



Department of General science

College of Basic Education

University of salahaddin Subject : General physics/theoretical

Course book : (1)

Lecture Name : Msc / Hassan Jalal Aziz

Academic Year : 2020 -2021

Directorate of Quality Assurance and Accreditation **بەڕێوەبەرایەتی دڵنیایی جۆری و متمانەبەخشین**

Course Book 2020-2021

Course name	Electric: first semester
Teacher name	Hassan Jalal Aziz
Department/Collage	G science [Basic Education
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Course overview:	This course is specialized with learning Electric force. coulombs law , electric fields, electric potential current and types of current , relation between currents and resistance , capacitance.
Course objective:	

To learning students, the principle of electric charge and their types, and properties of charges particle, therefore the electricity have more effect on the all fields in the life, such as instrument in the practical fields (laboratory. medical , homes-----etc), this course contain electric force,fields ,properties and have practical.

Learning methods

1/ Data show — power point 2/ White board
3/ written

Course References

1/ Lessons in electric circuits , volume I I—Ac by Tony R. Kaphaldt , sixth Edition ,
2/ Lessons in electric circuits , volume 1 DC by Tony R. Kaphaldt , Fifth Edition
3/ Hand book of physics By Walter benenson , Johr W. Harris , Horst stocker , Holger L'*ts Qc61.H37 2001
4/ Collage of Physics book .
5- University physic with modern physics , HugH D. Young RogeR A. FReeDmAn University of California, Santa Barbara . 2016

Lecture Schedules

Content of course

Sunday stage / 2

8:30 -10:30 group A
10:30-12:30 group B

Ranks distribution

Semester	Practical degree %	Theory		
1 semester	15	25		40%
Final Exam	20%	+ 40 %		60% +
Total 100%	35%	65%		100%

Example

Q1: Prove only one

1/ By Joules law $\frac{dH}{dt}$ a i^2 of R is kept constant .

$$2/ C = \frac{E_0 A}{d}$$

Q2: Define the following current (I) , Colombes law , gravitational force (Fg) .

Q3: A capper conductor wire of lcm diameter , 100 m long in which a current of 200 Amp of the resistivity of capper is $\rho = 1.75 \times 10^{-8} \text{ Q.m}$ find (a) The electric intensity ? of the capper .

(b) The potential difference between its terminals V= ?

First semester electricity

1- What is electric, and types of electric charge and their properties . (2 هه فته)

- 2- Electric force and coulomb's law, electric fields and electric field lines with motion of charges particle in a uniform electric field.(
(2 هه فته)
- 3- Electrical energy and Capacitance (3 هه فته)
- 4- Current and Resistance (3 هه فته)
- 5- Direct _ Current Circuits (3 هه فته)
- 6- -AC Circuits (2 هه فته)