

## CHM 231

### INTRODUCTION TO ORGANIC CHEMISTRY GRAND VALLEY STATE UNIVERSITY

DISCUSSIONS:	Section B1	T	9:00 AM - 9:50 AM	PAD 209
	Section B2	T	11:00 AM - 11:50 AM	PAD 207
	Section B3	T	4:00 PM - 4:50 PM	PAD 261

LABORATORY: PAD 328

TEXTBOOK: 1) *Fundamentals of Organic Chemistry*, 5<sup>th</sup> edition, John McMurry (**Required**)  
2) *Study Guide and Solutions Manual for Fundamentals of Organic Chemistry*  
3) *Pushing Electrons-A Guide for Students of Organic Chemistry*, 3<sup>rd</sup> edition, by Weeks (**Optional**)

**MOLECULAR MODELS (Required):** Building of molecular models will help in understanding key concepts, such as stereochemistry. You may be allowed to use molecular models during exams.

#### COURSE DESCRIPTION AND OBJECTIVES:

This course is a one-semester survey of Organic Chemistry. In this course we shall look at the various classes of organic compounds, organic reactions and mechanisms. We shall try to understand the relationship between structure and reactivity, with particular emphasis on the importance of organic chemistry in the health sciences and biochemistry. At the end of the semester it is hoped that students will be able to recognize and/or predict chemical behavior of a given organic compound.

#### LECTURE:

The lectures are designed to cover the most important information from each chapter. You are advised to be actively present at all lectures. At least 75% of exam questions will relate directly to material presented in lecture. **The surest way to fail this course is to skip lectures.** Some suggestions for studying for this course include: a) *reading each chapter in the textbook prior to the corresponding set of lectures*, b) *taking good notes*, c) *reading and rereading your notes*, d) *working assigned and unassigned problems*.

#### DISCUSSIONS:

This is your chance to ask questions from the lectures and problem assignments. The goal of the discussion sessions is to guide you through problems, answer questions regarding the lectures, and teach you how to speak the language of organic chemistry.

#### LABORATORY:

Each student is supposed to be registered for one of the 12 laboratory sections. You are expected to attend all laboratory sessions. The laboratory grades will be incorporated into calculations for the course grade.

#### COURSE EXPECTATIONS:

There will be four unit tests during the semester, and a comprehensive final examination at the end of the semester. Dates for all examinations are given on the syllabus (Tentative Schedule).

Thirteen quizzes will be given on a regular basis. I plan to give these quizzes during lectures and discussions. Only the best ten quizzes will be counted; **therefore there is no make-up quiz**

“Group Problem Set” will be distributed the fourth week of lectures and collected the week of November 22-26. The problem sets are designed as collaborative exercises in which students facilitate the learning and comprehension of other students.

“Extra Credit Problems” (10) will be based on exercises using the OWL program. These will be short problems that will be worth 3 points each.

Textbook problems will be assigned for each chapter of the text. These problem assignments will not be collected nor graded but you are strongly advised to work them to perform well in the course.

#### EXAMINATION AND GRADING:

The course grade will be based on your cumulative score on four unit tests, quizzes, group problem set, extra credit problems, lab reports, and the final exam. **There will be no make-up tests, quizzes, or final exams.** If you have to miss a unit test for a valid reason, your final exam will count as 300 points to compensate. Remember that the final exam will be comprehensive.

#### GRADING SCHEME:

Four Unit Tests	4 × 100
Group Problem Set	100
Quizzes	100
Extra Credit Problems	30
Laboratory	70
Final Exam	200
<b>Total Points</b>	<b>870</b>

Your grade will be determined by the following scale. Your final grade may be higher than indicated by the scale. **It will not be lower.**

Total Course Points	Percent	Grade
870-814	100-94%	A
813-770	93-89%	A <sup>-</sup>
769-727	88-84%	B <sup>+</sup>
726-683	83-79%	B
682-649	78-75%	B <sup>-</sup>
648-614	74-71%	C <sup>+</sup>
613-579	70-67%	C
578-544	66-63%	C <sup>-</sup>
543-509	62-59%	D <sup>+</sup>
508-475	58-55%	D
474-0	54-0%	F

#### REGRADING OF EXAMS:

Exams and quizzes will be returned and reviewed during discussion. Check your answers carefully against the answer key. If you find a significant error in grading, submit the exam or quiz for regrading immediately. “Too many points taken off”, or “unfair grading” itself is **not** a criterion for regrading. No exams will be accepted for regrading once they have left the discussion room. **Note that when an exam is submitted for regrading, the entire exam will be regraded.** The points awarded after regrading is final even if it is lower than the original

**grade.** Addition and recording errors are **not** considered regrades but must be presented within 24 hours for correction.

#### GROUP PROBLEM SET:

An important skill cultivated in the Organic Chemistry course is the ability to analyze problems and propose ways to solve problems. There is no unique way suitable for a problem to be answered. Instead a range of possibilities must be considered, and then maybe, one strategy will turn out to be the simplest or best. It is the goal of the “Group Problem Set” to facilitate the assessment of strategies, exchange of ideas and the development of critical analysis.

#### GROUP FORMATION:

Within a couple of weeks of the start of the semester, a sign up sheet will be circulated through the class for the constitution of groups of 3 to 4 individuals. Each group will be assigned a name chosen at random by the instructor. This name will be used by the group to submit all problem sets.

#### HANDOUTS:

All handouts for the course will be available in the back of the lecture hall at the beginning of the lecture. At the end of the lecture, handouts will be available in my office. Copies will also be posted on the web at <http://bb.gvsu.edu>.

#### ACADEMIC DISHONESTY:

Scholastic dishonesty will not be tolerated. **A student caught cheating in an exam will receive a zero in that exam.**

#### ADDITIONAL HELP:

Please take advantage of additional instruction during my office hours. If these times don't work for you, please make an appointment and I will be willing to make time to help you. Other tutoring services are available through student tutors at the Academic Resource Center. Seek help early during the semester if you are having difficulties. **If there is any student in this class who has special needs because of learning or physical disabilities, please contact the Office of Academic Support (OAS) at 331-2490.**

#### STUDY HINTS:

Plan to study at least 10 hours per week in order to master the material. Since succeeding topics build on earlier material, **it is important that you do not fall behind.** Begin from day one. Probably the best way to stay current with the course material is to study as part of a group of 3 or 4. Good problem solving skills are necessary to succeed in Organic Chemistry. Work as many problems as possible at the end of each chapter. Caution: ***the study guide is an aide to your studies, but if used improperly, it can be detrimental!*** Always try to work problems first and then use the study guide to check your answers. If you just look in the study guide to see how a problem was solved, you may quickly conclude, and wrongfully too, that you understood the problem. The danger this might cause is that it will easily lull you into overconfidence.

#### OTHER IMPORTANT DATES OF THE SEMESTER:

- ✍ *Last Day to Add, Register, or Pay*
- ✍ *100% Tuition Refund Deadline*
- ✍ *Labor Day Recess*
- ✍ *75% Tuition Refund Deadline*

- September 3, 5:00 p.m.*
- September 3, 5:00 p.m.*
- September 5-7*
- September 24, 5:00 p.m.*

- ✍ Mid-term Evaluations*
- ✍ Drop Deadline-Grade "W"*
- ✍ Thanksgiving Recess*
- ✍ Classes end*
- ✍ Final Exam*
- ✍ Grades Posted*

*October 11-15*  
*October 22, 5:00 p.m.*  
*November 24-28*  
*December 11*  
*December 16, 2-3:50 p.m.*  
*December 21, Noon*