

Grande Prairie Regional College

Department of Science

PC1240 A2 INTRODUCTORY GENERAL PHYSICS I 3.0 (3-0-3) UT(3)

Lectures	M W	10:00 - 11:20 p.m.	J202
Laboratory	W or R	2:30 - 5:20 p.m.	J103

INSTRUCTOR: Dr. Robert Hunt, P. Eng.

OFFICE: C414

PHONE: 539-2008/532-1338 (GPRC/HOME)

E-MAIL: bhunt@gprc.ab.ca

TEXT: Physics: James Walker, 3rd Edition (Pearson)

COURSE CONTENT:

An algebra-based course for students in life, environmental, and medical sciences. It guides the student through two distinct types of motion: motion of matter (particles) and wave motion. Vectors, forces, bodies in equilibrium, elasticity and fracture; review of kinematics and basic dynamics; conservation of momentum and energy; circular motion; vibrations; waves in matter; wave optics; sound; black body radiation, photons, de Broglie waves; models of the atom. Examples relevant in environmental, life and medical sciences will be emphasized.

PRE-REQUISITE: Physics 20 or equivalent, Pure Mathematics 30. Physics 30 is strongly recommended.

Credit may normally be obtained for only one of PC1010, PC1020, PC1080, PC1240, PC1440, or PC1310.

MARK DISTRIBUTION:

Assignments	15%
Laboratories	20%
Mid-Term Examination	20% (Oct. 21/09 evening)
Final Examination	45% (TBA)

LABORATORY COMPONENT

Lab #	Source Content		Week of	
1	Exp. #1	Graphical Analysis	Sept.	14
2	Handout	Vector Addition	Sept	21
3	Exp. #3	Non-Uniform Motion	Sept.	28
4	Exp. #2	Acceleration Due to Gravity	Oct .	5
5	Exp. #4	Atwood's Pulley	Oct.	12
6	Exp. #5	Potential and Kinetic Energy	Oct.	26
7	Exp. #6	Collision of Ball	Nov.	2
8	Exp. #7	Standing Waves on a String	Nov.	16
9	Exp. #8	Speed of Sound in Air	Nov.	23
10	Exp. #9	Interference of Light	Nov.	30

GRADING GUIDELINES

Descriptor

Grade

Excellent

A+
A
A-

Good

B+
B
B-

Satisfactory

C+
C
C-

Poor

D+

Minimal Pass

D

Fail

F



(Cambridge System)