COURSE TITLE	**: BASIC ELECTRONICS LAB**
COURSE CODE	**: 2049**
COURSE CATEGORY	**: B**
PERIODS/WEEK	**: 3**
PERIODS/YEAR	**: 45**
CREDITS	**: 2**

LIST OF EXPERIMENTS

Upon completion the students will be able:

1. To identify passive components - resistors, capacitors, inductors, transformers and LED and familiarize breadboards
2. To identify various types of electronic instruments - ammeters, voltmeters, multimeters (analog and digital), function generators, power supply and CRO
3. To measure the amplitude, time period and frequency values of a sine wave using CRO
4. To measure voltage at various settings (low and high voltage) of regulated Power supply by using analog and digital multimeters
5. To measure resistane of resistors using multimeters and compare it with colour code value
6. To test an electrolytic capacitor using a multimeter
7. To identify the package type, terminals and characteristic ratings of various types of diodes using data sheet
8. To test a diode using a multimeter
9. To plot VI characteristics of a silicon diode (forward and reverse) and determine the static and dynamic resistances and knee voltage
10. To plot VI characteristics of a germanium diode (forward) and determine the static and dynamic resistances and knee voltage
11. To plot VI characteristics of a zener diode (reverse) and determine the breakdown voltage
12. To setup of a half wave rectifier with and without filter and plot the input / output voltages and calculate the ripple factor
13. To setup of a centre tapped rectifier with and without filter and plot the input / output voltages and calculate the ripple factor
14. To setup of a bridge rectifier with and without filter and plot the input / output voltages and calculate the ripple factor
15. To setup a voltage regulator using zener diode and plot the regulation characteristics
16. To construct a voltage doubler (half-wave and full wave) and measure the output
17. To construct a voltage tripler and measure the output
18. To setup different slicer circuits (clipper) and plot the output
19. To setup different level shifting circuits (clamper) and plot the output
20. To identify the package type, terminals and characteristic ratings of various types of transistors using data sheet
21. To test transistors using multimeter
22. To plot the input and output characteristics for a transistor in common emitter configuration and determine current gain, input and output resistance