Chem 790.1
Laboratory Techniques for Analytical/Inorganic/Physical Chemistry
Queens College, Spring 2021

Instructors Dr. Jianbo Liu (Lecture)
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Office Hours: Wednesday 5:30 pm - 6:30 pm or by appointment

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Lectures Monday 9:25 am – 11:15 am Zoom

Labs Monday 1:40 pm – 5:30 pm REM 354

Textbook 1) D. A. Skoog, F. J. Holler, and S. R. Crouch, *Principles of Instrumental Analysis*, 7th ed., Cengage Learning, 2017. (Required)

2) J. Travis, and J. Kring, *LabVIEW for Everyone*, 3rd ed., Prentice Hall, 2007

3) PowerPoint slides are available at
http://chem.qc.cuny.edu/~jliu/Liu_page/teaching.htm

Grading Lab reports – 40 %
Presentation – 40%
Take Home Exam – 20%

Others Attendance: It is your responsibility to attend and to be punctual. *Do not come late.* Every unexcused absence will result in a 5% grade penalty. To avoid the penalty, you must obtain the instructor′s permission. No make up for missed laboratory/lecture.

Plagiarism: Any student caught plagiarizing a report from any source will receive a zero on the assignment in question and a warning. The second time that a student is caught will result in the automatic failure of the course.

The exam grades constitute a portion of your total grade. Should anyone fail to take the exam during the scheduled time – regardless of reason – the makeup exam (if approved) would be given on the final exam date of this class.
Approval to take a make-up final will be given if and only if your absence was caused by a university approved reason (i.e., doctor noted sickness or death of a sibling, parent or grandparent) and proof must be provided.

Lecture Schedule for 790.1 in Spring 2021

Date	Meeting	Lecture Topics
Feb 1	1	Topic 1:Instrumentation basics: Signals, noises, and DAQ
Feb 8	2	
Feb 22	3	Topic 2: Mass spectrometry: Principles, techniques and applications
Mar 1	4	
Mar 8	5	
Mar 15	6	Topic 3: Optical instruments and techniques
Mar 22	7	
Apr 5	8	Topic 4: Molecular electronic spectrometry
Apr 12	9	
Apr 19	10	Topic 5: Molecular vibrational spectrometry
Apr 26	11	
May 3	12	Special Topics on mass spectrometry and spectroscopy
May 10	13	
May 17	14	