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| **Day of the week** | **Date** | **Chapters** | **Topics** | **Assignments** |
| Mon | Jan 13 | 17.1-17.4 | Temperature: Atomic theory of matter, temperature, thermal equilibrium; 0th Law of thermodynamics |  |
| Wed | Jan15 | 19.1-19.3 | Heat as Energy transfer, Internal Energy, specific heat |  |
| Fri | Jan 17 | 19.4-19.7 | Calorimetry, Latent heat, 1st Law of thermodynamics |  |
| Wed | Jan 22 | 21.1-21.4 | Static Electricity; Electric Charge  Electric Charge in the Atom –Insulators and Conductors Induced  Charge | **HW 1** |
| Fri | Jan 23 | 21.5-21.7 | Coulomb’s Law –The Electric Field Calculations for Continuous Charge  Distributions – | **Quiz 1** |
| Monday | Jan 27 | 21.8-21.9 | Field Lines, Electric Fields and Conductors |  |
| Wed | Jan 29 | 21.10-21.11 | Motion of a Charged Particle in an Electric Field – Electric Dipoles | **HW2** |
| Fri | Jan 31 | 22.1-22.4 | Electric Flux, Gauss Law, applications of Gauss Law | **Quiz 2** |
| Mon | Feb 3 | 23.1-23.4 | Electric Potential Energy and Potential Difference-Relation between Electric Potential and Electric Field –Electric Potential Due to Point Charges |  |
| Wed | Feb 5 | 23.5-23.7 | Equipotential Surfaces –Electric Dipole Potential – E Determined from V | **No Homework** |
| **Fri** | **Feb 7** |  | **Exam 1** |  |
| Mon | Feb 10 | 23.8 | Electrostatic Potential Energy; the Electron Volt-Cathode Ray Tube: TV and Computer |  |
| Wed | Feb 12 | 24.1-24.2 | Capacitors –Determination of Capacitance Capacitors in Series and Parallel – |  |
| Fri | Feb 14 | 24.3-24.5 | Electric Energy Storage –Dielectrics | **Quiz 3** |
| Mon | Feb 17 | 25.1-25.3 | The Electric Battery –Electric Current –Ohm’s Law Resistance and Resistors |  |
| Wed | Feb 19 | 25.4-25.6 | Resistivity –Electric Power-Power in Household Circuits | **HW 3** |
| Fri | Feb 21 | 25.7-25.9 | Alternating Current Microscopic View of Electric Current: Current Density and Drift Velocity | **Quiz 4** |
| Mon | Feb 24 | 26.1-26.3 | EMF and Terminal Voltage-Resistors in Series and in Parallel-Kirchoff’s Rules |  |
| Wed | Feb 26 | 26.4-26.7 | EMFs in Series and in Parallel; Charging a Battery, Circuits Containing Resistor and Capacitor (RC Circuits)-Electric Hazards | **HW 4** |
| Fri | Feb 28 | 27.1-27.3 | Magnets and Magnetic Fields-Electric Currents Produce Magnetic Fields, Definition of **B** | **Quiz 5** |
| Mon | March 3 | 27.4-27.6 | Force on an Electric Charge Moving in a Magnetic Field; Torque on a Current Loop; Magnetic Dipole Moment |  |
| Wed | March 5 | 27.7-27.8 | Loud Speakers, Discovery and Properties of the Electron- The Hall Effect | **No Homework** |
| **Fri** | **March 7** |  | **Exam 2** | **No quiz** |
| Mon | March 10 | 28.1-28.3 | Magnetic Field Due to a Straight Wire- Force between Two Parallel Wires- Definitions of the Ampere and the Coulomb- |  |
| Wed | March 12 | 28.4-28.6 | Ampere’s Law; Magnetic Field of a Solenoid and a Toroid |  |
| Fri | March 14 | 28.8-29.2 | Magnetic materials–Ferromagnetism Solenoids- Induced EMF- Faraday’s Law of Induction; Lenz’s Law | **Quiz 6** |
| Mon | March 24 | 29.3-29.6 | EMF Induced in a Moving Conductor- Electric Generators Back-EMF and Counter Torque; Transformers and Transmission of Power |  |
| Wed | March 26 | 29.7-29.9 | A Changing Magnetic Flux Produces an Electric Field-Applications of Induction: Sound Systems, Computer Memory, Seismograph | **HW5** |
| Fri | March 28 | 30.1-30.3 | Mutual Inductance- Self-Inductance-Energy Stored in a Magnetic Field | **Quiz 7** |
| Mon | March 31 | 30.4-30.8 | LR Circuits, LC Circuits and Electromagnetic Oscillations- LC Oscillations with Resistance (LRC Circuit)-AC Circuits with AC Source-LRC Series AC Circuit |  |
| Wed | April 2 | 31.1-31.3 | Changing Electric Fields Produce Magnetic Fields; Ampere’s Law and Displacement | **HW6** |
| Fri | April 4 | 31.4-31.5 | Gauss’s Law for Magnetism- Maxwell’s Equations-Production of Electromagnetic Waves | **Quiz 8** |
| Mon | April 7 | 32.1-32.2 | Light as an Electromagnetic Wave. The Ray Model of Light-Reflection; Image formation by a Plane Mirror |  |
| Wed | April 9 | 32.2-32.4 | Image Formation of Images by Spherical Mirrors, Index of refraction | **No Homework** |
| **Fri** | **April 11** |  | **Exam 3** |  |
| Mon | April 14 | 32.5-32.7 | Refraction: Snell’s Law -Visible Spectrum and Dispersion, Total Internal Reflection |  |
| Wed | April 16 | 33.1-34.3 | Ray Tracing-The Thin Lens Equation; Magnification-Combinations of Lenses- | **HW7** |
| Fri | April 18 | 33.4-35-8 | Lens maker’s Equation, Magnifying Glass, Telescopes | **Quiz 9** |
| Mon | April 21 | 34.1-34.3 | Waves Versus Particles; - Huygens’ Principle and the Law of Refraction, |  |
| Wed | April 23 | 34.4-34.5 | Intensity in the double slit- Interference in Thin Films; | **HW8** |
| Fri | April 25 | 35.1-35.3 | Diffraction by a single slit Interference, intensity of single slit. Diffraction in Double-Slit Experiment- | **Quiz 10** |
| Mon | April 28 | 35.4-35.8 | Limits of resolution, Diffraction grating, Spectrometer, x-rays and x-ray diffraction |  |
| **Th** | **May 1** |  | **Final Exam – 8:00 am** |  |