GENERAL PHYSICS LAB 2 (PHYS 112)

Course Outline **Second Semester 2023/2024**

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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 9 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 may be given to students who copy the analysis and results of their partners.
3) Your report must be submitted before next lab session. A delayed submission may not be accepted or may lead to a reduction in grade, with a possible maximum grade of 50%.

Schedule:

Meeting	Experiment No	Experiment Name
1		General introduction and outline
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
7	6	Capacitors and Inductors
8	7	Damped Oscillations
9	8	Impedance and Reactance
10	9	Resonance
11	10	Filters
12	**Practical exam**	