

Republic of Iraq

The Ministry Of Higher
Education

& Scientific Research

بسم الله الرحمن الرحيم



University: Diyala
College: Agriculture
Department: Soil Science and
Water Resources
Stage: FIRST
Name: Ali Kadhim Ahmed
Academic Status: Lecturer
Qualification: PhD.
Place of work: College Of
Agriculture

Flow up of implementation celli pass play

Course Instructor	Ali Kadhim Ahmed				
E-mail	alikaahdim@uodiyala.edu.iq				
Title	General Physics				
Course Coordinator	The first course.				
Course Objective	<ul style="list-style-type: none">- The science of General Physics investigates the natural states of matter, the general properties of matter, the mechanical properties of matter.- Introducing the student to the assumptions of kinetic theory, molecular dimensions and distances, Brownian motion- Introduce students to Boyle's law, compressibility and flexibility- The student got acquainted with water: its molecular structure, its hydrogen bonding, and its properties as a solvent.- Study of the concept of viscosity, Newton's law of viscosity- Identification of optical devices, X-rays.				
Course Description	States of matter, mechanical properties of matter , thermal properties of matter , mechanics ,water and water States .				
Textbook	Daniel Shum: shum abstracts series theories and problems in University physics - Dr.Rahim abdukkattal: University physics P1 mechanics and properties of matter - wave motion and heat				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	20%	15%	5%	% 10	% 50
General Notes					

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week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	14/11/2023	Natural states of matter, general properties of matter, mechanical properties of matter	Measuring devices	
2	21/11/2023	Propositions of kinetic theory, molecular dimensions and interface distances, brownian motion	The experiment of finding ground acceleration using a simple pendulum	
3	28/11/2023	Molecular velocities, molecular forces, collisions between molecules, thermal properties of matter	Finding the density of solid objects (Non-hollow)	
4	5/12/2023	Boyle's law, compressibility and elasticity	Finding the density of hollow objects	
5	12/12/2023	Mechanics: laws of force and motion, laws of motion in one dimension, free fall of objects	The experiment of finding the surface tensile coefficient by the capillary tube method	
6	19/12/2023	About Newton's laws of motion: the first law of motion, the second law of motion, Newton's law of general attraction	The experiment of finding the surface tensile modulus by the gaker method	
7	26/12/2023	Water: its molecular structure, its hydrogen isotropy, and its properties as a solvent	Experiment with finding relative humidity using a humidifier (with wet and dry editors)	
8	9/1/2024	Surface tensile strength, seam angle, capillary property	Experiment with finding the mixing ratio of water vapor in the air	
9	16/1/2024	Diffusion, osmotic phenomenon	Experiment of finding the refractive index of a glass material for a triple prism using a spectrometer	
10	23/1/2024	Viscosity, Newton's law of viscosity	The experiment of finding the internal resistance and electromotive force of an electric cell	
11	30/1/2024	Fluid flow, fluid pressure, Boiselle's law	Atmospheric pressure measurement experiment using Boyle's law	
12	6/2/2024	Stoke's law, its derivation and applications	The experiment of finding the viscosity of water by the flow method	
13	13/2/2024	Volumetric and weight relations, body density, porosity, surface area and quality	The experiment of finding the speed of sound in the air	
14	13/2/2024	Optical devices, X-rays	General review	

Dean Signature:

15 / 1 / 2025

Dr. Ali Kadhim Ahmed
Instructor Signature :

15 / 1 2025