



	AV/Multimedia Materials Daily Reading Problem-Solving Assignments	
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LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
8. Use experimental evidence to form tentative interpretations and conclusions.	Lecture Small Group Discussions Laboratory Experiments Demonstrations AV/Multimedia Materials Daily Reading Problem-Solving Assignments	Homework/Quiz Laboratory Report Section Examinations Final Exam
9. Assign meaningful measurement uncertainties and identify reasonable sources of experime		

benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria.*

#### SEQUENCE OF TOPICS:

1. Simple Harmonic Motion
2. Waves and Harmonic Waves
3. Sound
4. Standing Waves
5. Electric Charge and Electric Fields
6. Electric Potential
7. Capacitance
8. Current and Resistance
9. DC Circuits
10. Magnetism and Magnetic Fields
11. Charged Particles in Magnetic Fields
12. Faraday's Law of Electromagnetic Induction
13. AC Circuits
14. Electromagnetic Waves and the Nature of Light
15. Mirrors and Lenses
16. Compound Optical Systems
17. Interference of Light
18. Diffraction of Light

#### SEQUENCE OF EXPERIMENTS:

1. Simple Harmonic Motion
2. Standing Waves and Resonance
3. Mapping Electric Fields
4. The Oscilloscope
5. Basic DC Circuits
6. RC Time Constant
7. Charged Particles in Magnetic Fields
8. Electromagnetic Induction
9. AC Circuits
10. Optics I Mirrors and Lenses
11. Optics II Compound Optical Systems
12. Interference of Light
13. Diffraction of Light
14. Atomic Spectra

#### LEARNING MATERIALS:

##### Textbook:

Giancoli. (2013) *Physics: Principles with Applications* (7<sup>th</sup> ed.). Pearson.

Physics Computer Lab (Science Center 216)

Tutorial Services

Scientific calculator (logarithms, exponential, powers, roots, etc.)

Other learning materials may be required and made available directly to the student