

Grande Prairie Regional College

Department of Science & Technology

PC 1260 INTRODUCTORY GENERAL PHYSICS II 3.0 (3-0-3) UT(3)

Lectures M W 10:00 - 10:50 a.m. J227

Laboratory W F 2:30 - 5:20 p.m. J103

INSTRUCTOR: Dr. Robert Hunt, P.Eng.

OFFICE: C414

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

E-MAIL: hunt@gprc.ab.ca

TEXT: Physics. Cutnell and Jounson, 6th Edition

COURSE CONTENT: This course is a continuation of PC1240 for students in life and medical sciences. Fluid statics and dynamics, gases, kinetic interpretation; electrostatics; currents and circuits; magnetic field; electromagnetic induction; nuclear radiation, its interaction with matter and applications.

PRE-REQUISITE **PC 1240 Credit may be obtained for one of PC 1260 or PC 1460**

MARK DISTRIBUTION:

Assignments	15%	
Laboratories	20%	
Mid-Term Examination	25%	(Feb. 16/05)
Final Examination	40%	(TBA)

COURSE OUTLINE

Chapter 11	Pressure, buoyancy, fluid flow and viscosity.
Chapter 18	Charge, Coulomb's Law, electric field and conductors.
Chapter 19	Electric potential, capacitance, dielectrics and applications.
Chapter 20	Electric current, resistance, Ohm's Law, DC, AC and electrical energy. Resistors in series and parallel, Kirchoff's Laws and hazards.
Chapter 21	Magnetic Fields, magnetic forces and current-carrying conductors.
Chapter 22	Induction, Lenz's Law, generators and transformers.
Chapter 23	Reactance, RLC circuits and resonance.
Chapter 24	Maxwell and em waves.
Chapter 31	Nuclear energy, radioactivity, decay and applications.

LABORATORY COMPONENT

Lab #	Content	Week of
11	Fluid Properties	Jan. 3
12	Terminal Velocity	Jan. 10
13	Coulomb's Law	Jan. 17
handout	Inverse Square Law	Jan. 24
14	Mapping of Electric Fields	Jan. 31
15	Capacitance	Feb. 7
16	Simple Electric Currents	Feb. 28
17	e/m for Electrons	Mar. 7
18	Magnetic Fields	Mar. 14
handout	Balmer Series	Mar. 21

GRADING GUIDELINES

Percent (Approx.)	Grade
84 - 100	A
72 - 83	B
60 - 71	C
50 - 59	D
0 - 49	F