



AP PHYSICS 2 COURSE- SESSION PLAN

LESSON NO	TOPICS
LESSON 1	Discussion of the structure of the test and test taking strategies. FLUIDS: Properties of fluids—gases and liquids, Hydrostatic Pressure and Pascal's Principle, Buoyancy (Archimedes' Principle), Fluid Flow Continuity (Conservation of Mass), Conservation of Energy and Bernoulli's Principle.
LESSON 2	UNIT 2: THERMODYNAMICS: Temperature, Pressure, Heat/Energy Transfer, Ideal gases Kinetic Theory Laws of Thermodynamics LO 5.B.7.1 Entropy PV Diagrams Probability and Thermal Equilibrium +Discussion of Homeworks
LESSON 3	UNIT 3: ELECTRICITY AND MAGNETISM: Elementary Charges and Fundamental Particles Charging and Redistribution of Charge Electric Force (Coulomb's Law) and Electric Field Electric Potential, Potential Difference, and Potential Energy Equipotentials, Electric Dipoles
LESSON 4	UNIT 3: Electric Current Simple DC Circuits (Ohm's Law/ Kirchhoff's Laws) Steady-State RC Circuits Magnetism and Sources of Magnetic Fields Magnetic Forces Charged Particles Moving in Magnetic Fields
LESSON 5	UNIT 3: Electromagnetic Induction (Faraday and Lenz's Laws) AC Circuits (introduction with transformers and other practical applications)
LESSON 6	UNIT 4: OPTICS -Nature of Light and Electromagnetism Reflection, Mirrors, and Critical Angle, Refraction and Lenses, Total Internal Reflection Thin Film Interference Polarization Interference and Diffraction +Discussion of Homeworks
LESSON 7	UNIT 4: MODERN PHYSICS -Brief History and Development of Modern Physics in the Late 19th and Early 20th Centuries Fundamental Forces Theory of Photons and Photoelectric Effect Nuclear Physics: Radioactivity, Nuclear Reactions, Radiations, and Half Life
LESSON 8	UNIT 4: Mass-Energy Equivalence Quantized Energy States for Electrons in Atoms Energies of Photon Emission and Absorption Wave Particle Duality, de Broglie Wavelength Electron Diffraction Photon Momentum and Photon/Particle Collisions, Wave Functions and Probability +Discussion of Homeworks
LESSON 9	MOCK TEST 1
LESSON 10	MOCK TEST 1-REVIEW
LESSON 11	MOCK TEST 2
LESSON 12	MOCK TEST 2-REVIEW
LESSON 13	MOCK TEST 3
LESSON 14	MOCK TEST 3-REVIEW
LESSON 15	MOCK TEST 4
LESSON 16	MOCK TEST 4-REVIEW
PRACTICE SESSIONS	PRACTICE TESTS (10 MOCK TESTS EXTRA) 50 HOURS OF PRACTICE AFTER THE PREPARATION