

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Analog Electronics Lab
Course number	PHYS3125
Faculty	
Department	
Course type	Major Needs
Course level	3
Credit hours (theoretical)	1
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

- 1 - Familiarity with the use of modern scientific equipment
- 2 - Familiarity with the use of specialized experimental techniques
- 3 - The ability to communicate clearly , readably , and concisely the results and essentials features of an experiment
- 4 - The experiment of Ohms law is used to calculate of un known resistance
- 5 - The experiment of series connection of resistances is used to prove the total resistances equal the sum of all resistances
- 6 - The experiment of parallel connection of resistances is used to prove the total resistances equal the sum of all resistances
- 7 - The experiment is used to study diode characteristics
- 8 - The experment is used to study how to rectify alternating current by using half wave and full wave circuits
- 9 - The experiment is used to study transistor characteristics
- 10 - The experiment is used to study the emitter and fixed bias circuits
- 11 - The experiment is used to study the voltage divider circuits
- 12 - The experiment is used to amplify voltage and current by using amplifire circuit

Course Contents

- 1 - Diode characteris tics, half and full wave rectification and with filter, Zener diode, Transistor characteristics, fixed and emitter bias circuits, voltage divider circuit, Amplifier and its frequency response, FET characteristics

Teaching and Learning Methods

- 1 - lab techniques

Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
lab Reports		40
attendance		20
final Exam		40

Books and References

Course note	Electronic Circuits Lab Manual, Hassan Ashour, 2016
-------------	---