

# PHYSICS 3310: Modern Physics Laboratory

## Course syllabus: Fall 2012

**Instructor: Prof. Ed Cackett**

**TA: Ed Kramkowski**

Office: Rm 337, Physics

Phone: 577-9355

E-mail: ecackett@wayne.edu

**Meeting times:** Wednesdays, 7:05 - 8:55 pm. Rm 115 Physics Bldg

### Office Hours

M 2 - 3 pm. If you can't make it during regular office hours, please feel free to email me to schedule an appointment at some other day/time.

### Course Description

Hands-on experience in logical and rigorous analysis of phenomena of modern physics.

**Text:** Class handouts

### Lab Data Analysis

Each group of students will complete the required data analysis and submit a spreadsheet report to the instructor by e-mail **before** leaving the lab. *At the discretion of the instructor*, a group may be allowed to complete some of the analysis after class.

### Class Attendance

Class attendance **is** required. Students are expected to actively participate in the laboratory work.

### Grading

The course grade will be based on the best 8 of 9 reports. Students must have attended the lab session to receive credit for the report.

The course grade will be assigned according to the total number of percentage points as follows:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
90-100	85-89	80-84	75-79	70-74	65-69	60-64	55-59	50-54	45-49	40-44	0-39

### Policy on missed work

There are no make-up sessions. The grading scheme, dropping the lowest scored report (or mission session) will accommodate routine illness and personal contingencies.

Generally, if a student is registered for the course a regular grade will be given. A grade of incomplete (I) will be given only in exceptional cases (to accommodate illness or emergency) after consultation with Prof. Cackett before the end of term.

### **Academic dishonesty**

All of the graded assignments are designed to measure your individual understanding of the material. No forms of cheating on these graded assignments will be tolerated (working together on the collecting the data and the data analysis is expected and is of course not considered cheating, but copying someone else's lab report is). Anyone found cheating on any graded activity will receive a grade of zero for that part of their grade, and may receive a failing grade for the course.

### **Student Disability Services**

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-577-3365 (TTY: telecommunication device for the deaf; phone for hearing impaired students only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University.

**Class Schedule** - to be adjusted as needed throughout the semester

<b>Date</b>	<b>PHY 3310 Laboratory</b>
08/29	NO LAB
09/05	Computer Lab 1
09/12	NO LAB
09/19	Thermal Radiation
09/26	Computer Lab 2
10/03	Photo-electric effect
10/10	Electron diffraction (Davisson-Germer expt.)
10/17	NO LAB
10/24	NO LAB
10/31	Electron $q/m$ (Thomson expt)
11/07	Franck-Hertz expt
11/14	NO LAB
11/21	NO LAB (Thanksgiving)
11/28	Balmer spectrum
12/05	Radioactivity