

Physics 34201 (342L) - Modern Physics Lab

Version 1.0 - August 28, 2008

Instructor:	Jones
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Title:	Modern Physics Lab
URL:	http://www.physics.purdue.edu/~mjones/phys3421
Offering:	Fall 2008, Class 2, cr. 2.
Prerequisites:	Phys 241, Phys 242/242H
Text:	Lab manual, available from BoilerCopyMaker, PLU: 7588
Description:	Students will conduct some of the most important experiments that have guided our understanding of physics over the past century. In doing so they will develop their ability to collect and analyse experimental data, to interpret their results and to present their findings and conclusions drawn from them in a clear, concise and convincing way.
Grading:	15% – e/m lab report 15% – First lab notebook reading 15% – Photoelectric effect lab report 15% – Second notebook reading 20% – Compton scattering lab report 20% – Final notebook reading

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Proposed schedule:

Week 1	Week of Aug 25	Introduction, propagation of errors, uncertainty
2	Week of Sep 1	Start e/m experiment
3	Week of Sep 8	Finish e/m
4	Week of Sep 15	<i>Hand in e/m lab report</i> Start Stefan-Boltzmann experiment
5	Week of Sep 22	Finish Stefan-Boltzmann experiment
6	Week of Sep 29	Start photoelectric effect experiment
7	Week of Oct 6	Finish photoelectric effect experiment
	Oct 10, 5:00 PM	<i>Hand in lab notebooks</i>
8	Week of Oct 13	October break - no labs
9	Oct 20, 12:00 PM	<i>Hand in Photoelectric effect lab report</i> Start Franck-Hertz experiment
10	Week of Oct 27	Finish Franck-Hertz experiment
11	Week of Nov 3	Start Compton scattering experiment
12	Week of Nov 10	Finish Compton scattering experiment
	Nov 14, 5:00 PM	<i>Hand in lab notebooks</i>
13	Week of Nov 17	Start experiment of your choice
14	Week of Nov 24	Thanksgiving break - no labs
16	Week of Dec 1	Finish experiment of your choice
17	Week of Dec 8	<i>Hand in lab notebooks</i> <i>Hand in Compton scattering report</i>