

Chemistry 3110/3110H*
Spring 2019 MM1

LECTURES: Tu-Th 1:00-1:55 a.m., 362 PSC; Read assignments before lecture
LAB: TuTh 2:00-6:00 p.m., 355 PSC, Note: lab meets after the lecture
TEXTS: 1. GSU Chem 3110 lab manual; supplied during 1st lecture/lab (included in lab fee)
2. Experimental Organic Chemistry, Wilcox and Wilcox, Prentice Hall
(Background text also used in Chem 2100)

PROFESSOR: Al Baumstark, 308 PSC, 404-413-5516 (no messages...email), abaumstark@gsu.edu

OFFICE HOURS: Before/after lab or by appointment (email to set-up time)

GRADING:

Final Exam*	100 points (2/28)
Final Formal Report*	100 points (Due 3-1, 10:00 a.m.) *hard copy only
Preparation, Quizzes and Lab Book*,**	(No makeup quizzes will be given) <u>100 points</u> 300 points - maximum

*Must be submitted to receive a passing grade.

**Notebooks will not be returned and will be discarded after 4 weeks.

Tentative Cutoffs:

A+	95%	B	80%
A	90%	B-	77%
A-	87%	C+	74%
B+	84%	C	70%
		C-	65%

*@Honors Section: Select 7 required syntheses (vs. 6 for non-honors section) and select a difficult series of new compounds to synthesize as the project. It is expected that honors students develop a significant scientific question that can be addressed as optional syntheses that will be an integral part of the final report and special project.

NOTES:

1. Final Exam on Thurs., Feb. 28th
2. Feb 1st is the last day to drop with a W.
3. Department of Chemistry Statement on Student Integrity applies to this course (see below).
4. Attendance to **lecture** and **lab** will be recorded. Absences can result in loss of points and lower grades (Sign-in/out of lab required).
5. Lab notebooks must be recorded in ink at the time the measurements are made and must be bound to be graded! (Note: 2100 notebooks may be used). Lab notebooks will not be returned.
6. Safety glasses* are required and must be worn at all times. Proper attire including proper closed toed shoes must be worn in the lab.
7. Failure to follow safety procedures will result in expulsion from that lab session with no make-up allowed and loss of credit.
8. No chemicals in the sinks; work in hoods; proper disposal/handling procedures.

DEPARTMENT OF CHEMISTRY POLICY STATEMENT REGARDING STUDENT INTEGRITY:

The Department of Chemistry follows the university policy on academic honesty published in the "Faculty Affairs handbook" and the "On Campus: The Undergraduate Co-Curricular Affairs handbook." Any suspected offenses may be referred to the Department Chair for appropriate action.

All tests taken must represent your individual, unaided efforts. To receive or offer information during an examination is cheating. The use of unauthorized supplementary materials during tests is also cheating. All laboratory work performed during this course must reflect your individual effort. Only original data obtained by your own laboratory experimentation are permitted to be used, except when specifically authorized by your laboratory professor. Data from supplementary sources (handbooks, reference literature, etc.) must be clearly referenced (title, author, volume, page(s), etc.). Falsification or destruction of data constitutes cheating. All final reports must be original and written by the student (no copying).

<u>Lecture & Lab Dates</u>	<u>Tentative Lecture Emphasis (labwork)</u>	<u>pp. Wilcox & Wilcox</u>
Jan 15	Safety, Objectives of course (check-in; begin lab = chalcone preparation, pick card with chalcone starting materials)	3-24 (read)
Jan 17	Safety Exam, Isolation, Recrystallization, Purity, Lit. Search (recryst of chalcone)	84-102 and <u>lab manual</u> (read before lecture)
Jan 22	Overview of synthetic routes (Epoxide and/or dibromide prep)	Lab Manual
Jan 24	Overview continued; structure proof (Epoxide and/or dibromide prep)	234-253 (IR)
Jan 29	Structure proof continued (Isoxazole preparation)	263-288; Lab Manual NMR
Jan 31	Methods of UV spectroscopy (Finish preparations and purifications) Last Day to Drop with a "W"	254-262
Feb 5	UV continued; optional procedures (Begin additional procedures)	Lab Manual
Feb 7	Optional procedures (Continue additional preparations)	Lab Manual
Feb 12	¹³ C NMR (Continue additional preparations)	263-288
Feb. 14	¹³ C NMR continued	
Feb 19	Form of Final Report and Final Exam (Additional procedures)	36-39
Feb 21	Form of Final Exam etc continued (Last day to begin a new synthesis)	
Feb 26	Miscellaneous topics (Finish additional procedures, complete lab work, begin clean-up)	
Feb 28	Final Exam (Complete clean-up; proper disposal, check-out)	

POLICY FOR WORKING IN THE LABORATORY:

Students in 3110 lab classes have permission to be in the laboratory other than their regularly scheduled lab period only when the lab is officially open and only to perform IR or Melting Point Determinations. No experiments are to be done outside of the scheduled lab time. Experiments which require over-night heating may be turned off, allowed to cool and then secured [work-up (lab work) will not be allowed].

*The student must bring a pair of safety glasses/goggles to the first lab. These may be purchased at the GSU Bookstore, the Georgia Bookstore, and most hardware stores. Students who are unable or forget to bring their glasses may **buy** a pair from their lab Coordinator by filling out a breakage form in the lab. Students who obtain glasses in this manner will pay for them at the time they check out of the lab. Students will not be allowed in the lab without their glasses/goggles. Students lacking proper shoes or attire may purchase disposable items in the lab or leave lab to change clothes, etc.