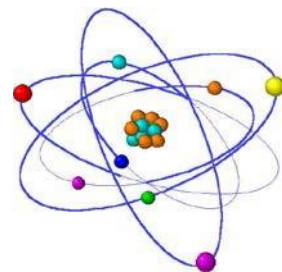




Chemistry 106
Hunter College of the City University of New York
Department of Chemistry & Biochemistry



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Welcome to Chemistry 106

Chemistry is a challenging and often abstract science, but as you progress through this course we hope you will discover that chemistry is also exciting and that many of the key concepts in chemistry are both important and relevant to life on earth. Throughout this semester we will provide you with the basic skills and knowledge to think and feel like a chemist. You will learn that chemistry is exciting!

Blackboard 9.1:

You have to use your hunter email to log in on Blackboard.

Instructions on how to access the course website on blackboard can be found at: <http://bb.hunter.cuny.edu>. You should check the site regularly. It can also be used to communicate with your classmates.

Blackboard is an excellent tool. I will post periodically announcements, additional resources and helpful hints. We will use the discussion board to communicate as a class and to discuss laboratory data.

Email: You can find information about Hunter email through a link at: <http://www.hunter.cuny.edu/icit/help-docs/e-mail-faq>

Your username and password should have been mailed to you. Please make sure that if you are not using this email account, you set your mail to forward to an account that you do use. Instructions on how to forward mail can be found through the link above. We will be sending you important emails through blackboard. The information you may miss is likely to impact your grade if I don't have email contact with you.

A. DESCRIPTION

This course will present essential facts, laws, and theories of general chemistry.

B. OBJECTIVES

Upon successful completion of this course, the student will be able to develop problem-solving skills, use definition, concepts, and ideas to predict how a chemical process will occur, test the understanding of the basic concepts.

C. GRADING POLICY

Your overall letter grade will be based on the total number of points you earn in the course. The total number of points that can be earned in this course is **2250**. This total will be converted to a percentage (out of 100%) and scaled according to the Hunter College Grading system.

20 Laboratories (Lab Reports)	100 pts
Scientific Presentations x 2	100 pts
Excel Exercise	40 pts
Safety Quiz	10 pts
Attendance/class participation/summaries	100 pts

D. LABORATORY POLICY:

Attendance for each laboratory experiment is **MANDATORY**. You will be allowed one excused absence for the semester*. Any subsequent absences will result in a grade of zero for that experiment. If you are more than 10 minutes late for lab you will not be allowed to complete the experiment. This will count as your one excused absence for the semester. **NO MAKE-UP labs.**

All cell phones, pagers, CD players, MP3 players, etc., must be turned off while in the class. Any students who disrupt the class will be asked to leave.

E. SUMMARIES:

A typed summary of each lab is to be submitted at the beginning of class- this is to ensure you have read the instructions for the lab that will be performed that day. Lab summaries should consist of 3-4 sentences and are worth 2.5 points each as part of weekly Attendance / Class participation.

F. LAB REPORTS:

Lab reports are to resemble the format found at the back of your lab manual and be turned in promptly at the start of class. Each student is responsible for submitting two lab reports (one for the wet lab, one for the dry lab) SEPARATE from their lab partner. Lab reports will be graded and returned to students at the following lab session. Your lowest lab report will be dropped- I would suggest completing all of the lab reports in case you find that one is more difficult than another. **LATE LAB REPORTS WILL NOT BE ACCEPTED.** Some lab reports may take a full day to complete so I recommend doing a little each day so that you're not pulling all-nighters to complete them. DO NOT WAIT UNTIL THE LAST MINUTE!

No title page or TOC - double-sided ideal. No more than 2 pages ideally (for the written portion) - obviously the graphs / data will add more pages to the report. If you can fit it all on 1 page, great, but must answer the grading criteria and rubric.

This is not a creative writing class, so don't want to see content like...Joe walked briskly to the sink and scrubbed the beaker with all his might before using the acetone to dry it - 1) Definitely don't describe the washing process in your report, 2) Science writing is very straight to the point. If you are unsure about how to do science writing, you can look it up on the web to see how its done. Procedure must be in bullets.

If an error was done in the experiment, explain what happened. Don't be vague or try to guess what happened - own it and you will get full points. If you say something like, the equipment is defective - then I know something is up.

To get ahead on writing lab reports: Make your summaries like your introductions so that you can get ahead on the next sections of the lab! Make sure that it syncs with the criteria for what an introduction should look like per the lab manual

Data tables and graphs can be shared between lab partners, but written content must be unique. Lab partners submitting identical reports will result in a zero for that report and will be reported to the Chemistry department. Calculations must be typed unless otherwise stated. Plagiarism will not be tolerated.

TIP: Work with your partner early to manage the calculations and data. Inputting the data and calculations can take a lot of time!

G. DRESS POLICY:

Students are expected to wear long sleeves or $\frac{3}{4}$ length sleeve shirts, long pants and close-toed shoes. Shoulder-length or long hair **MUST** be tied back. Safety goggles are to be worn at ALL TIMES once inside the lab or participation points will be deducted. Lab coats are optional.

Do not wear: Loose clothing, short sleeves shirts, shorts, skirts, sandals, flip-flops - doing so can result in an automatic absence from the class. Come prepared!

H. MATERIALS TO BRING EACH CLASS:

Lab manual, safety glasses, calculator, personal laptop, notebook for recording observations. No food or drink allowed during the lab.

TIP: Cell phones are only allowed for taking photos of the experiments done in class. We will be doing 2 presentations in the course so taking pictures to recall observations for your lab report or presentation later on is okay. NO SOCIAL MEDIA.

In the first day of lab you will be required to have:

- Laboratory Manual: Chemistry 106 "General Chemistry Laboratory" by G. Smeureanu and S. Geggier (available for purchase ONLY at Shakespeare bookstore or Hunter College online bookstore)
- Carbon Copy Laboratory Notebook 100 pages -- (available for purchase ONLY at Shakespeare bookstore or Hunter College online bookstore)
- Calculator
- Safety glasses (available for purchase ONLY at Shakespeare bookstore or Hunter College online bookstore)

➤ **Bring your own computer (if you have one) with you to the lab**

1. Academic Integrity Statement: "Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures."

2. ADA Statement: "In compliance with the ADA and with Section 504 of the Rehabilitation Act, Hunter College is committed to ensuring educational access and accommodations for all its registered students. Hunter College's students with disabilities and medical conditions are encouraged to register with the Office of AccessABILITY for assistance and accommodation. For information and appointment contact the Office of AccessABILITY located in Room E1214 or call (212) 772-4857 /or VRS (646) 755-3129."

3. Hunter College Policy on Sexual Misconduct "In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).

b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link:
<http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

Hunter College of the City University of New York
Chemistry and Biochemistry Department

~ Tentative Syllabus for Chemistry 106~

January 27	Check-In/Safety video Safety Quiz 10 minutes Excel exercise
January 30	What is around us? "Chemistry is LiFe" (Lab 1)
Feb 3	Is volume conserved? "The sneaky ethanol molecules" (Lab 2)
Feb 6	Data Analysis "Up in the air" (Lab 3 Part A)
Feb 10	Data Analysis "Up in the air" (Lab 3 Part B)
Feb 13	What is in my sample? "Let's find the cations (Lab 4 Part A)
Feb20	What is in my sample? "Let's find the cations (Lab 4 Part B)
Feb 24	Molecular models (Lab 5)
Feb 27	VSEPR and molecular shape "How does it look?" (Lab 6)
March 2	How much is a mole? "Avogadro's Number Dilemma" (Lab 7 Part A)
March 5	How much is a mole? "Avogadro's Number Dilemma" (Lab 7 Part B)
March 9	Molecules and reactions "Foiled again" (Lab 8 Part A)
March 12	Molecules and reactions "Foiled again" (Lab 8 Part B)
March 16	Scientific Presentation 1
March 19	Reactants and products – An Online Simulation "I am in equilibrium" (Lab 9)
March 23	Le Châtelier's Principle "Where do I shift?" (Lab 10)
March 26	Acid, bases and Ka "Where is my Lewis pair?" (Lab 11)
March 30	Heartburn and "AUNTY ACID" (Lab 12)
April 2	Drop some acid. Drop some base "I am a little buffer" (Lab 13)
April 6	Acids, bases, salts and buffers "Acids and bases are pHun!!!" (Lab 14)
April 20	Titration curves "Drop the Base" (Lab 15)

April 23	Galvanic cell "LEO the lion goes GER" (Lab 16)
April 27	Calorimetry and Thermochemistry "Stealing Joules"(Lab 17)
April 30	Coffee-Cup Calorimetry <i>"Burning Food. Where are my carbs?"(Lab 18)</i>
May 4	Kinetics Iodine-Clock reaction (Lab 19)
May 7	Kinetics Data, Activation energy (Lab 20)
May 11	Scientific Presentation2
	Check-out

- **Bring your own computer (if you have one) for the labs that are bolded in the syllabus above**

Important Notices:

Whenever in lab, Always Wear the Eye Protection: Goggles or Safety Glasses (points will be deducted from your attendance/class participation score)

Lateness is not tolerated. If you arrive late, you are not allowed to attend the lab. There are **NO Make Ups** for missed labs.