PHYSICS 47100EF SPRING 2024 (MR408) M 4:00-5:00 (Lab: MR422)

Current version: syllabus.pdf Professor: Mark Shattuck (markdshattuck@gmail.com) Office: Steinman Hall T1M-16 x8161, (MR419) Office Hours: M 2:00-4:00 (MR419) Website: https://gibbs.ccny.cuny.edu/teaching/	Textbooks: An Introduction to Error Analysis, John R. Taylor. Experiments in Modern Physics, Adrian C. Melissinos and Jim Napolitano. Lab Manual: https://gibbs.ccny.cuny.edu/teaching/s2024/labs

1/29	Inevitability of Error (Uncertainty) **T:ch1-2**	
2/5	Error Propagation **T:ch2-3**	**Lab 1 (data only part 1) Due:** (Density of Spaghetti)
2/12	**NO CLASS** (Lab 2: Speed of sound)	**Lab 1 (data only part 2) Due:** (Vibrating Canteliver)
2/22 (TH)	Error Propagation: **T:ch3**	
2/26	Error Propagation: **T:ch3-4** Lab 3: (The Gyroscope)	**Lab 2 Report Due:** (Speed of sound)
2/28 (W)	Systematic and Random Errors **T:ch4**	
3/4	**Class online:** Watch: Probability and Randomness	
3/11	Fitting data: **T:ch6,8**	
3/18	Fitting data: **T:ch8**	**Lab 3 Report Due:** (The Gyroscope)
3/25	Fitting data: **T:ch7-8**	
4/1	Fitting data: **T:ch8**	**Lab 4 Report Due:** (Optical interferometer)
4/8	Correlation and Covariance **T:ch9**	
4/15	Distributions, Histograms, and Normal Distribution: **Tch5**	**Lab 5 Report Due:** (Radioactivity [P2] [Manual] [ST360])
5/6	**Class online**	
5/13		
No Class	**2/12, 2/17, 4/22, 4/29**	
Special Class	**3/4, 5/6 (Class online)**	

General Information

Attendance: Class sessions will focus on discussion of concepts, relevant theory for the experiments. Regular attendance, on-time arrival, and participation in entire class are required. The real work will get done at the lab (MR-422). Attendance of one 3-hour lab session per week is required, and every experiment should be completed in two lab sessions over 2 weeks. Robert Suhoke is in charge of the Lab (suhoke@sci.ccny.cuny.edu). (Online only procedures will be discussed in class.)

Reading Assignment: The text material is covered in the lab description. You should read the corresponding sections in the lab manual before coming to laboratory. You may have to look up relevant textbooks for detailed information on some of the materials.

Grades: Grade will be based on the lab accomplishments, the laboratory reports, and the final exam. To obtain full credits students must submit the report before class time on the due date indicated above. Overdue reports will lose 1 point per week starting at 4p on the due date. A report turned in at 4:01p on the due date will lose 1 point. The reports should be **submitted electronically as a PDF through Blackboard**.

Academic Integrity and Plagiarism: The CCNY Policy on Academic Integrity will be strictly adhered to. The document entitled, "CUNY Policy on Academic Integrity" is available from the link at the bottom of the CCNY Home Page. Make sure you have read the details regarding plagiarism and cheating, and be clear about the rules that the college follows. Cases where academic integrity is compromised will be prosecuted to the fullest extent according to these rules.