## Survey of Organic Chemistry (CHE 203) Nutritional Organic Chemistry

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Chemistry & Physical Sciences

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This is a 3 credit course. Prerequisite is one year of General Chemistry.

**Required textbook:** John McMurry and Eric Simanek, <u>Fundamentals of Organic Chemistry</u> 6th edition, Thomson Brooks/Cole, 2007.

<u>Course Description</u>: This course will cover basic principles of organic chemistry including nomenclature, structure, properties, and reactions of the major classes of organic compounds. This course is designed for fields of study that require some basic groundwork in organic chemistry. It is not intended for fields that require an intensive study of organic chemistry, such as chemistry, biochemistry and many areas of biology.

<u>Course Objective:</u> The overall goal of this course is for the student to gain a basic knowledge of organic chemistry concepts and techniques which will be necessary for future science/health related careers.

<u>Course Outcomes</u>: Through problem solving on exams, quizzes, and homework assignments and analysis of laboratory data, students will demonstrate the ability to engage in scientific as well as quantitative/qualitative reasoning and critical analysis They will acquire some basic technical skills necessary for their future careers.

**Grading Policy:** Final grade for the course will be based on the following::

- a) Three one hour in class exams will be given and each will be worth 100 points. Examination dates are listed on the last page of the syllabus.
- b) Six quizzes (15-20 min) will be given throughout the semester. Each will be worth 20 points. The best five of the six quizzes will be counted toward the final grade. The quizzes may or may not be announced. They are designed to encourage the student to keep abreast of the material.
- c) A final comprehensive exam worth 200 points.

At the end of the semester there is a possible total of 600 points. To compute the lecture grade, add points from all exams and the best four quizzes, divide by 600 and multiply by 100. The grade will be some percentage between 0 and 100%.

Final letter grade will be based on the following scale:

93-100 %	A	80-82.9%	B-	67-69.9%	D+
90-92.9%	A-	77-79.9%	C+	60-66.9%	D
87-89.9%	B+	73-76.9%	C	Below 60%	F
83-86.9%	В	70-72.9%	C-		

Note: THERE ARE NO EXTRA CREDIT ASSIGNMENTS! In an effort to treat all students in a fair and equitable manner, I do not allow extra credit work.

<u>Office hours:</u> Regularly scheduled office hours will be posted on my office door. These are times when I will definitely be in my office, but I am happy to help at other times if my schedule permits. Anytime I am in my office, please feel free to stop by! If you want to be sure of my availability outside regular office hours, you can schedule an appointment.

Attendance: Students are expected to attend all lectures. Lectures are a necessary supplement to the textbook. I will not, however, take attendance. But, be aware that past experience has shown that students who come to class do well, while those who do not usually fail. Because exams/quizzes cover material that has been covered in class, it is a <u>really good idea to come to class!</u> In the event of a missed lecture, the student is responsible for the lecture material, any assignments which were given, announcements or any other information that was provided in class.

Students are required to attend class on exam days. Make-up exams will not be given without a valid excuse. Validity of the excuse will be up to the discretion of the instructor. Be forewarned; you will need to have a very good reason for missing an exam! I am not trying to be harsh. I am only trying to treat all students in a fair and equitable manner. If the student is aware of some responsibility which will interfere with an exam date, it must be discussed with the instructor in advance. If an exam is missed without advance notice due to illness or emergency, a valid written excuse will be required from the doctor/school nurse in the case of illness or from the Dean of Students'Office in the case of a family emergency. If a student does not have a valid excuse for missing an exam, the student will receive a zero for the missed exam.

Assignments: Students are expected to do assigned problems at the end of each chapter. I will suggest problems which the student should definitely try to do, but I strongly encourage you to do more than the suggested problems. It is essential for learning the material and performing well in the course. Though these homework problems will not be graded, the students understanding of the material and ability to do well in the course is dependent on completion of these assignments. I am relying on the student to be responsible enough to do homework without being forced to do so. It is imperative for a clear understanding of the material and for learning to apply what was learned.

Honor Philosophy: The Cedar Crest College Honor Philosophy states that students should uphold community standards for academic and social behavior in order to preserve a learning environment dedicated to personal and academic excellence. Upholding community standards is a matter of personal integrity and honor. Individuals who accept the honor or membership in the Cedar Crest College community of scholars pledge to accept responsibility for their actions in all academic and social situations and for the effect their actions may have on other members of the College community

<u>Community Standards for Academic Conduct:</u> Academic integrity and ethics remain steadfast, withstanding technological change. Cedar Crest College academic standards therefore apply to all academic work, including, but not limited to, handwritten or computer-generated documents, video or audio recordings, and telecommunications.

As a student at Cedar Crest College, each student shall:

- Only submit work which is his/her own.
- Adhere to the rules of acknowledging outside sources, as defined by the instructor, never plagiarizing

or misrepresenting intellectual property.

- Neither seek nor receive aid from another student, converse with one another when inappropriate, nor use materials not authorized by the instructor.
- Follow the instructions of the professor in any academic situation or environment, including taking of examinations, laboratory procedures, the preparation of papers, properly and respectfully using College facilities and resources, including library and computing resources to ensure that these resources may be effectively shared by all members of the College community.
- Abide by the Cedar Crest Computer Use Policy.
- If a student perceives a violation of the Academic Standards, he/she will go to their instructor.
- If you are unable to resolve the problem with the instructor, you should go to the chair of the department. If you need further assistance after consultation with the instructor and the chair, you should see the Provost.

Academic dishonesty is a serious offense and a violation of the Cedar Crest Honor Code philospophy. The response to academic dishonesty rests with the instructor. Penalties for academic dishonesty can range from a request to redo an assignment, the assignment of an "F" for the assignment/exam, the assignment of a "F" for the course, to suspension or expulsion. The instructor is entitled to take into account the students degree of academic experience and any prior instances of academic dishonesty in the student's time at the college, in determining the penalty for the offense.

<u>Classroom Protocol</u>: Appropriate classroom behavior is defined and guided by complete protection for the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations and any other behaviors that might disrupt instruction and/or compromise students' access to the Cedar Crest College education. The instructor may request that a disruptive student leave class. Repeated disruptions can lead to class expulsion.

<u>Disabilities:</u> Students with documented disabilities who may need academic accommodations should discuss these needs with their professor during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the Advising Center.

Note to students: Organic Chemistry is a very fast paced course and as such requires a serious commitment on the part of the student. It is a course that builds on itself and as such one cannot fall behind. If you get behind at the beginning, you will get lost because new topics grow out of previously covered topics. Be sure to come to class and come to class thinking. Seek to understand the material. Don't just memorize what you don't understand. This requires interactive studying. When you read text or notes, do so with pen in hand. Make notes of your own/discuss things with friends or with me. Most importantly - WORK PROBLEMS!!!! This is where you can really get involved in the subject. This is the most important aspect of learning organic chemistry. When you work the problems, you may get stuck and have to look at the solutions manual. This is OK, BUT, then you need to try the same problem at a later date without resorting to this crutch. This is a very common mistake students make. Remember, you do not have your book or solutions manual when taking an exam. Eventually, try to solve problems under "exam" conditions (no book/notes and limited time). If you are honest with yourself, this will be a good indicator of how well you know the material and will perform on the real exam. IN ADDITION, DO NOT LOOK AT A PROBLEM AND JUST DO IT IN YOUR HEAD. This will be your downfall if you do. Exams test what is written on paper, not what is in your head.

I will do all I can to help you, but I can't do it for you. It requires a serious effort on your part.

## $\frac{\textbf{TENTATIVE LIST OF TOPICS FOR}}{\textbf{LECTURE}}$

CHAPTER	TOPIC	EXAM
1	Structure and Bonding: Acids and Bases	
2	The Nature of Organic Molecules	
3	The Nature of Organic Reactions: Alkenes	
4	Alkenes and Alkynes	
5	Reactions of alkenes	
Sept 27		Examination #1- Chapters 1-5
6	Stereochemistry	
7	Alkyl Halides	
8	Alcohols, Phenols and Ethers	
9	Aldehydes and Ketones: Nucleophilic Addition Reactions	
Oct 30		Examination #2- Chapters 6-9
10	Carboxylic Acids and Derivatives	
11	Carbonyl Alpha – Substitution Reactions and Condensation Reactions	
12	Amines	
13	Structure determination	
Dec 4		Examination #3 Chapters 10-13

## Dec 12-18 FINAL EXAMINATION AS SCHEDULED BY THE REGISTRAR