

PHYSICS 228L
ELECTRONICS LABORATORY
(0.3; 1 credit)

Manual: Experiments in Electronics, Instrumentation and Microcomputers.
By: Holler, Avery, Crouch and Enke.

Experiments:

1. Introduction to the breadboard frame and DC measurements using the DMM.
2. Periodic waveforms : AC measurement with the DMM and the oscilloscope.
3. Power supplies : diode characteristics, rectifier circuits, filters, regulation, the Zener diode.
- 4 Operational amplifiers: inverting and non inverting amplifiers, the integrator and the differentiator, Op Amp characteristics.
5. Frequency and Period measurements : basic digital gates, counters, latch and display, investigation of some common transducers.
6. The 555 timer and multivibrators.

N.B. Pre- or co-requisite: **Physics 228.**