



Flow up of
implementation
syllabus

University: Thi - Qar
College: Pure science
Department: Physics
Stage: Forth
Lecturer name: Prof. Dr. Samer Mahdi
Academic Status: Prof Dr
Qualification:
Place of work: College for pure Science

Course Instructor	Prof. Dr. Samer Mahdi Abdulmohsin				
E_mail	Samer.mahdi75@gmail.com				
Title	Electromagnetism				
Course Coordinator					
Course Objective	To give the student a broad introduction to fundamental laws and relations in electricity, electromagnetism and electric circuits.				
Course Description	This course develops concepts in electric field and scalar potential, magnetic field and vector potential, Maxwell's equations, electromagnetic boundary conditions, electromagnetic wave equation, waveguides, energy in electromagnetism. Electromagnetic wave propagation in vacuum, conducting and dielectric media, and at interfaces				
Textbook	1. Introduction in Electrodynamics : David G. Griffith Classical Electrodynamics : John David Jackson				
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
	40	-	10	-	50
General Notes					

Mahdi



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Course weekly Outline

week	Date		Lab. Experiment Assignments	Notes
1	17/9/2023	Electrostatics		
2	24/9/2023	Divergence and curl of Electrostatic field		
3	01/10/2023	Application of Gauss Law		
4	08/10/2023	The Curl of Electric field		
5	15/10/2023	Poisson Equation		
6	22/10/2023	Boundary condition		
7	29/10/2023	Find magnetic and electric potential in spherical coordinate		
8	05/11/2023	Maxwell Equations		
9	12/11/2023	Magnetic field		
10	19/11/2023	Field lines, flux, and Gauss Law		
11	26/11/2023	Spherical symmetry Cylindrical symmetry		
12	03/12/2023	Electrostatic potential		
13	10/12/2023	Laplace Equation		
14	17/12/2023	Divergence theory		
15	24/1/2023	Exams		
16	31/1/2023	Exams		

Half-year Break



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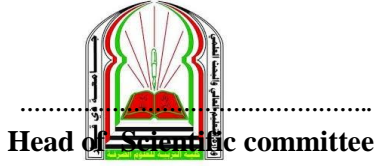
17	28/1/2024	The energy of a point charge distribution The mirror methods of force and potential		
18	04/2/2024	Electromagnetic wave		
19	11/2/2024	Legendre polynomials		
20	18/2/2024	Spherical coordinate for mirror method potential		
21	25/2/2024	Separation of variable spherical coordinate		
22	03/3/2024	Origion of Diamagnetism		
23	10/3/2024	Origion of Para magnetism		
24	17/3/2024	Theory of Ferromagnetism		
25	24/3/2024	Ferromagnetic Domains		
26	31/3/2024			
27	07/4/2024			
28	14/4/2024			
29	21/4/2024			
30	28/4/2024			
31	05/5/2024			
32	12/6/2024	Exams		

تؤيد اللجنة العلمية مطابقة الخطة التدريسية لمفردات منهج المادة الدراسية

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Instructor Signature(Lab.)

.....
Instructor Signature(Theoretical)

Republic of Iraq
The Ministry of Higher Education
& Scientific Research
1st Scientific committee member
2024-2023



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