

# AP PHYSICS 2

## COURSE OUTLINE

### **Unit 1: Fluid Mechanics** – 4 weeks

- Chapter 11: Fluids

### **Unit 2: Thermodynamics** – 4 weeks

- Chapter 12: Temperature and Heat
- Chapter 13: The Transfer of Heat
- Chapter 14: The Ideal Gas Law and Kinetic Theory
- Chapter 15: Thermodynamics

### **Unit 3: Electric Force, Electric Field, and Electric Potential** – 4 weeks

- Chapter 18: Electric Forces and Electric Fields
- Chapter 19: Electric Potential Energy and the Electric Potential

### **Unit 4: Steady State DC and RC Circuits** – 4 weeks

- Chapter 20: Electric Circuits

### **Unit 5: Magnetostatics and Electromagnetism** – 4/5 weeks

- Chapter 21: Magnetic Forces and Magnetic Fields
- Chapter 22: Electromagnetic Induction

### **Unit 6: Geometric Optics and Physical Optics** – 4/5 weeks

- Chapter 24: Electromagnetic Waves
- Chapter 25: The Reflection of Light: Mirrors
- Chapter 26: The Refraction of Light: Lenses and Optical Instruments
- Chapter 27: Interference and the Wave Nature of Light

### **Unit 7: Quantum, Atomic, and Nuclear Physics** – 4 weeks

- Chapter 29: Particles and Waves
- Chapter 30: The nature of the Atom
- Chapter 31: Nuclear Physics and Radioactivity
- Chapter 31: Ionizing Radiation, Nuclear Energy, and Elementary Particles