CHEM 22404 - ORGANIC CHEM II Spring 2020

Professor Manashi Chatterjee
Office: 1319 HN
Telephone: (212) 772-5377
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Lecture: Tuesday and Friday 1:10 PM - 3:00PM, North Bldg 118

Office Hours: 1319 B HN
Tuesday: 4:00 pm – 6:00 pm

Recitation Instructors:
Rebecca Malakhov-Ruvinsky: Rebecca.Ruvinsky56@myhunter.cuny.edu
Lazaro Angeles: Lazaro.Angeles86@myhunter.cuny.edu
Francesca Dorwart: Francesca.Dorwart23@myhunter.cuny.edu
Jessica Malcolm: Jessica.Malcolm19@myhunter.cuny.edu

Recitation Instructors: ***Office Hours: In 1319 B HN***
(unless otherwise specified on BB)

For the most up-to-date contact information and office hour details: please see the "instructor" and "office hours" tabs on Blackboard, where you will find all information necessary for the professor, recitation instructors, and peer TAs.

Help Sessions by Peer Teaching Assistants (*1319 B HN***):**
(*Former Organic Chemistry students who have excelled in this class and have agreed to volunteer their time. They will hold office hours to help you achieve your learning goals, assist us during lecture to answer questions, and help with WileyPLUS homework questions and issues.)*

All office hours will be held in 1319 B HN, please visit office hours regularly. We are here to help you succeed! ***The room holds 10 – 15 students. We help students in groups so you can attend and learn from the questions your peers have.***

Wiley Plus Student Partner: Use the email below to get help with Wiley issues
HunterOrgo Wiley Help email: hunterorganicchemwileyhelp@gmail.com

Two peer Teaching Assistants will help you with any Wiley Plus related question.
Molly Bekbolatova: Molly.Bekbolatova71@myhunter.cuny.edu
Anmol Sahota: Anmol.Sahota12@myhunter.cuny.edu

Skirball Science Learning Center (SSLC): 7th Floor, East Building
Hunter College provides Peer Tutors for Organic Chemistry
https://library.hunter.cuny.edu/skirball-science-learning-center

Phones (texting) and computers (unless used for taking notes) must be turned off during the Lecture, Exams and Recitations.

YOUR CLICKER POINTS FOR THE DAY WILL BE FORFEITED IF YOU DISTURB THE CLASS

A student taking a four credit course that meets for four hours a week should expect to spend an additional eight hours a week on coursework outside the classroom.

Textbook and Course Materials:

1. David Klein, Organic Chemistry, Third Edition, John Wiley & Sons is required. A complete online version of the textbook is included with Wiley Plus.
   Check link on BB announcement for best bundle price for Hunter Students.
2. A PRS transmitter "i-clicker", which will be used for in-class discussions and quizzes.
3. Wiley Plus online HW- register from BB

Website:

Materials related to this course, including this syllabus, announcements, course documents, exam keys, and grades will be posted on Blackboard
Be sure to check and update your email address associated with Blackboard. ***It is imperative that you check your Hunter email as well as Blackboard regularly.***

Prerequisite: "C" or better in CHEM 222 or equivalent (Department Policy-no exceptions).

I strongly recommend that you review your Chem 222 notes, especially topics like acids and bases, stereochemistry, spectroscopy (IR, Mass), nomenclature, different types of reactions: Substitution, Elimination, Addition to alkenes and alkynes, reaction mechanisms, reagents, retro-synthesis.

Course Objective:

Chem 224 is the second semester of organic chemistry and is designed to follow a one-year course in general chemistry and a semester of Organic Chem 222 or equivalent. It assumes a very sound knowledge of atomic structure, chemical bonding, acids/bases, reaction stoichometry, equilibria, transition states, energy diagrams, naming organic molecules, recognizing functional groups, hybridization, shapes of molecules, properties, Reactions of Alkanes, Alkenes, Alkynes, Alkyl halides, Alcohols, Resonance, organic intermediates (carbocations, radicals, carbanions), Fundamentals of organic synthesis, Role of solvents, Retro-synthesis and spectroscopy. Chem 222 should have provided you with a strong introduction to basic principles of organic chemistry, which you will extensively use during this semester. You should be prepared to review this material if you have forgotten these key concepts.

Most biological processes involve organic chemistry; understanding most biological processes at the biochemistry level requires knowledge of organic chemistry. While the second semester course (CHEM 224) will focus much more on reactions and synthesis of carbonyl compounds (aldehydes, Ketones, Acids and Acid derivatives); Aromatic compounds and Amines and application of these reactions in biomolecules (carbohydrates, lipids and proteins)

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Overall, the study of organic chemistry teaches as skill set and a logical pattern of thinking that is prized in many fields.

Recitation: Recitations will focus on problem solving and reviewing material that is being covered in class. ***You will have a 20-minute quiz during three recitations***. **Quiz may be administered at the beginning, middle or towards end of recitation.** You are required to take the Quiz in your recitation

section-No exceptions and please arrive on time for these recitations. There will be no makeup quizzes.

Recitations are Mandatory: ***Recitation Instructor's will assign 20 points based on your preparation and recitation participation at the end of semester.***

NOTE: Attending all recitations does not guarantee full 20 points. Participation does not mean attending all recitations or raising hands to ask questions. In addition to problem solving during recitation, you will be asked to hand in one problem at the end of recitation. Your recitation instructor will randomly assign this during recitation or find a way to evaluate your performance. A combination of many factors will determine your level of participation and finally determine your recitation points.

Any student who submits a grade appeal based on recitation points assigned by recitation instructor will have their bonus assignment points and bonus points on exams will be removed/ forfeited before determining their letter grade.

Section 1R1	4:10PM - 5:00PM	Friday	West Bldg W217	Francesca Dorwart
Section 1R2	10:10AM - 11:00AM	Tuesday	West Bldg W217	Lazaro Angeles
Section 1R3	10:10AM - 11:00AM	Friday	West Bldg W217	Lazaro Angeles
Section 1R4	9:10AM - 10:00AM	Monday	West Bldg W217	Rebecca Ruvinsky
Section 1R5	10:10AM - 11:00AM	Monday	West Bldg W217	Rebecca Ruvinsky
Section 1R6	9:10AM - 10:00AM	Tuesday	West Bldg W217	Lazaro Angeles
Section 1R7	11:10AM - 12:00PM	Tuesday	West Bldg W217	Jessica Malcolm
Section 1R8	5:10PM - 6:00PM	Tuesday	West Bldg W217	Jessica Malcolm
Section 1R9	6:10PM - 7:00PM	Tuesday	West Bldg W217	Rebecca Ruvinsky
Section 1R10	7:10PM - 8:00PM	Tuesday	West Bldg W217	Rebecca Ruvinsky
Section 1R11	4:10PM - 5:00PM	Wednesday	West Bldg W217	Francesca Dorwart
Section 1R12	3:10PM - 4:00PM	Friday	West Bldg W217	Francesca Dorwart
Section 1R13	3:10PM - 4:00PM	Wednesday	West Bldg W217	Francesca Dorwart
Section 1R14	5:10PM - 6:00PM	Thursday	West Bldg W217	Jessica Malcolm
Section 1R15	6:10PM - 7:00PM	Thursday	West Bldg W217	Jessica Malcolm
Section 1R16	9:10AM - 10:00AM	Friday	West Bldg W217	Lazaro Angeles

Note: CHEM 225 LB - ORGANIC CHEM II (LAB) *is a parallel but separate course.*
For information on Organic II lab Recitaion: Please contact Alison Domzalski: ad2459@hunter.cuny.edu

If you have other questions, contact the lab coordinator, Dr. Manashi Chatterjee

IMPORTANT DATES: (Please confirm the dates on the Hunter college website)
Jan 27: Classes begin
Feb 02: Last day to add a course or drop a full semester course and receive 75% refund
Feb 09 : Last day to drop for 50% tuition refund
Feb 16 : Last day to drop for a 25 % tuition refund: Last day to drop without a "W"
Apr 01: Course withdrawal period ends: Last day to drop with a grade of "W"

Wednesday FEB 12: HOLIDAY
Monday FEB 17: HOLIDAY
Tuesday April 7: WEDNESDAY SCHEDULE
Wednesday - Thursday- Apr 8 – APRIL 16: SPRING BREAK

Grading: Grades will be based upon: 730 points

Clicker questions	50 pts	(total clicker points will be scaled to 50 pts)
Electronic Homework (WileyPLUS)	30 pts	(total Wiley points will be scaled to 30 pts)
Quizzes (3 x 20)	60 pts	
Recitation Participation	20 pts	
Midterms (3 x 100)	300 pts	
Comprehensive Final	200 pts	
ACS-Exam	**70 pts**	(total points scaled to 70 points)

Grading Scale: The average GPA for CHEM 224 (equivalent) ranges from 2.25 to 2.75; the actual average grade in a given course can vary tremendously with the background, talent, and work ethic of students in that course. If your score falls in a given bracket (below), you are guaranteed to receive at least that grade. This is an extremely fast passed course and requires consistent effort throughout the semester. Final letter grade cut off will be based on points earned (out of 730) listed below.

A+ : 694 and above	A : 657 - 693	A- : 636 - 656
B+ : 621- 635	B : 548 - 620	B- : 511- 547
C+ : 475 - 510	C : 438 – 474	
D : 402 - 437	F : 401 and below	

Incomplete, P/NP, Add/Drop, Withdrawing: An incomplete (IN) grade will only be considered for a student who has completed the majority of the course and is unable to complete the course due to health reasons, military service, hardship or death in the immediate family. The course will follow standard Hunter College policies and deadlines for add/drop, P/NP, and withdrawing.

Policy on Incomplete grade: Incomplete (IN) grade may be given if a student has a reasonable chance of passing the course but cannot complete it because of a valid reason. In order to be considered for the IN grade, students need to present verifiable proof.

Policy on CR/NC grade: The CR/NC request will not be accepted after the final exam. Announcement on when and where to submit form will be made before the final exam starts.
See the Hunter College Catalog or visit http://md2.hunter.cuny.edu/webgrade/regmemo.jsp for College grading policy on CR/NC, INC, WU etc

Exams:

- Exams will draw from lecture, text, and assignments/online HW, recitation problems, practice problems to name a few. Molecular models may be used during exams. No other notes, materials, or electronic devices are permitted. Phones and computers must be turned off during the exams; no communication of any sort is permitted. **Recitation Quiz will be based on any material covered in class and recitation till the day before you take your Quiz. Practice exams will be posted on BB. All exams will require knowledge of material from Chem 222.**
- Missed Exams: **NO MAKE UP EXAMS OR QUIZZES**: In any class this large, there will be emergencies that cause students to miss exams. In the event of a verified emergency (medical or death in family), the student is to contact Dr. Chatterjee by **email and in person as soon as you get back.** If, in my judgment, the excuse is valid, ***I will substitute your final exam percentage for the test grade.*** If you miss more than one test you will have to withdraw. I will require you to bring a Proof to document your absence for any missed exam. IF YOU MISS THE FINAL FOR A VALID REASON – YOU WILL EARN GET AN "INCOMPLETE" IF YOU MAINTAINED A PASSING GRADE OR BETTER PRIOR TO FINAL IN ALL EXAMS ADMINISTERED IN COURSE. YOU WILL HAVE TO TAKE THE MAKE UP WITH THE

INSTRUCTOR WHO WILL BE TEACHING THE FOLLOWING SEMESTER. IF YOU HAVE HAD A FAILING GRADE TILL THE FINAL AND MISSED THE FINAL EXAM YOU WILL EARN - F OR A NC.

- Graded exams will be available outside 1319 HN (Professor Chatterjee's office). Any requests for re-grades must be submitted to Dr. Chatterjee or your TA within 48 hours. Please note that the entire exam will be re-graded. **Any alterations of exams submitted for re-grade will be treated as academic dishonesty. Random set of exams may be photo copied before returning to students.**
- There will be no re-grade on the Final. **Final will not be returned**. You can visit me in person in Fall 2020 to take a look at your final if you believe a major grading (addition) error has is possible. Entire exam will be regarded.

Clicker Quizzes:

The PRS "i-clickers" will be used to facilitate classroom discussion as well as to administer short quizzes during many/most lectures on materials presented in the previous lectures or current lecture.

Please register your clicker on the clicker website. Announcement (steps to register) will be posted on BB.

- During the first AND second lecture, we will use the PRS "clickers" for several short exercises to make sure everyone is ready to use the system. Beginning in the THIRD LECTURE, we will have a clicker questions in most lectures, AND THEY WILL COUNT TOWARDS CLICKER POINTS.
- There are no make-ups for missed clicker or if your clicker is not working and you cannot join the class.
- Misrepresentation of identity on a clicker quiz (whether you pretending to be someone else or vis versa) is academic dishonesty.
- Points you earn over the semester will be scaled to 50 points. I will scale so that you can miss 10 % of the clicker questions and still earn full points. This will take care of the day you miss class or your clicker did not work.
- i-clicker 2 can be purchased at the bookstore or online.

Electronic Homework:

The Wiley Plus will be a useful practice/study tool, which will be used as an additional learning resource along with Klein's text. Homework will be scaled to 30 pts. You will be able to attempt each question 2 times without penalty and 3 times with a % deduction. You are responsible for completing the assignments by the deadlines (these will show up on the online homework link). You may need to get a little practice using "MarvinSketch" or the embedded drawing software. Please do not leave to work on the online HW till the due date. The last HW will be due during week 16 and will be part of your grade. **Misrepresentation of identity on an online HW (whether you pretending to be someone else or sharing passwords) is academic dishonesty.**

Your overall homework grade will be taken by determining what possible homework points that you earned. That is,

homework grade = (your total homework points/maximum homework points possible) * (number of homework points allowed)

Some questions may have software problems, which your instructor will report to Wiley. Please do not get worked up and spend a lot of time in solving such questions to get a 100%.

To account for problems that have software issues you will be assigned full points on the HW when you score 90% or above and others scores will be scaled accordingly. I will try my best to remove these questions or make an announcement as soon as it comes to my attention.

Read instructions carefully- drawing all lone pairs, use correct arrows (radical, resonance, curved arrow) and get help if you miss the first two attempts.

Academic Honesty:

Any case involving academic dishonesty (see "Code of Conduct" in *Undergraduate Bulletin*) will result in a **failing grade for the student(s) involved** and will be reported to the Director of Student Judicial Affairs. Any student found cheating will be subject to the penalties stated in the Code of Student Conduct; including, but not limited to, a score of zero on exam, expulsion from the class, or expulsion from the University. If a student is accused of cheating in a lecture course in the chemistry department, the student's case will be submitted to the Office of Student Conduct. If the student is found guilty of cheating on an exam, the student will be given an exam grade of 0 but will be allowed to continue in the course. The student will receive an Academic Sanction. The student's grade will be calculated with the zero and the student will be permitted to pass the **course with the highest grade possible grade of C** (if the student does in fact passes the course). If any student requests a re-grade of a test, that student's future tests will be copied.

Students with Disabilities:

Accommodations are provided for students who are registered with AccessABILITY Services and make their "Request" sufficiently in advance to take exams and final at the accessibility center.
It is recommended that you take "**Quiz during the Recitation"** so that you do not miss the later half of the recitation problem solving session.
You will be **only allowed to take exams and finals at "AccessABILITY Center" on the same day and time when the Chem 224 class takes their exam.**

AccessABILITY information:

"In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/ or Learning) consult the ***Office of AccessABILITY located in Access & Technology Center in Room 300, North Building to secure necessary academic accommodations.*** If you have any questions regarding the Office of AccessABILITY, please contact them by phone at (212) 772-5478
, email: accessability@hunter.cuny.edu

Access & Technology Center (Room 300, North Building)

http://www.hunter.cuny.edu/access/services-programs/accesscenter

Please book an appointment with me for signatures on any forms.
I will not be signing forms in the hallway or lecture hall.
Please visit the website below (cut and paste on a browser) and select Dr. Chatterjee.

http://www.hunter.cuny.edu/chemistry/advising

Hunter Library:

The Leon and Toby Cooperman Library at Hunter College-The **Cooperman Library** entrance is located on Floor 3 of the Hunter East Building.

http://library.hunter.cuny.edu

Student Help Desk: Hunter North 303

http://www.hunter.cuny.edu/it/get-help

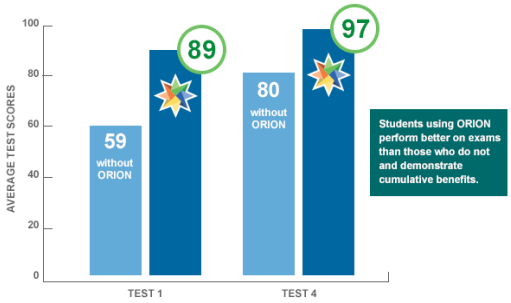
The Student Help Desk provides services for students experiencing issues with signing into their accounts, such as the following: CUNY Login (CUNYfirst, Blackboard, DegreeWorks, FACTS); Student MyHunter Microsoft Office365 Email; Hunter NetID

Review Sessions: Special review sessions (1-2 h) will be arranged during the semester especially before exams. Location and schedule will be posted on the black board and announced in class.

WILEY PLUS Resources from BB (in addition to Wiley Plus Online HW)

Please visit the Wiley Plus Reading resources where you will find the entire online book, selected videos, solved problems and ORION Adaptive Learning

Research shows that students who have used ORION for just a few minutes per week have shown improved test scores.*



http://www.wiley.com/college/sc/oriondemo/research.html?elq_mid=1056&elq_cid=734108

Results vary with course and student population-

THERE ARE NO POINTS FOR ORION
IT WILL PROVIDE ADDITION PRACTICE PROBLEMS THAT YOU CAN USE TO UNDERSTAND WHERE YOU NEED HELP

Using ORION does not guarantee any letter grade or % or passing the course

- ***KNOWLEDGE OF IR/ MASS AND ALL CHEM 222 MATERIAL IS REQUIRED***
- ***REVIEW THE SUMMARY PAGES OF THE CHAPTERS AS AND WHEN REQUIRED***
- ***BECAUSE OF THE NATURE OF THE COURSE THIS COURSE IS CUMMULATIVE IN ALL RESPECT***

Chemical Dynamics and Reactivity: Organic Chemistry - II

Lecture: Tuesday and Friday 1:10PM - 3:00PM, North Bldg 118

Week 1	T	Jan 28		Ch 12	***ALCOHOLS AND PHENOLS***
	F	Jan 31		Ch 12	***ALCOHOLS AND PHENOLS***
Week 2	T	Feb 04		Ch 13	***ETHERS AND EPOXIDES***
(Quiz I)	F	Feb 07		Ch 13	***ETHERS AND EPOXIDES***
Week 3	*T*	*Feb 11*		Ch 15	***NMR***
	W	***Feb 12***	***College Closed***		
	F	Feb 14		Ch 15	***NMR***
	M	***Feb 17***	***College Closed***		
Week 4	T	Feb 18		Ch 15	***NMR***
	F	Feb 21		Ch 16	***CONJUGATED PI SYSTEM***
Week 5	T	Feb 25		Ch 16	***CONJUGATED PI SYSTEM***
	F	***Feb 28***		***Exam-1***	
				(CHAPTERS 12, 13, 15, 16)	
Week 6	T	Mar 03		Ch 17	***AROMATIC COMPOUNDS***
	F	Mar 06		Ch 17	***AROMATIC COMPOUNDS***
Week 7	T	Mar 10		Ch 18	***AROMATIC SUBSTITUTION***
(Quiz II)	F	Mar 13		Ch 18	***AROMATIC SUBSTITUTION***
Week 8	T	Mar 17		Ch 18	***AROMATIC SUBSTITUTION***
	F	Mar 20		Ch 19	***ALDEHYDES AND KETONES***
Week 9	T	Mar 24		Ch 19	***ALDEHYDES AND KETONES***
	F	Mar 27		Ch 19	***ALDEHYDES AND KETONES***
Week 10	T	Mar 31		Ch 20	***CARBOXYLIC ACIDS***
	F	***Apr 03***		***Exam-II***	
				(CHAPTERS 17, 18, 19)	
Week 11	***T***	***Apr 07***	***(No Lecture: Wednesday Schedule)***		
	F	***Apr 10***	***Spring Break (April 08 to April 16)***		
Week 12	***T***	***Apr 14***	***Spring Break (April 08 to April 16)***		
	F	Apr 17		Ch 20	***CARBOXYLIC ACIDS***
Week 13	T	Apr 21		Ch 21	***REACTIONS AT ALPHA CARBON***
(Quiz III)	F	Apr 24		Ch 21	***REACTIONS AT ALPHA CARBON***
Week 14	T	Apr 28		Ch 22	***AMINES***
	F	***May 01***		***Exam-III***	
				(CHAPTS 20, 21, 22)	
Week 15	T	May 05		Ch 22	***AMINES***
	F	May 08		Ch 24	***CARBOHYDRATES***
WEEK 16	***T***	***May 12***	**ACS-Exam**	**(Comprehensive Chem 222 & 224 - 70 points)**	
	F	***May 22***	**Final**	**(Comprehensive - 200 points)**	

(11.30 am to 1:30 pm)- Note only Final is at a different time (NOT LECTURE TIME)

Sections of Chapter 23 will be assigned for self-reading and will be required for the ACS.

NO EXAM SCORES ARE DROPPED

This schedule provides a tentative timeline for Spring 2020
Professor Chatterjee reserves the right to update, modify and make changes as required.

Good Luck and Have a Great Semester!!!!!
Please make use of all the wonderful resources that the chemistry department has to offer to help you succeed.