

George Mason University; Department of Chemistry and Biochemistry

Organic Chemistry I, Chemistry 313

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Course text (Required): **Organic Chemistry, 12th. Ed. by T.W. Graham Solomons , Craig B. Fryhle and Scott A. Snyder: (ISBN 978-1-118-87576-6) and accompanying Study Guide and Solutions Manual**

or

Organic Chemistry I, Solomons, GMU Custom Edition

Other Required Material: Periodic Table and 4-Scantron sheets (Book store).

Reference: Organic Chemistry as a Second Language, Plastic molecular models (optional)

Class Schedule

<u>Chapter</u>	<u>Subject</u>
1	Introduction, Bonding and molecular structure
1	Bonding and molecular structure
2.1-2.14, 2.17	Functional groups, intermolecular forces
2.1-2.14, 2.17	Functional groups, intermolecular forces
3.1-3.4	Acids and Bases: An introduction to organic reactions and their Mechanisms.
3.5-3.16	Acids and Bases: An introduction to organic reactions and their Mechanisms.
4.1-4.6	Alkanes: nomenclature and conformational analysis of Alkanes and Cycloalkanes.
4.7-4.10	Alkanes: nomenclature and conformational analysis of Alkanes and Cycloalkanes.
TEST-1	
4.11-4.18	Alkanes: nomenclature and conformational analysis of Alkanes and Cycloalkanes.
5.1-5.6	Stereochemistry: Chiral molecules
5.7-5.11	Stereochemistry: Chiral molecules

5.12-5.18	Stereochemistry: Chiral molecules
6.1-6.6	Nucleophilic reactions: Properties and Substitution reactions of alkyl halides
6.7-6.11	Nucleophilic reactions: Properties and Substitution reactions of alkyl halides
6.12-6.14	Nucleophilic reactions: Properties and Substitution reactions of alkyl halides

TEST-2

7.1-7.18	Alkenes and alkynes I: properties and syntheses
7.1-7.18	Alkenes and alkynes I: properties and syntheses
7.1-7.18	Alkenes and alkynes I: properties and syntheses
8.1-8.15	Alkenes and alkynes II: addition reactions
8.16-8.20	Alkenes and alkynes II: addition reactions
8.16-8.20	Alkenes and alkynes II: addition reactions
10.1-10.7	Radical reactions
10.7-10.11	Radical reactions

TEST-3

11.1-11.7	Alcohols and ethers
11.8-11.13	Alcohols and ethers
11.14-11.17	Alcohols and ethers
Review	

Comprehensive Final Exam

Point Distribution

Test 1 100 points (20 %)

Test 2 100 points (20 %)

Test 3 100 points (20 %)

Final 200 points (40 %)

All exams are closed book and closed note. All of the information you need will be given to you in the test booklet

Grading: Grades will be based on your standing in the class. Test average will be anywhere in **C**.

General Remarks: Cell phones, pagers, iPods, communication devices, etc. should be turned off BEFORE class begins. Failure to do so will result in your removal from the classroom.

During ALL EXAMS

- All cell phones and communications devices are to be turned off, properly secured and stored away BEFORE the exams begin. If I find (see or hear) a cell phone on or around a student during an exam, the student will receive an automatic "F" for the course, since this is an honor code violation. The matter will also be referred to the Honor Committee and prosecuted to the fullest extent possible. If you are caught cheating during an exam your exam will be confiscated and you will be asked to leave the room immediately. A grade of "F" will be recorded and the matter referred to the Honor Committee with recommendation of prosecution to the fullest extent.

A valid GMU ID is required for all exams. Other forms of ID will not be accepted.