

Grande Prairie Regional College

Department of Science

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

Lectures	A2	M W	10:00 - 11:20 p.m.	J202
	B2	T R	1:00-2:20 p.m.	J107
Laboratory	T or W or R		2:30 - 5:20 p.m.	J103

INSTRUCTOR: Dr. Robert Hunt, P. Eng. FEC

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TEXT: Physics: James Walker, 4th Edition (Pearson)

COURSE CONTENT:

This is 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. 19/11 evening)
Final Examination	45% (TBA)

LABORATORY COMPONENT

Lab #	Source Content	Week of
1	Exp. #1 Graphical Analysis	Sept. 12
2	Handout Vector Addition	Sept 19
3	Exp #3 Non-Uniform Motion	Sept. 26
4	Exp. #2 Acceleration Due to Gravity	Oct . 3
5	Exp. #4 Atwood’s Pulley	Oct. 10
6	Exp. #5 Potential and Kinetic Energy	Oct. 24
7	Exp. #6 Collision of Ball	Oct. 31
8	Exp. #7 Standing Waves on a String	Nov. 7
9	Exp. #8 Speed of Sound in Air	Nov. 14
10	Exp. #9 Interference of Light	Nov. 21

GRADING GUIDELINES

Descriptor	Grade
Excellent	A+
	A
	A-
Good	B+
	B
	B-
Satisfactory	C+
	C
	C-
Poor	D+
	D
Minimal Pass	F
Fail	



(Cambridge System)