



Code	Subject Title	Cr. Hrs	Semester
PHY-312	Physics Lab-IV (Electronics)	4	VI
Year	Discipline		
3	Physics		

The students will have to perform at least EIGHT experiments from the list given below:

1. Design a full-wave rectifier and study its output without and with a capacitor filter.
2. Design a full-wave rectifier and study its output with a π -filter.
3. Design a regulated power supply using Zener diode and study its regulation.
4. Design clipper and clamping circuits and study the output waveshapes.
5. Design circuits for logic gates (NOT, OR, NOR, AND, NAND, XOR) using discrete components.
6. Design differentiator and integrator circuits and study output waveshapes.
7. Design a CE amplifier and study its frequency response. Determine its low- and upper-limit frequencies and also the bandwidth.
8. Design an emitter amplifier and determine its input and output impedance.
9. Design an RC phase-shift oscillator and determine its frequency by Lissajous figures.
10. Design an astable multivibrator and determine its frequency.
11. Design a transformer-coupled class A power amplifier and determine its ac power delivered to the load and percent efficiency.