



GENERAL PHYSICS LAB 2 (PHYS 112)

Course Outline

First Semester 2022/2023

Coordinator: Zafer Hawash

Introduction:

In this course you will learn how to use electrical devices such as power supplies, digital multi-meters, signal generators and oscilloscopes. You will also learn how to connect electrical circuits, take measurements and analyze these measurements to verify a certain law or deduce a certain relationship between measured quantities.

Grade Distribution:

Reports	45% (total of 10 reports)
Quizzes and evaluation	10%
Final exam	30%
Practical exam	15%

Note:

- 1) Copying from previous reports will be considered as cheating and a grade of zero may be given to the student in this case.
- 2) Students have to work independent of each other when analyzing their data and a grade of zero will be given to students who copy the analysis and results of their partners.

Schedule:

Meeting	Experiment No	Experiment Name
1	Introduction Review I	The Theory of Error Analysis, the Nature of Experimentation, and Direct Current Circuits
2	1	Linear and Non-Linear Circuit Elements
3	2	Source Internal Resistance, Loading Problems, and Circuit Impedance Matching
4	3	Network Analysis I: The Superposition Principle and Kirchhoff's Laws
5	4	Network Analysis II: The Thevenin and Norton Techniques
6	5	Digital Storage Oscilloscope (DSO)
7	6	Capacitors and Inductors
8	7	Damped Oscillations
9	8	Impedance and Reactance
10	9	Resonance
11	10	Filters