
- Melting Points and Recrystallization Lecture  
- Boiling Points and Distillation Lecture | Davis (1 – 4) | None                          |
| Wed, June 8 | Check In, Lab Equipment Intro and Safety Tour                             |             | None                          |
| Thurs, June 9 | Recrystallization Experiment                                            |             | CHEM117-01                     |
| Fri, June 10 | Distillation Experiment                                                  |             | CHEM117-02                     |
| Tues, June 14 | - Thin Layer Chromatography Lecture  
- Liquid-Liquid Extraction Lecture | Davis (5 – 6) | Write-up 1&2 due               |
| Wed, June 15 | TLC experiment                                                           |             | CHEM117-03                     |
| Thurs, June 16 | Acid-Base Extraction Experiment                                      |             | CHEM117-04                     |
| Fri, June 17 | Acid-Base Extraction Experiment (continued)                             |             | CHEM117-04                     |
| Tues, June 21 | - Column Chromatography Lecture  
- Chiral Separations and Polarimetry Lecture  
- Literature and Drawing Lecture | Davis (6 – 9) | Write-up 3&4 due               |
| Wed, June 22 | Separation of Plant Pigments Experiment                                  |             | CHEM117-05                     |
| Thurs, June 23 | Optical Activity Experiment  
*Intro to Polarimetry*                                                       |             | CHEM117-06                     |
| Fri, June 24 | Literature and Drawing                                                   |             | CHEM117-07                     |
| Tues, June 28 | - SN1 Reaction Lecture  
- E1 Reaction Lecture                                                      |             | CHEM117-08                     |
| Wed, June 29 | Substitution Reaction: Solvolysis of *t*-butyl bromide                   |             | Assignment 7 due              |
| Thurs, June 30 | Elimination Reaction: Alkenes from Alcohols                             |             | CHEM117-09                     |
| Fri, July 1 | Make Up Session                                                          |             | CHEM117-07                     |
| Tues, July 5 | Lab Exam                                                                 |             | Reports 8 & 9 due              |
| Wed, July 6 | University Closed                                                        |             |                               |
| Thurs, July 7 | Check Out                                                                |             |                               |

## Grading Scale:

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