

COURSE SYLLABUS

I. CATALOG DESCRIPTION

PHYS 142 Physics II Laboratory-C

0c-31-1cr

Corequisite: · PHYS 132

Physics laboratory at the level of Physics II; exercises in mechanics, wave motion, and sound.

II. COURSE OBJECTIVES

Students will demonstrate laboratory techniques such as graphing, error analysis, and other measuring techniques. The laboratory will demonstrate to students the role of direct observation in physics and to distinguish between inferences based on theory and the outcomes of experiments. Students will also use methods for estimating and dealing with experimental uncertainties, including simple ideas in probability theory and the distinctions between random and systematic errors.

V. GRADING SCALE

Score			Grade
100 %	to	90%	A
89%	to	80%	B
79%	to	70%	C
69%	to	60%	D
Less than		60%	F

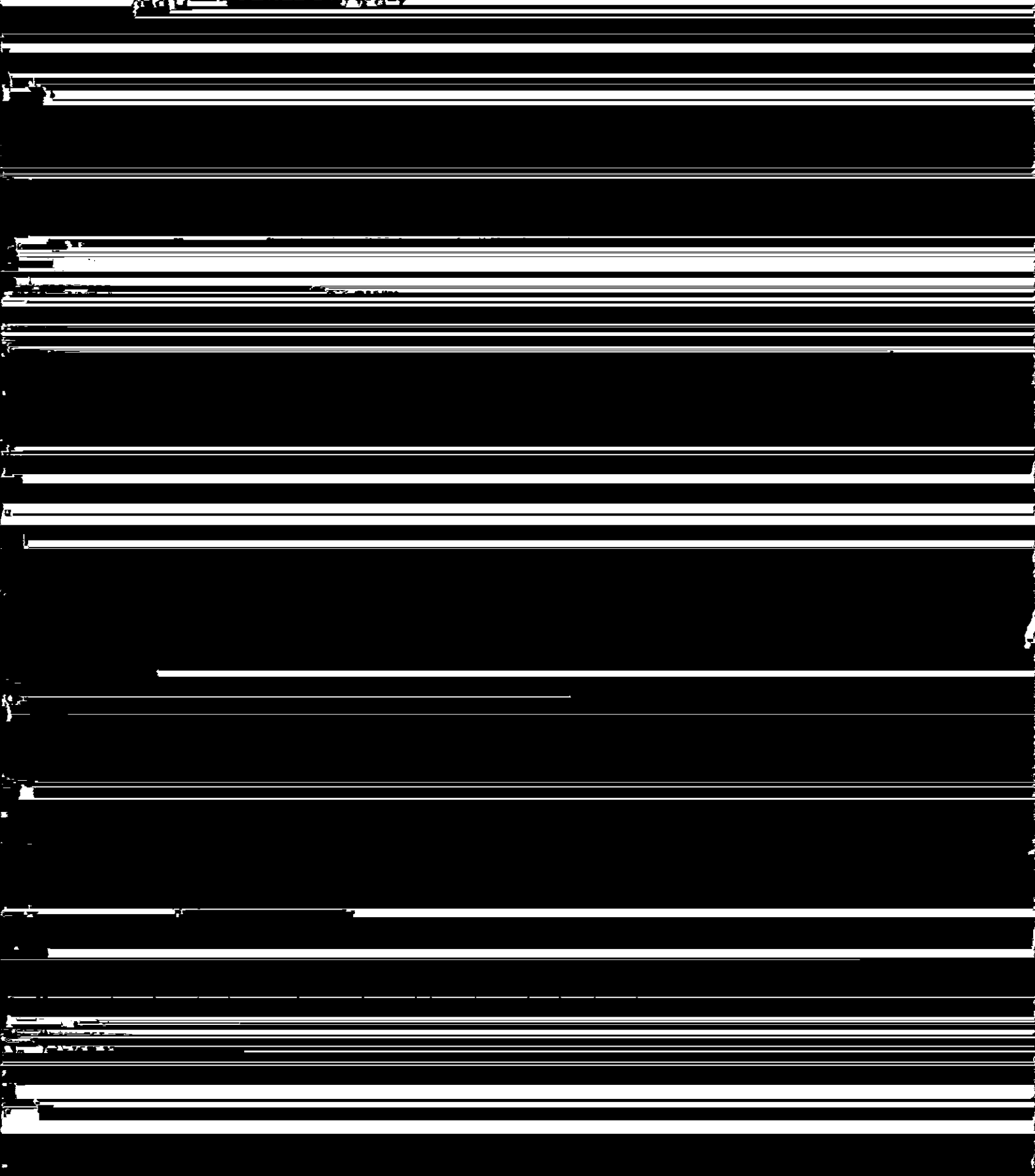
VI. ATTENDANCE POLICY

Students are expected to attend all labs. Individual faculty members assigned to this course will determine the specific attendance requirements for this course. In certain situations, such as illness, personal emergency or active military duty, students will be excused for missing class if a written excuse or other proof of absence is provided to the instructor. Individual faculty members will determine how the assignments or other work will be made up in the event of an excused absence. Course attendance policy

Liberal Studies Course Approval General Information
On a separate sheet of paper, please answer these questions

Sample Assessment

Scoring rubric - each correct answer is worth one point, for a total of eight points



OLD COURSE SYLLABUS

CATALOG DESCRIPTION

PHYS 122 / PHYS 142 Physics I Laboratory

1 credit

3 lab hours

0c-11-1cr

Corequisite: PHYS 112 / PHYS 132

Physics laboratory at the level of Physics I; exercises in mechanics, wave motion, and sound.

II. COURSE OBJECTIVES

Basic training in laboratory techniques such as graphing, error analysis, etc.

III. COURSE OUTLINE

Laboratory exercises (one experiment each week)

1. Intro to D.C. circuits
2. Null method of measurement
3. Electrical measurements
4. The oscilloscope and its applications
5. Exponential functions and servo systems
6. Capacitors, Inductors
7. Non-linear circuit elements
8. RCL circuits
9. Intro to nuclear counting
10. Linear amplification
11. Measurement of radioactivity
12. Spectroscopic analysis of atomic emission spectra
13. Optical phenomena

IV. EVALUATION METHODS

The final grade for the course will be determined as follows:

50% laboratory reports

40% weekly quizzes or pre-lab questions

Quizzes will be at a level appropriate for a calculus based presentation

10% subjective evaluation

V. REQUIRED TEXTBOOKS, SUPPLEMENTAL BOOKS AND READINGS

Laboratory manual written by several members of the Physics Department.

Supplement to the lab manual provided for this course which is calculus based sections.