

SYLLABUS
CHEM 2544 - ORGANIC CHEMISTRY II LABORATORY, Summer 2017
July 3 – August 18, 2017

LABORATORY TIME:

Tuesdays and Thursdays: 08:00 - 10:50 AM SSB 228

INSTRUCTORS:

Dr. Viktor Zhdankin, Office: Chemistry 341, Phone: 726-6902
e-mail: vzhdanki@d.umn.edu

Dr. Peter Grundt, Office: Chemistry 319, Phone: 726-6939
e-mail: pgrundt@d.umn.edu

Office hours: M, W, F 10:10 to 11 am (after lecture) or by appointment.
Note: There may be no office hours after lecture if an exam or a quiz was scheduled on the same day.

TEACHING ASSISTANT:

Zachary Gardner
e-mail: gardn362@d.umn.edu

Office hours: to be announced.

COURSE DESCRIPTION:

CHEM 2544 (Organic Chemistry II Laboratory) is the second semester Organic Chemistry laboratory course. Upon successful completion of this course students will learn how to carry out experiments involving reactions of carbonyl compounds, aromatics, amines, carbohydrates and polymers. Students will also receive basic knowledge and hands-on experience of IR and NMR spectroscopy.

LABORATORY MATERIALS:

Macroscale and Microscale Organic Experiments 5th Edition or 6th Edition by Williamson/ Minard/ Masters
Safety Goggles
Bound Laboratory Book (Composition type)

PREREQUISITES: CHEM 2541 and CHEM 2543

SCHEDULE OF EXPERIMENTS:

07/06/17	Check-in, Safety video, Chapters 1&2 AND IR (Chapter 11)/NMR (Chapter 12)
07/11/17	Oxidation of Cyclohexanol with Hypochlorite (Chapter 22.3) AND Reduction of 2-Methylcyclohexanone with Sodium Borohydride (Chapter 26)
07/13/17	Aldehydes/Ketones (Chapter 36; Experiments 1-3, 6-7)
07/18/17	Carbohydrates (Chapter 63; Experiments 2 and 3)
07/20/17	Esterification (Chapter 40.1) AND Polymers (Chapter 67.1)
07/25/17	Nitration (Chapter 28.1)
07/27/17	Friedel Crafts Alkylation (Chapter 29.1)
08/01/17	Amines (Chapter 43; Experiments 1 and 2) AND Sandmeyer (Chapter 44.1,2,3)
08/03/17	Dyes (Chapter 46) AND Check Out

GRADING:

12 Experiments	120 points (12x10 pts)
8 5-Minute Quizzes	32 points (8x4 pts)
TA Assessment	18 points
Total:	170 points

- The write-up of every experiment constitutes a major portion of the grade for this course. If you happen to adjust yields, melting points etc. to any other values than you observed, you may receive 0 pts for that particular experiment. Your TA will announce in class details concerning the write-up..

- The purpose of the quizzes is to verify that you did prepare for the up-coming experiments of each laboratory session. There is no quiz on 07/06/17. The quizzes will be given in the first 5 minutes of the beginning of each laboratory session. If you are late, you may not be able to take the quiz and a score of 0 pts may be included in the total quiz score.

- TA assessment - General performance in the laboratory. The TA decision to deduct points is final. Points may be deducted for any of the following reasons: a) Your TA considers your behavior in laboratory to be a safety risk for yourself and others. b) The TA has to clean your workspace c) your clothing including your shoes is inappropriate for a laboratory course. Examples of inappropriate clothing

include open-toed shoes such as sandals, flip-flop, shorts, tank-tops and muscle shirts. To provide a minimum protection of your skin on your upper body you are expected to wear a round-neck T-shirt and blue jeans. Long sleeves will even provide better protection. – The TA will give you the opportunity to change your clothing and shoes however you will not be able to make-up any missed time.

- There will be no opportunity to make up a missed Laboratory period. The UMD policy for excused absences applies.

The University of Minnesota Duluth policies related to teaching and learning apply for this course. For details see:
www.d.umn.edu/vcaa/SyllabusStatements.html

Access for Students with Disabilities: It is the policy and practice of the University of Minnesota Duluth to create inclusive learning environments for all students, including students with disabilities. If there are aspects of this course that result in barriers to your inclusion or your ability to meet course requirements please notify the instructor as soon as possible. You are also encouraged to contact the Office of Disability Resources to discuss and arrange reasonable accommodations. Please call 218-726-6130 or visit the DR website at www.d.umn.edu/access for more information.