SYLLABUS **Summer1 SEMESTER 2006**
ORGANIC CHEMISTRY 121 **TEMPLE UNIVERSITY**

Keep this syllabus. It contains much information essential to your success in this course.

		TIMES		ROOM	INSTRUCTOR
Lecture		**MTWTh**	**8:40 - 10:30 am**	**BE 162**	**Dr. J. Scovill**
Recitation	Sec 011	**MW**	**10:45 - 11:35 am**	**BE 413**	**Bei**
Recitation	Sec 012	**MW**	**10:45 - 11:35 am**	**BE 415**	**Desai**
Recitation	Sec 013	**MW**	**11:45 - 12:35 am**	**BE 413**	**Bei**
Lab	Sec 011	**TuTh**	**12:10 - 3:30 am**	**BE 409**	**Sen**
Lab	Sec 012	**TuTh**	**12:10 - 3:30 pm**	**BE 417**	**Chen**
Lab	Sec 013	**TuTh**	**12:10 - 3:30 pm**	**BE 419**	**Gone**
Lab	Sec 014	**TuTh**	**12:10 - 3:30 pm**	**BE 425**	**TBA**

Laboratory: Chemistry 123 is a separate course, which has Chemistry 121 as a co- or pre-requisite. Direct questions to Organic Coordinator: Dr. Findeisen, BE 400, afindeis@temple.edu

Course Description: Organic Chemistry (Chem 0121) is the first semester of a two semester sequence. It has General Chemistry (C072, C082, C092,or the equivalent) as a prerequisite

STUDENTS WHO DO NOT MEET THE PREQUISITE REQUIREMENT MAY RECEIVE AN "F" GRADE.

The contents of this course include structure, synthesis, and reactivity of hydrocarbons and some functional groups. Principles of organic spectroscopy and stereochemistry as well as the introduction of kinetics and reaction mechanisms are topics.

Scheduling: Your attendance at all lectures and recitations is expected and essential to your success in this course. In case of emergency, you may attend a lecture or recitation section other than your assigned one; however all quizzes and examinations must be taken in your assigned section. **There will be no make-up of missed quizzes, tests, or examinations. Drop/Add revision ends Friday, May 26.**

Textbook: John McMurry, **"Organic Chemistry, 6th Edition" Brooks-Cole Publishing Co., 2004** is required. You should read each chapter before its lecture. "Study Guide & Solutions Manual for Organic Chemistry" by Susan McMurry is recommended. Both are available in the TU Bookstore. Any other organic chemistry text is a useful supplement. Sets of molecular models may be purchased in the TU Bookstore.

Grading:			
	Midterm Exam 1:	200 points	[While point totals can not be
	Midterm Exam 2:	200	translated exactly into letter
	Final:	400	grades, a score of 850 points
	Recitation:	200	or more, will almost certainly
	Maximum Score:	1000	be an "A".]

Note: Barring miscalculation, all grades are final.

Examination Policy: All quizzes, tests, and examinations are "Closed Books". This means no books, notes, or reference material may be consulted during the Test period. Giving or receiving information during examinations is a violation of the Temple Student Discipline Code and will result, at minimum, in a grade of F for this course. Electronic devices, including calculators, phones, and PDA's are not permitted in the exam room. There will be no make-ups of missed quizzes, tests, or exams.

Recitation: There will be four 20 minute recitation quizzes (50 points each). **There will be no make-up quizzes, tests, or exams.** Find out from your instructor what the quiz average was. Your recitation grade relative to the quiz average is a good indication of your current performance. All students must be assigned to a recitation section that is designated for your lecture. If you do not have one, see Dr. Findeisen in BE 400, scovillj@temple.edu Recitation classes meet in BE 413 or BE 415.

Schedule: Chemistry 121 (May-June 2006)

Lecture Day:		Topic (McMurry) Chapters	Recitation Problems Assigned for Discussion in Recitation	
May:	15:	1	Ch.1: 1-22,25,26,30,31,35,41	
	16:	2	Ch.2: 1-22,25,26,30,31,35,41	
	17:	3	Ch.3: 1-12,15,16,18,21,23,29,40	
			May 18, Commencement	
	22:		Ch.4: 1-5,7,9,12,15-17,24-28,37,38,42,44,47,51b,d,53,56	
	23:	4		**QUIZ #1 (23/24 May)**
	24:	4	Ch.4:	
	25:		**MID-TERM EXAMINATION 1 (CHAPS.1-4)**	
			-Mid-term exams discussed in recitation	
			May 26: Last day to drop	
			May 29, Memorial Day	
	30:	5	Ch.5: 1-16,21,24,26,39,42	
	31:	5		
June	1:	6	Ch.6: 1-4,6,10,11,13-16,23,25,26,31,39-42,47-50	
	5:	6		**QUIZ #2 (5/6 June)**
.	6:	7	Ch.7: 1-10,12-19,23,24,25,30,42,49,54	
	7:	7		
	8:	8	Ch.8: 2-5,7-9,11,13,15,18,22,23,26,29,31,33,38,42	
	12:	8		
	13:	9	Ch.9: 1-12,14-26,28,36,40,41,44,54	**QUIZ #3 (12/13 June)**
			Tuesday, June 13: Last day to withdraw	
	14:		**MID -TERM EXAMINATION 2 (CHAPS. 5-9)**	
			-Mid-term exams discussed in recitation-	
	15:	10	Ch.10: 1-14,17,18,19,31,32,33,35	
	19:	11	Ch.11: 1-19,20,27,35,39,40,47,55	
			Spectroscopy software	
	20:	12	Ch.12: 1,2,4,10,17,19,22,23,28,29,31,37,39,40,42,50	
	21:	13	Ch.13: 6,7,8,11,13,14,19,20,21,31,32,36ab,37,38,43,44,46,49-53a,55	
	22:	14	Ch.14: 1-13,15,16,20,27,28,33,37,41	**QUIZ #4 (20/21 June)**
	26:	14		
	27:		**Final Exam (Chapters 1-14)**	

Office Hours: All faculty will have office hours by appointment.
The following table reflects additional hours.

	Office	e-mail address	Phone Number
Bei	BE420	niubei@temple.edu	215-204-3027
Desai		dshyam@temple.edu	215-707-4966
Bei	BE420	niubei@temple.edu	215-204-3027
Sen	BE420	sushmita@temple.edu	215-204-3037
Chen			
Gone	3d Fl Prep	swapna@temple.edu	215-204-6506

Drops/Withdrawals/Incompletes:

This course will adhere to the Department's and the University Policy regarding the last date to drop and/or withdraw from the course. The last date to drop is **Friday, May 26**.

Withdrawals can occur until a later time. For this semester this date will be Tuesday, June 13.

Please note that a withdrawal (W) is an institutional procedure that is not complete until the withdrawal form has been signed and submitted to the Registrar's office. This course is governed by the Temple University Policy

(#02.10.14) on Withdrawal. Please click here to view the policy.

[Non-attendance to the lab does not constitute"dropping" the course. Inattention to the proper procedure or failure complete the process and lab drawer "check-out" may result in the awarding of an "F" grade.]

Please note that an "Incomplete" or "I" is only to be given in accord with institutional procedures and which cannot be assigned until the specific requirements have been met, and forms signed and submitted. This course is governed by the Temple University Policy (#03.12.13) on Incompletes. Please click here to view the policy. To obtain an "incomplete", the usual incomplete contract must be signed upon completion of 50% of the work and where there is a valid excuse (medical or similar) for missing the remainder of the course. The fear of earning a poor grade is not considered a valid excuse. The student's accumulated total to that point should be more than 75% of the possible points.

For those students who are assigned a grade of "I", all previous scores will stand and be used is the calculation of the final score when the course is completed. Students wishing to pursue an incomplete must obtain an Instructor Approval for an Incomplete Form (available from the web page) that the student and his or her instructor(s) must complete, before taking it to Dr. Findeisen to be used to drafting the official incomplete contract. Only Dr. Findeisen can sign and process incomplete contracts.

Recitation Problems: Answers to all assigned problems can be found in the Study Guide. It is essential that you work through each problem and understand the theory/method used for its solution, and do this BEFORE the recitation in which it is discussed. Mere copying of the answer into your notebook is useless. Experience has shown that students who do more than the assigned problems do well in this course. Exam questions will be in similar format to book problems.

Some Friendly Advice - Organic Chemistry is a difficult course. For many, it will be the most difficult and time-consuming of your college career. You can make it easier on yourself by doing the following: (1) Do as many problems as you have time for beyond those assigned. Even if they are from another book, the practice will help. (2) *Do study regularly.* If you fall behind, it's hard to catch up. (3) You should understand theory and method. You may try to memorize definitions and summaries at the end of each chapter, but there is far too much material to memorize everything.

Unlike many other courses, the concepts introduced each week of the class will remain important during the remainder of the course, right through second semester.

GENERAL INFORMATION -

Specific Goals and Objectives:

The primary objective of this course is to introduce the student to the fundamental principles of organic chemistry and to develop analytical skills. More specific objectives are:

- To learn the details of chemical bonding and the different hybridizations (sp^3, etc.)
- To learn about isomers (constitutional, configurational and conformational)
- To learn in a systematic manner through mechanisms a variety of organic reactions involving carbocations, free radicals, carbenes, S_N1, S_N2, E_1, E_2, and electrocyclic reactions.
- To learn about resonance.
- To be familiar with the nomenclature, preparation and reactions of the functional groups: alkanes, alkenes, alkynes and alkyl halides.
- To understand the three dimensional shapes of simple organic molecules (stereochemistry, how their shapes affect reactivity through the use of molecular models).
- To begin to be able to do multiple step transformations of simple organic molecules, i. e. begin to learn organic synthesis.

Student Learning Outcomes:

Students will be able to:

- Recognize simple alkanes, alkenes, alkynes and alkyl halides and know the hybridization of each functional group.
- Be able to name in a systematic manner (IUPAC) simple organic compounds such as alkanes, alkenes, alkynes and alkyl halides.
- To be able to recognize and distinguish the three major types of isomers (constitutional, configurational and conformational).
- To be able to construct models (using model kits) of simple organic compounds such as alkanes, alkenes, alkynes and alkyl halides.
- To understand the following simple mechanisms: electrophilic addition, free radical halogenation, S_N2, S_N1, as well as E_1, E_2 and electrocyclic reactions such as the carbene and Diels-Alder reaction.
- To know about 30 organic reactions and be able to use them in organic synthesis.

- To develop an appreciation for the concept of resonance.

Closed Sections: If the recitation or laboratory section(s) you would like are closed you should continue to check the Diamond Line & On-Line Course schedule (see Drop/Add above). You should also examine your schedule carefully to determine if any of the other open sections fit your schedule. After exploring all other alternatives the student may request a Closed Section Approval Card (i.e. Green Card). To do this, the student must attend the first week of recitation and/or lab for the section(s) they wish to add. After considering the availability of space, a limited number of Green Cards MAY be issued at that time on first come first serve basis. Only Dr. Findeisen may issue green cards. Students should have a second and even third choice in case they are unable to obtain their first choice. No Green Cards will be issued before the first scheduled meeting of that section.

Readings: Even though you may not understand the material fully the first time, you should read through each chapter BEFORE it is scheduled to be discussed in the lecture (see attached calendar). You will be held responsible for all the text material in the following chapters, except for any sections that your instructor specifically tells you that you may exclude. Unforeseen circumstances may require that adjustments be made to the schedule. Check the web page for announcements, changes, and updates.

Homework: In order to obtain a practical understanding of how chemical theory is applied, you will need to work through the assigned end-of-the-chapter problems. The more important topics have more assigned problems. You should be ready to discuss them when your recitation class is scheduled to deal with the chapter material (see attached calendar). The listed problems represent the minimum necessary for you to develop a working foundation in chemistry. You are encouraged to work additional problems and seek help outside the classroom. Unexpected circumstances may cause your instructor to make changes to this schedule. Check the web page for announcements. If you miss a class, be certain to find out if the schedule has been changed.

HELP!!! Make certain you take full advantage of all the academic support services available at Temple - on the Main Campus and at Ambler. These include instructor office hours, the Math and Science Resource Center (MSRC) **relocated from Curtis Hall Room 17, 13th & Montgomery**, Main Campus in addition to Supplemental Instruction sessions. The services provided at the MSRC include one-on-one tutoring, computer lab, weekly group tutorials/supplementary instruction, final exam review sessions, and a resource library. The center is open 6 days a week AND IS FREE. For additional information check http://www.temple.edu/MSRC.

Disability Resources and Services: Any student who has a need for accommodation based on the impact of a disabillity should contact their instructor privately to discuss the specific situation as soon as possible. Contact Disability Resources and Services at 215.204.1280 in 100 Ritter Annex to coordinate reasonable accommodations for students with documented disabilities.

Problems: You should first attempt to resolve any problems that you are having with your laboratory or recitation instructor(s). If after speaking with the instructor you have not resolved the issue, you should speak with the course coordinator before speaking to your lecturer. As coordinator he will attempt to mediate, but the ultimate decision is often determined by department policy. DO NOT expect your instructor to make new policy. *However, if you are having problems with the professional conduct of your instructor you should contact the course coordinator immediately.*

Make-ups: There will be no make-ups of missed recitation quizzes, tests, or final examinations.

Cheating: All students are expected to adhere to the highest levels of academic integrity. Any students found cheating (i.e. copying answers to exam, quiz, or homework; submitting experimental data that they did not collect; presenting graphs and calculations; or otherwise taking credit for work that they did not perform) will receive a failing grade in the course. They will also be reported to the Dean's office in the College of Science and Technology.

Miscellaneous: 1). Cell phones are to be turned off during lecture and exams.
2). No electronic devices other than a basic "four function" calculator may be used during an exam.
3). During testing situations, you have completed the test when you leave the room. Visit the restroom facilities before sitting for your exams.
4) Photo identification may be required at any test. Be prepared.