

CHEMISTRY DEPARTMENT
Hunter College, CUNY

CHEM 35100
Biophysical Chemistry Laboratory

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- A. **Description:** This course will cover basic theory and application of a variety of spectroscopic techniques used to determine structure, function and other properties of biological molecules. The course is a laboratory course to give students experience in the designing of experiments, collection of data, data analysis and presentation of results.
- B. **Learning Outcomes:** Upon successful completion of this course, the student will be able to:
- design an experiment with appropriate controls
 - analyze data and determine the statistical significance of the results
 - prepare conclusions from the results
 - present the results and conclusions in appropriate written format.
- C. **Grading Policy:** Your overall letter grade will be based on the total points for the course. The total number of points for this course is 1600. This total will be converted to a percentage (out of 100%) and scaled according to the Hunter College grading system.

7 experiments, reports 200 pts each = 1400 pts;
200 pts class participation.

- D. **Laboratory Policy:** 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 the lab you will not be allowed to complete the experiment. This will count as an absence. NO MAKE-UP LABS.

Hunter College required statements for syllabi

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>

Tentative Syllabus for Biophysical Chemistry Lab

	Check in, safety	
Exp. 1 2 weeks	NMR amino acids	
	2D NMR peptides	
Exp. 2 2 weeks	Fluorescence quantum yield	
	Fluorescence quantum yield	
Exp. 3 2 weeks	Molecular computation	
Exp. 4 2 weeks	FRET peptide modeling	
	FRET Cont.	
Exp. 5 2 weeks	Myoglobin-azide equil., Thermo	
	Hb-azide equil., Thermo	
Exp. 6 2 weeks	Kinetics and Act. Energy	
	Kinetics and Act. Energy	
Exp. 7 2 weeks	Mass spec demo and data	
	Poster Presentations	
	Check out	

There is no assigned textbook. Handouts will be given.

Written lab reports will be required for each experiment and will be due one week after the conclusion of the experiment. Late lab reports will not be accepted. Further information about the nature of the reports will be given for each experiment.