Cal Poly Pomona, Physics 235L

Instructor: Dr. Nina Abramzon	email:nabramzon@cpp.edu
Office: Building 8 Room 224	Phone: 869-4021
Office Hours: Wed 10:00-11:00 or by appointment	

Course Description: A laboratory course where you will perform experiments that characterized and shaped Modern Physics.

What Students are Expected to Accomplish During this Course:

- To successfully repeat and verify milestone measurements that provided the basis for modern physics.
- To acquire skills in experimental physics and general research using industry standard instrumentation.
- To gain an understanding of the relationship between physical theories and experiment.
- To gain an understanding that the uncertainty is an essential part of any measurement and to gain the skill to quantify and interpret measurement uncertainty
- To develop scientific writing skills.

Requirements:

- Students are required to attend ALL meetings. Absences are not acceptable. Each unexcused absence from a meeting will result in a grade reduction. See the instructor promptly with your excuse should you miss a class session.
- Showing up to class on time shows respect for your colleagues and instructors. You will lose 1% of your final grade for each 10 minutes you are late.
- Each student must turn in a total of 4 lab reports and 1 scientific paper. Each student will write up his/her own laboratory report.
- Reports are due the beginning of lab one week after the experiment is finished. Two 10% will be deducted for each day that the report is late.

Grading for experiments weeks 2,3, 9 (50 points total)
Lab reports (3 Reports): 50 points

Grading for experiment weeks 5-8 (50 points total)
Lab Reports (1 Report) 30 points
Scientific paper 20 points
Description of the write ups are stated in the experiment's handouts.

*Any student who feels s/he may need an accommodation based on the impact of a disability may contact me privately to discuss your specific needs, or may contact Disable Student Services at 9*909-869-3333, Bldg 9, Rm 103 *to coordinate reasonable accommodations for students with documented*

PHY 235L course outline:

Week#	Experiment preformed	Assignment Due
Week 1	Introduction No experiments	
Week 2	Error Analysis	
Week 3	e/m experiment	
Week 4	Electron diffraction and Frank Hertz experiment	Lab report for week 3 experiment
Week 5	Optical Spectroscopy Experiments	Lab report (for week 4 experiment) Pre Lab for week 5 experiments
Week 6	Optical Spectroscopy Experiments	Paper first draft
Week 7	Optical Spectroscopy Experiments	Peer evaluation of paper
Week 8	Optical Spectroscopy Experiments	Paper final draft
Week 9	Radioactive decay experiment	Lab report (for weeks 5-8 experiment)
Week 10	Make up	Lab report for week 9 experiment

Experiments are performed in Building 4 room 3-567.