

PHYS 121 - General Physics 2 Course Outline

Approval Date: 05/20/2013

Effective Date: 01/16/2018

SECTION A

Unique ID Number CCC000299725

Discipline(s) Physical Sciences

Division Science and Engineering

Subject Area Physics

Subject Code PHYS

Course Number 121

Course Title General Physics 2

TOP Code/SAM Code 1902.00 - Physics, General / E - Non-Occupational

Rationale for adding this course to the curriculum minor reorganizing of SLOs

Units 4

Cross List N/A

Typical Course Weeks 18

Total Instructional Hours

Contact Hours

Lecture 54.00

Lab 72.00

Activity 0.00

Work Experience 0.00

Outside of Class Hours 108.00

Total Contact Hours 126

Total Student Hours 234

Open Entry/Open Exit No

Maximum Enrollment

Grading Option Letter Grad Tm0 g.08 Tm0 g0 G()TJETQ EM

L.

- b. Production of electromagnetic waves
- c. Light as an electromagnetic wave and the electromagnetic spectrum
- d. Energy in EM waves
- H. Light: Geometric Optics
 - a. The speed of light and index of refraction
 - b. Formation of images by spherical mirrors
 - c. Refraction: Snell's Law
 - d. Total internal reflection; fiber optics
 - e. Thin lenses
- I. The Wave Nature of Light
 - a.

- a. Quantum mechanics
- b. The wave function
- c. The Heisenberg uncertainty principle
- d. Quantum mechanics of the hydrogen atom; quantum numbers
- e. Complex atoms; the exclusion principle
- f. The periodic table of elements
- g. X-ray spectra and atomic number

- Daily reading assignments in the two texts listed are required.
- B. Writing Assignments
 - Chapter problem assignments in "Physics" are required weekly
 - Written laboratory reports are required every week
- C. Other Assignments
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