	College of Engineering and Technology
	Department of Mechanical Engineering
	Lesson Plan

COURSE CODE: ME-217

COURSE NAME: Electronics Engineering

INSTRUCTOR: Engr. Huma Iqbal

CREDIT HOURS:

Theory	=	0
Practical	=	1
Total	=	1

CONTACT HOURS:

Theory	=	0
Practical	=	48
Total	=	48

RELEVANT PROGRAM LEARNING OUTCOMES (PLOs):

The course is designed so that students achieve following PLOs:

1 Engineering Knowledge:
2 Problem Analysis:
3 Design/Development of Solutions:
4 Investigation:
5 Modern Tool Usage:
6 The Engineer and Society:
7 Environment and Sustainability:
8 Ethics:
9 Individual and Team Work:
10 Communication:
11 Project Management:
12 Lifelong Learning:

COURSE LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to:

No.	Domain	Description
CLO-1	C2	Describe the knowledge based on lab experiments related to Lab Equipments and Different Semiconductor devices.
CLO-2	P3	Construct and Analyze (characteristics, applications) different electronic devices like diodes, BJTs, FETs, MOSFETs using hardware and Multisim software.
CLO-3	A2	Respond individuality or as a team.

Mapping of CLO's to PLO's:

Course outcomes	Program learning outcomes (PLO's)											
	1	2	3	4	5	6	7	8	9	10	11	12
CLO-1	■											
CLO-2		■			■							
CLO-3									■			

Assessment Rubrics:

Performance	Exceeds Expectation (5-4)	Meet Expectations (3-2)	Does not meet Expectation (1)
1. Realization of Experiment	Selects relevant equipment to the experiment, develops setup diagrams of equipment connections or wiring.	Needs guidance to select relevant equipment to the experiment and to develop equipment connection or wiring diagrams.	Incapable of selecting relevant equipment to conduct the experiment, equipment connection or wiring diagrams are unrecognizable.
2. Teamwork	Actively engages and cooperates with other group members in an effective manner.	Cooperates with other group members in a reasonable manner.	Distracts or discourages other group members from conducting the experiment.
3. Conducting Experiment	Does proper calibration of equipment, carefully examines equipment moving parts, and ensures smooth operation and process.	Calibrate equipment, examine equipment moving parts and operate the equipment with minor errors	Unable to calibrate appropriate equipment and equipment operation is substantially wrong
4. Laboratory Safety Rules	Respectfully and carefully observes safety rules and procedures	Observes safety rules and procedures with minor deviation.	Disregards safety rules and procedures.
5. Data collection and Analysis	Plans data collection to achieve experimental objectives and a complete data collection. Conducts simple computations and statistical analysis using collected data.	Plans data collection to achieve experimental objectives and a complete data collection with minor error. Conducts simple computations and statistical analysis using collected data with minor error.	Does not know how to plan Data collection to achieve experimental goals and statistical analysis on collected data