CHEM 2132-01, ORGANIC CHEMISTRY - SPRING 2011
COURSE SYLLABUS

Lecture Instructor: Dr. Markus Etzkorn ***Office:*** Burson 268 (***Lab:*** Burson 210)

Phone: 704 687 4443 ***E-mail:*** metzkorn@uncc.edu

Office Hours: 1) Friday @11 AM, but only if you attend problem session before

2) Additional office hours by appointment only; please contact me by e-mail at least two days in advance.

Textbook: P. Vollhardt, N. Schore, *Organic Chemistry: Structure and Function*, 6th ed., Freeman & Company, New York **2011**.

Further Reading: - N. E. Schore, *Study Guide and Solution Manual for Organic Chemistry: Structure and Function*, 6th ed., Freeman & Company, New York, **2010**.

Please use the solution manual responsibly. You need to solve the problems step by step on your own, without consulting the former resource. It is crucial for your success in CHEM 2132 to understand each step of the solution!

- D. R. Klein, *Organic Chemistry I+II as a Second Language*, Wiley.

This book is a concise, consequently not very thorough, summary of the most important concepts you'll encounter in CHEM 2131 and CHEM 2132. It could serve as a brief introduction to each textbook chapter or as a quick review guide.

- other introductory organic chemistry textbooks.

Other textbooks can offer a different perspective or style that might be more complementary with your learning style. They usually cover comparable material. Nevertheless, they are no substitute for the course's textbook. Other introductory organic chemistry textbooks offer additional problem sets that certainly could be helpful.

Class:	Monday, Wednesday	9:30 - 10:45 PM (Burson 115)
Problem session:	Friday	9:30 - 10:45 PM (Burson 115)
Exams:	Friday	2:00 – 4:00 PM (Burson 121)

Please respect your fellow students and don't disturb the lecture! Try to be on time and have your cell phones on vibrating mode. Students who are repeatedly late or use their cell phones during class may be excluded from class. If there are any important personal circumstances or school activities that will interfere with this policy let me know <u>in advance!</u>

Course Prerequisites: A successful completion of CHEM 2131 with a grade C or better is obligatory. It is expected that you are familiar with the material of the prerequisite lectures at the beginning of CHEM 2132 (*even if your general chemistry classes were taken long time ago*). Thus, you should be able to solve all chapter 1-13 problems in your textbook (with the exception of spectroscopy problems) without having to consult your notes or the textbook.
A graded homework assignment on this material will be due on Tuesday, January 18th, 2010 by noon at my office. Furthermore, there will be an assessment exam on Wednesday, January 19th, 2010. In case of obvious deficiencies you have to address these issues as soon as possible, since there won't be enough time to review this material in depth.

Course Objective: CHEM 2132 will further introduce you to organic chemistry and make you familiar with additional fundamental principles of bonding, structure and reactivity. The course will cover chapters 10, 11 (IR spectroscopy and mass spectrometry) and 14-23. After the successful completion of this class you will have a basic knowledge of organic chemistry that should enable you to deepen your understanding of (organic) chemistry in the field of your future expertise.

Attendance: You should attend this class on a regular basis. Any announcement in class, any emphasis on certain topics or some additional material that is not covered in the textbook might ultimately be relevant for your performance. Your absence from lecture does not excuse you from missing any announcements made during the regular class time!
The attendance of problem sessions and active participation is **essential** for your success. Extra credit quizzes will be given either during lecture or problem session. There won't be any make-up of missed extra credit.

SI-Sessions: TBA

Exams: One assessment (100 points) at the beginning of the semester, four midterm exams (400 points) and a cumulative final (200 points equivalent) will be given during the semester. **There are no makeup exams!** If you have to be absent from any exam you will need to excuse yourself in writing prior to the test (emergencies excluded)! You need to provide written proof of your absence (i.e., doctor's note that excuses you on the exam day).
In some cases you will have to contact the Dean of Student Office as well. They will decide about the legitimacy of your absence (e.g., obituary that clearly establishes a relationship between you and the deceased person, …).
Any reclamation on tests – except those concerning obvious arithmetic mistakes – has to be in writing and must be submitted to me within one week after the official return of the assignment.

If you performance in any midterm exam or homework is below 45% *YOU MUST* make an appointment with me to discuss your "answers"!

Assignments: There will be one background homework (75 points) and one comprehensive homework prior to the final exam (75 points).
There will be pop-quizzes (50 points) for extra credit.
Constructive contributions in lecture and preparation/participation during problem sessions as well as overall trends in the course of the semester performance will be taken into account for the final grading.

Grades: Scores of ≥ 90%, 75%, 60% and 45% guarantees a grade of A, B, C and D, respectively.

There won't be any extra credits or favors; there won't be any curving either. The grade you earn is what you will get!

E-mails: It is your responsibility to have a valid e-mail address at the registrar's office. I will send out e-mails to the entire class using the accounts specified in BANNER. If you do not receive a mail that everybody else most students received you should immediately contact the registrar's office. I will not answer any e-mails that request trivial information (e.g., is problem XYZ test-relevant?). Not having received a homework assignment by e-mail is NOT a valid excuse for turning this in late, since the due dates are specified on the syllabus and you would have time to ask me for a hard copy in class / problem session.

Additional Midterm Exam / Honework Policies:

- Use the numbered pages of your exam for the solutions. Each exam has two additional blank numbered pages. If you need more space (paper) you have to inform me personally about additional pages when handing in the exam. No loose pages or pages without your name will be graded!
- Please be informed, that copies of all assignments / exams might be taken prior to handing the graded paperwork out to class. Any alterations on the original assignment / exam paper in a re-grade request will be considered as an attempt to cheat and lead to consequences that are specified under the UNC Charlotte academic honesty policy (see below).
- Homework assignments have to be delivered in a professional manner, i.e., no loose pages, no "fringes" on the paper, … Homework that is handed in unprofessionally will cost you valuable points.
- There is zero tolerance for late homework assignments: **late homework = 0 points!**

3 Attempts Policy:

The Chemistry Department is implementing a new policy regarding the number of times a student may attempt certain chemistry courses. The new policy states that "*Students may attempt CHEM 1251, 1251L, 1252, 1252L,* ***2131, 2131L, 2132, and 2132L*** *a total of three times each. Withdrawing from the course after the Add/Drop deadline constitutes an attempt as does receiving any letter grade.*" This means that any student who has attempted the relevant course three times (or more) before Spring 2011 will not be allowed to take the course again as of Spring 2011. A student who is taking the course for a third time in Spring 2011 is on his/her last attempt at the course.

Withdraw Policy (while retaining CHEM 2132L):

A student wishing to withdraw from CHEM 1251/1252/2131 lecture but retain the co-requisite lab may be allowed to do so if the following conditions are met: (1) the student must make a formal written request to the lecture instructor on the "Request to Retain Co-Requisite Chemistry Laboratory Form" no later than two weeks (fourteen calendar days) before the deadline to withdraw from a course with a "W" grade; and (2) the lecture instructor must determine that the student has actively participated in the course up to the due date for submitting such a request. Decisions will be made one week prior to the deadline for withdrawing from a class. The decision of the instructor is final.

The request to the instructor has to be filed by March 7, 2011. The corresponding forms will be provided by e-mail at least one week prior to the due date.

Religious Observance Policy (for details please see University Policy Statement # 134):

UNC Charlotte provides reasonable accommodations, including a minimum of two excused absences each academic year, for religious observances required by a student's religious practice or belief. Such reasonable accommodations must be requested in accordance with the procedures in this Policy, and include the opportunity for the student to make up any tests or other work missed due to an excused absence for a religious observance. An accommodation request imposes responsibilities and obligations on both the University and the student requesting the accommodation. UNC Charlotte faculty are required, as part of their responsibility to their students and the University, to adhere to this Policy and ensure its full and fair implementation by reasonably accommodating individual religious practices or beliefs. Regardless of any accommodation that may be granted, UNC Charlotte students are responsible for satisfying all academic objectives, requirements and prerequisites as determined by their instructor and the University.

Diversity: UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

Disabled Students: All students with disabilities who require University assistance with academic adjustments or auxiliary aids shall identify themselves to the Disability Service Office in a timely manner.
Phone: 704 687 4355

Academic Honesty: Students have the responsibility to know and observe the requirements of *The UNC Charlotte Code of Student Academic Integrity* (available online at **http://www.uncc.edu/policystate/ps-105.html**). This code forbids cheating, fabrication or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any special requirements or permission regarding academic integrity in this course will be stated by the instructor, and are binding on the students. Academic evaluations in this course include a judgment that the student's work is free from academic dishonesty of any type; and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNCC. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

Resources: The University Center for Academic Excellence (www.ucae.uncc.edu
Phone: 704 687 2162

Counseling Center (www.uncc.edu/counseling_center
Phone: 704 687 2105

Writing Resource Center (www.uncc.edu/writing)
Phone: 704 687 4357

Dean of Student Office (www.dso.uncc.edu)
Phone: 704 687 2375

This is not a complete list! If you have any questions you may browse the UNCC homepage or you should feel free to ask as well.

Advise:

Although there is some memorizing in organic chemistry, the emphasis will be on ***understanding conceptual ideas*** / ***applying tools for problem solving***.
There is no way that you could memorize organic chemistry to the level that is expected on exams and ultimately for the successful completion of this class.

It is very important to take ***notes*** and ***draw*** chemical structures, ***repeat*** the actual lecture and do ***problems*** with pencil and paper!!! ***Modeling kits*** (actual models and electronic substitutes) will help you to visualize molecules and particularly to explain and understand stereochemical problems.

Reading the textbook is not sufficient. You need to ***study*** the covered chapters. A typical student comment goes like this: "I have studied four hours every day before the exam and still failed" I know that this student most likely spent around 4 hours several days over the textbook but if asked a question about the "studied" chapter content she/he could not define important key words, not to mention solving any problem that was discussed in the text. In addition, studying only a few days before the exam will probably only suffice for a genius.
Organic chemistry is very different in this regard from many of the other chemistry classes you have attended so far. It is indeed like learning a foreign language. Conceptual ideas are your grammar, certain facts you memorize are your vocabulary. You need both to speak the language and in the beginning this will be slow and you probably will carry an accent (like your instructor when speaking English). ***Just don't be afraid of trying!*** ***Please get engaged in this class!***

This class demands continuous and disciplined studying / problem solving in order to be successfully completed. If you attend the Friday problem sessions (highly recommended!!!) prepare problems/questions to use the short time to your advantage. Students who attend the lecture on a regular base and commit the necessary time to develop problem solving skills have scored significantly higher in the past!

Important Dates – Spring 2011

Payment Due Date/Cancellation for non-payment – See UNCC Bill Payment Policy for Details *	January 5, 2011
Last day to drop all classes (100% refund) *	January 9, 2011
First day of classes	January 10, 2011
Dr. Martin Luther King Jr. Day - University Closed	January 17, 2011
Last day to change Grade Type (P/NC or Audit)	January 20, 2011
Last day to add, drop with no grade *	January 20, 2011 @ 11:59 PM
Deadline for graduate students to file candidacy forms for May 2011 degree	January 20, 2011
Last day to submit a grade replacement form *	January 20, 2011
2nd cancellation for non-payment	January 20, 2011
Saturday classes begin	January 22, 2011
Deadline for compliance with NC Immunization Law	January 24, 2011
Census date for Spring Enrollment	January 24, 2011
Deadline to apply for May 2011 graduation *	January 31, 2011
Unsatisfactory web grading access available	February 28, 2011
Unsatisfactory grades due on the web by noon	March 4, 2011
Fall 2011 Schedule of Classes and Final Exam Schedule available on web	March 7, 2011
Student registration appointment times available on web	March 7, 2011
Spring Break - No Classes	March 7-12, 2011
Unsatisfactory Grade notices emailed to students	March 9, 2011
Last day to submit graduate dissertation to the Graduate School for May 2011 degree	March 16, 2011
Last day to withdraw from a course with a 'W' grade *	March 21, 2011
Registration for Summer 2011 and Fall 2011 begins *	March 28, 2011
Deadline to withdraw from all courses with a 'W' grade *	April 11, 2011
Last day to submit graduate thesis to the Graduate School for May 2011 degree	April 15, 2011
Spring Recess - No Classes	April 22-23, 2011
Faculty Final web grading access available	April 29, 2011
Last day of classes	May 3, 2011
Reading Day	May 4, 2011
Final Examinations	May 5-6, 2011
Saturday classes final exams begin	May 7, 2011
Final Examinations continued	May 9-12, 2011
Ceremony Day	May 13, 2011
Commencement	May 14, 2011
Academic Year ends	May 15, 2011
Grades due on web by noon	May 16, 2011
Spring 2011 Probation/Suspension notifications sent to students	May 19, 2011

Tentative Schedule of Lecture and Exams:

January	10	M	Syllabus and Introductory Remarks by Dr. Brown
	12	W	no class
	14	F	no problem session
	17	M	Martin Luther King Day
	18	T	***Homework I due by noon at my office***
	19	**W**	**ASSESSMENT EXAM**
	21	F	class at 9:30 AM: Chapter 11 – IR SPECTROSCOPY / MASS SPECTROMETRY problem session at 2:00 PM
	24	M	Chapter 11
	26	W	Chapter 10 – NMR SPECTROSCOPY
	28	F	class at 9:30 AM: Chapter 10 problem session at 2:00 PM
	31	M	Chapter 14 – DELOCALIZED PI-SYSTEMS
February	2	W	Chapter 14
	4	**F**	**REVIEW AND 1. EXAM**
	7	M	Chapter 14
	9	W	Chapter 15 – BENZENE AND AROMATICITY
	11	F	Problem session
	14	M	Chapter 15
	16	W	Chapter 16 – ELECTROPHILIC ATTACK ON DERIVATIVES OF BENZENE
	18	F	Problem session
	21	M	Chapter 16
	23	W	Chapter 16
	25	F	Problem session
	28	M	Chapter 17 – ALDEHYDES AND KETONES
March	2	W	Chapter 17
	4	**F**	**REVIEW AND 2. EXAM**
	7	M	Spring Break
	9	W	Spring Break
	11	F	Spring Break
	14	M	Chapter 18 – ENOLS, ENOLATES AND THE ALDOL CONDENSATION
	16	W	Chapter 18
	18	F	Problem session
	21	M	Chapter 18
	23	W	Chapter 19 – CARBOXYLIC ACIDS
	25	F	Problem session
	28	M	Chapter 20 – CARBOXYLIC ACID DERIVATIVES
	30	W	Chapter 20
April	1	F	Spring Recess
	4	M	Chapter 21– AMINES AND THEIR DERIVATIVES
	6	W	Chapter 21
	8	**F**	**REVIEW AND 3. EXAM**
	11	M	Chapter 22 – CHEMISTRY OF BENZENE SUBSTITUENTS
	13	W	Chapter 22
	15	F	Problem session
	18	M	Chapter 23– ESTERENOLATES AND THE CLAISEN CONDENSATION
	20	W	Chapter 23
	22	F	No Class
	25	M	Chapter 23 ***Homework II due at the beginning of class***
	27	W	Review
	29	**F**	**REVIEW AND 4. EXAM**
May	2	M	Review
	3	T	Last Day Of Classes
	11	***W***	***FINAL EXAM: 8-10:30 AM - location (TBA)***

To keep track of your performance you should add your assignment / exam points into the attached scheme.

	Points	**Comments**
Homework I		
Assessment		
1. Midterm exam		
2. Midterm exam		
3. Midterm exam		
4. Midterm exam		
Homework II		
Final exam		

Notes:

CHEM 2132 – Spring 2011

Please read the syllabus carefully and ask any questions you might have during the first two lectures of the semester. Please turn this page in with your assessment on Friday, January 21^{2t} 2011.

I hereby certify that I have read and understood the syllabus.

Date:_____

Name (print):_____

Student #800_____

Signature:_____