

COURSE OUTLINE

Revision: Mike Steffancin, February 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	Applied Academics
COURSE TITLE:	General Physics I
COURSE NUMBER:	PHYS& 121
TYPE OF COURSE:	Academic Transfer
Special Requirement Met:	Mathematics/Quantitative Reasoning
AREA(S) OF KNOWLEDGE:	The Physical Universe
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	44
LAB HOURS:	22
CLASS SIZE:	30
PREREQUISITES:	MATH 098 (Intermediate Algebra)

COURSE DESCRIPTION:

First of three non-calculus based courses covering the field of Physics. Includes kinematics, vectors, forces, dynamics, work, energy, momentum, torque and gravitation. Lab included.

PHYS& 121 General Physics I
February 2008

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Read and listen actively to learn and communicate. Write lab reports to communicate the results of experimental tests.
2. Computation - Use arithmetic and other basic mathematical operations to solve physics problems.
3. Human Relations - Use social interactive skills to work in groups effectively.
4. Critical Thinking and Problem Solving - Think critically in evaluating information, solving problems and making decisions.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Have an understanding of the basic principles, analytical methods and terminology of physics dealing with mechanics.
2. Develop competence in problem analysis and solution by experimental as well as theoretical methods.

TOPICAL OUTLINE:

- I. Measurement
 - A. SI Units
 - B. Significant Digits
 - C. Unit conversion
- II. Mechanics
 - A. Description of Motion
 - B. Force and motion
 - C. Work, energy and power
 - D. Momentum
 - E. Rotational Motion

Total

66

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DATE: February 2008

Course Prefix and Number: PHYS&121
 Course Title: Technical Physics I

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1	Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1, 2	Computation - Use mathematical operations
SLO 2.2	1, 2	Computation - Apply quantitative skills
SLO 2.3	1, 2	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1		Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2		Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1, 2	Critical Thinking and Problem Solving -
SLO 5.1	1, 2	Technology - Select and use appropriate technological tools
SLO 6.1		Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2		Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3		Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5		Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1	1	Information Literacy - Access and evaluate information
SLO 7.2	1	Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

PREPARED BY: Mike
 Steffancin
 DATE: August 2008