

Syllabus
Chem 347 - Organic Qualitative Analysis Laboratory

Spring 2018

*This syllabus is a contract for Organic Qualitative Analysis Laboratory. **Please read this document thoroughly** as you will be responsible for the information contained within it.*

Instructor	Jackie Zhu zhuzici@wsu.edu ; Phone: 335-7280; Office: Fulmer 416												
Course Website	All course materials are at Blackboard http://learn.wsu.edu												
Teaching Assistant	Erickson Paragas erickson.paragas@wsu.edu ; Phone: 335-1304; Office: Fulmer 402 Shane Kelly shane.kelly@wsu.edu ; Phone: 335-5585; Office: Troy 206												
Lecture & Lab	Tue & Thur 9:10-13:15; Lecture Fulmer 438, Lab Fulmer 426 & 427												
Prerequisite	Chem 347 requires a grade of C or better in Chem 348. This is a catalog requirement and <u>cannot be waived by the course instructor.</u>												
Course Description	<ul style="list-style-type: none">• The course is an introduction to organic spectroscopy, and includes both lectures and laboratory experience.• The course is structured to give you both theoretical and practical experience in the isolation, purification, and identification of organic compounds.• This will be accomplished through lectures on spectroscopic techniques, followed by practical laboratory experience involving: purification techniques; reactions and their workup; and the separation and identification of unknowns.• This is a serious upper level course for chemistry and biochemistry majors, and it is assumed that you will put forth a significant effort to excel in the course.• Please refer to the course outline for class schedule.												
Texts/Materials	<ul style="list-style-type: none">• Required: Barbakam Lab Notebook (available from the Chemistry Club)• Pavia, Lampman, and Kris, Introduction to Spectroscopy, 4th Ed., Brooks/Cole, 2008. The 3rd Ed. would be acceptable to use.• Lehman, J. W., The Student's Lab Companion: Laboratory Techniques for Organic Chemistry; Standard and Microscale, 2nd Edition, Pearson Prentice Hall, 2008.												
Software	ChemDoodle https://chem.wsu.edu/FulmerIT/chemdoodlelanding/ MNOVA https://chem.wsu.edu/FulmerIT/mnova/												
Instructor Office Hours	Please contact your instructor at zhuzici@wsu.edu . Please provide several choices of times that you can meet.												
Exams/Grading	<table><tr><td>Mid-term examination (in class)</td><td>15%</td></tr><tr><td>Final examination (Wed. May 2, 10-12 Fulmer 438)</td><td>25%</td></tr><tr><td>Quizzes</td><td>10%</td></tr><tr><td>Laboratory reports (including pre-lab)</td><td>40%</td></tr><tr><td>Performance evaluation</td><td>10%</td></tr><tr><td>Total</td><td>100%</td></tr></table> <ul style="list-style-type: none">• Laboratory report break down: Lab1 6%, Lab2 8%, Lab3 8%, Lab4 8%, Lab5 10%.• The performance evaluation will be based upon your laboratory performance.• Grading scale: A, 90% and above; B, 89-80%; C, 79-65%; below 64% not a passing grade.	Mid-term examination (in class)	15%	Final examination (Wed. May 2, 10-12 Fulmer 438)	25%	Quizzes	10%	Laboratory reports (including pre-lab)	40%	Performance evaluation	10%	Total	100%
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Total	100%												
Notebooks & Record Keeping	You must keep all of your laboratory records (data, calculations, observations) in your laboratory notebook and properly labeled paper copies of your characterization data (spectra) in a three-ring binder. Do not keep your data on loose pieces of paper.												

Laboratory

- **Eye Protection.** You MUST wear approved chemical splash goggles at all times when you are in the laboratory. You should invest in some comfortable goggles that you won't feel like taking off every five minutes. It is not a good idea to wear contact lenses in a chemical laboratory even though your vanity makes you want to. If you insist on not using goggles we will dis-enroll you from the course.
- **Gloves.** "Chemically Resistant" disposable gloves are provided to all students. Be aware that the protection offered by gloves is only temporary. If you have a serious spill you should wash the gloves, and then remove and dispose of them properly. Be sure to wash your hands before putting on a fresh pair of gloves. **GLOVES CAN AND DO LEAK!**
According to the new department safety rule, you can't wear gloves outside of the lab, i.e. in the hallway. That means when you are on your way to and from the stock room for a hot plate or other glassware, you have to take them off. Let me or the TA know if you need to carry a chemical outside of the lab.
- **Health Problems.** Please let me know (privately) if you have health issues that might affect you in the lab so that if a problem arises we will have a plan in place.
- **Clothing.** Lab coats are available for purchase through the Chemistry Club. Long pants and long sleeved shirts are recommended for working in the laboratory; please do not come to lab wearing shorts. Even if you are using a lab coat you need to have long pants. Be advised that many synthetic fibers are soluble in organic solvents. Wear natural fibers or at least natural fiber blends. Cotton reacts with acid spills and you might find that holes develop after you wash your cotton lab clothing. Wool is the most resistant.
- **Shoes.** Open toed shoes and sandals (flip-flops) are not suitable for laboratory use. You will be asked to change into appropriate footwear should you show up for lab wearing inappropriate foot protection.
- **Electronic Devices.** There will be no cell phones, radios or recorded music in the lab. If you need to make or receive a call, step out of the lab to do so. Also turn off your cell phones during lectures, and especially during examinations – failure to do so may result in a lower grade.

Academic Integrity

Academic dishonesty, such as cheating, plagiarism, fabrication, and fraud is prohibited. You will get a grade of F, and this action will be reported to the Office of Student Conduct, if you exhibit academic dishonesty. Consult the Office of Student Conduct (<http://www.conduct.wsu.edu>) for additional information.

Students with Disabilities

Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through the Access Center in Washington Bldg, Room 217. Stop by or call 509-335-3417 to make an appointment with a disability specialist. Students requiring extra time on exams due to a documented disability should make prior arrangements with the course instructor.