

# Grande Prairie Regional College

## Department of Science

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

Lectures	M W	10:00 - 10:50 a.m.	J202
Laboratory	R	2:30 - 5:20 p.m.	J103

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

**OFFICE:** C414

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**TEXT:** Physics Walker 4<sup>th</sup> 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	20%	(Feb. 18/10)
Final Examination	45%	(TBA)

## PC1260 Course Outline

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### COURSE OUTLINE

Chapter 15	Pressure, buoyancy, fluid flow and viscosity.
Chapter 19	Charge, Coulomb's Law, electric field and conductors.
Chapter 20	Electric potential, capacitance, dielectrics and applications.
Chapter 21	Electric current, resistance, Ohm's Law, DC, AC and electrical energy. Resistors in series and parallel, Kirchoff's Laws and hazards.
Chapter 22	Magnetic Fields, magnetic forces and current-carrying conductors.
Chapter 23	Induction, Lenz's Law, generators and transformers.
Chapter 24	Reactance, RLC circuits and resonance.
Chapter 32	Nuclear energy, radioactivity, decay and applications.

### LABORATORY COMPONENT

Lab #	Content	Week of
11	Fluid Properties	Jan. 11
12	Terminal Velocity	Jan. 18
13	Coulomb's Law	Jan. 25
handout	Inverse Square Law	Feb. 1
14	Mapping of Electric Fields	Feb. 8
15	Capacitance	Feb. 22
16	Simple Electric Currents	Mar. 9
17	e/m for Electrons	Mar. 15
18	Magnetic Fields	Mar. 22
handout	Balmer Series	Mar. 29

### GRADING GUIDELINES

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