



MUTAH UNIVERSITY
Faculty of Engineering
Department of Electrical Engineering



Course Syllabus

Course Code	Course Name	Credits	Contact Hours
0401368	Electronics Lab.	1	2T

INSTRUCTOR/COORDINATOR	
Name	Prof. Dr. Mustafa Muheilan
Email/Office	muheilan@mutah.edu.jo / Eng. Bldg.
Office Hours	12:00-1:00 Tues
Classroom/Time	14:00-16.00Tues

TEXTBOOK	
Title	Laboratory Manual for Electronics Laboratory
Author/Year/Edition	
Other Supplemental Materials	
Title	Fundamentals of Electric Circuits
Author/Year/Edition	Charles K. Alexander, Matthew N.O. Sadiku, McGraw Hill/2012/ 5 th Ed

SPECIFIC COURSE INFORMATION
A. Brief Description of the Content of the Course (Catalog Description)
Make the students able to work with: Diode characteristics, Rectifiers and Zener diodes, BJT AMPLIFIERS, Common base BJT, Common Emitter BJT, Common collector, JFET Transistors, INVERTING AND NON-INVERTING AMPLIFIER USING OPAMP.
B. Pre-requisites (P) or Co-requisites (C)
Electrical Circuits & Filters LAB. (0401219) (P) Electronics (2) (0401362) (C)
C. Course Type (Required or Elective)
Required
SPECIFIC GOALS

A. Course Learning Objectives (CLOs)

CLO1: Measure diode characteristics such as current voltage and power, and experimentally verify the result for a variety of electrical circuits [6].

CLO2: Analyze circuits using a diodes to predict or describe circuit behavior [6].

CLO3: Work effectively in groups by sharing responsibilities and collaborating on findings [5]

B. Student Learning Outcomes (SOs) Addressed by the Course

1	2	3	4	5	6	7
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BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
Experiment 1: Diode characteristics	2	4
Experiment2: A-Rectifiers, B-Zener diodes	2	4
Experiment3: BJT AMPLIFIERS	2	4
Experiment4: Common base BJT	2	4
Experiment5: Common Emitter BJT	1	2
Experiment6: <i>Common collector</i>	1	2
Experiment7: <i>JFET Transistors</i>	2	4
Experiment8: INVERTING AND NON- INVERTING AMPLIFIER USING OP.AMP.	2	4
<i>Total</i>	<i>14</i>	<i>28</i>

EVALUATION

Assessment Tool	Due Date	Weight (%)
Mid Exam	According to the university calendar	20
Lab Reports	One week after being taken	40
Final Exam	According to the university calendar	40

ABET's Students Learning Outcomes (Criterion # 3)

Relationship to program outcomes	
ABET 1-7	Engineering Student Outcomes

1		an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2		an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3		an ability to communicate effectively with a range of audiences.
4		an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5	√	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6	√	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7		an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.