Rancangan Pengajaran Semester 1
Sistem Dua Semester Sesi 2024/2025
SP015 Physics 1
Unit Fizik
Kolej Matrikulasi Sarawak

Week	Date	Lecture	Tutorial	Practical	Assessment	Remarks
1	08/07/2024 - 12/07/2024	1: Physical Quantities And Measurements	1.1: Dimensions Of Physical Quantities 1.2: Scalars And Vectors 1.3: Significant Figures And Uncertainties Analysis			Awal Muharram (8 Jul)
2	15/07/2024 - 19/07/2024	2: Kinematics Of Motions	2.1: Linear Motion 2.2: Uniformly Accelerated Motion	Exp 0: Introduction to Laboratory Skills and Safety		
3	22/07/2024 - 26/07/2024	3: Dynamics Of Linear Motion	2.2: Uniformly Accelerated Motion 2.3: Projectile Motion	Exp 1: Measurement and Uncertainty		Sarawak Day (22 Jul)
4	29/07/2024 - 02/08/2024	3: Dynamics Of Linear Motion	3.1: Momentum And Impulse 3.2: Conservation Of Linear Momentum	Exp 2: Free Fall and Projectile Motion		
5	05/08/2024 - 09/08/2024	4: Work, Energy And Power	3.3: Basic Of Forces And Free Body Diagram 3.4: Newton's Laws Of Motion			
6	12/08/2024 - 16/08/2024	4: Work, Energy And Power	4.1: Work 4.2: Energy And Conservation Of Energy	Exp 3: Energy		
7	19/08/2024 - 23/08/2024	5: Circular Motion	4.3: Power	Exp 4: Rotational Motion of Rigid Body	UPS1	
8	26/08/2024 - 30/08/2024	5: Circular Motion	5.1: Parameters In Circular Motion 5.2: Uniform Circular Motion 5.3: Centripetal Force			National Day (31 Aug)
9	02/09/2024 - 06/09/2024	6: Rotation Of Rigid Body	6.1: Rotational Kinematics 6.2: Equilibrium Of A Uniform Rigid Body	Exp 5: Simple Harmonic Motion	Assignment Handout (6 Sept 2024)	
10	09/09/2024 - 13/09/2024	6: Rotation Of Rigid Body	6.3: Rotational Dynamics 6.4: Conservation Of Angular Momentum	Exp 6: Standing Waves		
15/09/2024 - 21/09/2024		**Cuti Pertengahan Semester**				Malaysia Day & Prophet Birthday (16 Sept)
11	22/09/2024 - 26/09/2024	7: Oscillations And Waves	7.1: Kinematics Of Simple Harmonic Motion 7.2: Graphs Of Simple Harmonic Motion 7.3: Period Of Simple Harmonic Motion		UPS2 Assignment Submission (22 Sept 2024)	
12	29/09/2024 - 03/10/2024	7: Oscillations And Waves	7.4: Properties Of Waves 7.5: Superposition Of Waves		Lab Test (Group A)	
13	06/10/2024 - 10/10/2024	7: Oscillations And Waves	7.6: Application Of Standing Waves		Lab Test (Group B)	
14	13/10/2024 - 17/10/2024	8: Physics Of Matter	7.7: Doppler Effect			
15	20/10/2024 - 24/10/2024	8: Physics Of Matter	8.1: Stress And Strain 8.2: Young's Modulus		UPS3	
16	27/10/2024 - 31/10/2024	9: Kinetic Theory Of Gases And Thermodynamics	8.3: Heat Conduction 8.4: Thermal Expansion			Deepavali (31 Oct)
17	03/11/2024 - 07/11/2024	9: Kinetic Theory Of Gases And Thermodynamics	9.1: Kinetic Theory Of Gases 9.2: Molecular Kinetic Energy And Internal Energy			
18	10/11/2024 - 14/11/2024	9: Kinetic Theory Of Gases And Thermodynamics	9.3: First Law Of Thermodynamics 9.4: Thermodynamic Processes 9.5: Thermodynamic Work			
16/11/2024 - 24/11/2024		**Revision Week**				
25/11/2024 - 2/12/2024		**PSPM 1**				
03/12/2024 - 08/12/2024		**Cuti Antara Semester**				

Disediakan oleh,

(MARY GWADOLINE YUSUS)
Ketua Unit Fizik

Disahkan oleh,

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Ketua Jabatan Sains

Rancangan Pengajaran Semester 2
Sistem Dua Semester Sesi 2024/2025
SP025 Physics 2
Unit Fizik
Kolej Matrikulasi Sarawak

Week	Date	Lecture	Tutorial	Practical	Assessment	Remarks
1	09/12/2024 - 13/12/2024	1: ELECTROSTATICS	1.1: Coulomb's Law 1.2: Electric field 1.3: Electric potential			
2	16/12/2024 - 20/12/2024	1: ELECTROSTATICS	1.4: Charge in a uniform electric field 2.1: Capacitance and capacitors in series and parallel 2.2: Charging and discharging capacitors	Exp 1: Capacitor		
Cuti Khas Semester, (21/12/2024 - 29/12/2024)						
3	30/12/2024 - 03/01/2025	2: CAPACITORS AND DIELECTRICS	2.3: Capacitors with dielectrics 2.3: Capacitors with dielectrics 3.1: Electrical current	Exp 2: Ohm's Law		
4	06/01/2025 - 10/01/2025	2: CAPACITORS AND DIELECTRICS	3.2: Ohm's Law and resistivity 3.3: Variation of resistance with temperature 3.4: Electromotive force (emf), internal resistance and potential difference			
5	13/01/2025 - 17/01/2025	3: ELECTRIC CURRENT AND DIRECT CURRENT CIRCUITS	3.5: Resistors in series and parallel 3.6: Kirchhoff's Rules 3.6: Kirchhoff's Rules	Exp 3: Potentiometer		
6	20/01/2025 - 24/01/2025	3: ELECTRIC CURRENT AND DIRECT CURRENT CIRCUITS	3.7: Electrical energy and power 3.8: Potential divider 3.9: Potentiometer			
Cuti Pertengahan Semester (1), (25/1/2025 - 2/2/2025)						
7	03/02/2025 - 07/02/2025	4: MAGNETISM	3.9: Potentiometer 4.1: Magnetic field 4.2: Resultant magnetic field produced by current-carrying conductor	Exp 4: Magnetic Field	**UPS1**	
8	10/02/2025 - 14/02/2025	4: MAGNETISM	4.3: Force on a moving charged particle in a uniform magnetic field 4.4: Force on a current carrying conductor in a uniform magnetic field 4.5: Forces between two parallel current-carrying conductors			
9	17/02/2025 - 21/02/2025	5: ELECTROMAGNETIC INDUCTION	4.5: Forces between two parallel current-carrying conductors 4.6: Application of motion of charged particle 5.1: Magnetic flux	Exp 5: Geometrical Optics	**Individual Assignment (TOPIC 4)**	
10	24/02/2025 - 28/02/2025	5: ELECTROMAGNETIC INDUCTION	5.2: Induced emf 5.2: Induced emf 5.3: Self-inductance			
11	03/03/2025 - 07/03/2025	6: ALTERNATING CURRENT	5.4: Energy stored in inductor 5.5: Mutual inductance 6.1: Alternating current	Exp 6: Diffraction Grating		
12	10/03/2025 - 14/03/2025	6: ALTERNATING CURRENT	6.2: Root mean square (rms) 6.3: Resistance, reactance and impedance 6.3: Resistance, reactance and impedance		**UPS2**	
13	17/03/2025 - 21/03/2025	7: OPTICS	6.4: Power and power factor 7.1: Reflection at a spherical surface 7.2: Refraction at a spherical surface		**Practical Test**	
14	24/03/2025 - 28/03/2025	7: OPTICS	7.3: Thin lenses 7.4: Huygen's Principle 7.5: Constructive and destructive interferences		**Practical Test**	
Cuti Pertengahan Semester (2), (29/3/2025 - 6/4/2025)						
15	07/04/2025 - 11/04/2025	7: OPTICS	7.6: Interference of transmitted light through double-slits 7.6: Interference of transmitted light through double-slits 7.7: Interference of reflected light in thin films			
16	14/04/2025 - 18/04/2025	8: WAVE PROPERTIES OF PARTICLE	7.7: Interference of reflected light in thin films 7.8: Diffraction by a single slit 7.9: Diffraction grating		**UPS3**	**Good Friday 18/4/2025**
17	21/04/2025 - 25/04/2025	9: NUCLEAR AND PARTICLE PHYSICS	8.1: de Broglie wavelength 8.2: Electron diffraction 9.1: Binding energy and mass defect			
18	28/04/2025 - 02/05/2025	9: NUCLEAR AND PARTICLE PHYSICS	9.2: Radioactivity 9.3: Particle accelerator 9.4: Fundamental particle			
3/5/2025 - 12/5/2025		**Revision Week**				
13/5/2025 - 20/5/2025		**PSPM 2**				
Tamat Sesi 2024/2025						

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