

SYLLABUS

Instructor Dr. Marc de Montigny
Office CEB 254-L
E-mail montigny@phys.ualberta.ca
Telephone 492-5509
Office hours Mon 9 AM – 12 PM; Wed 2 – 5 PM, or by appointment
Website <http://www.phys.ualberta.ca/~montigny/phys126.html>

Lectures Mon-Wed-Fri 1:00 – 1:50 PM
Central Academic Building CAB 243

Course description

This course is a continuation of PHYS 124, primarily for students in life, environmental, 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. Prerequisites: PHYS 124. If you do not have this prerequisite, you must complete an *Application for a Waiver of a Prerequisite* form, otherwise you may not receive credits for the course (See Ms. Janet Couch, CEB 248-A, to obtain a form). Note: Credit may be obtained for only one of PHYS 126, 130, or 146.

Required Books

- *Physics* by James S. Walker, 3rd Edition (2007) Pearson Education ISBN 0-13-153631-1
- *PHYS 124/126 Laboratory Manual*

Both may be purchased at the Student Union Building Bookstore.

*Students are expected to read the material covered in advance of the lectures.

Course Grading

Assignments ¹	10%		
Laboratory ²	20%		
Mid-term ³	20%	Wednesday, February 13	1:00 – 1:50 PM
Final Exam ³	50%	Friday, April 18	2:00 – 5:00 PM

Notes :

- (1) Assignments will be set approximately once per week (in class and on the website). They should be submitted on the due date, either in class or in the designated drop-box. Late assignments will not be accepted for marking and will be given a grade of zero. Solutions will be posted on the course website.
- (2) All students must be registered in and attend a laboratory section. You must earn a laboratory grade of at least 50% in order to pass this course. Grading and other policies will be explained in your laboratory class, which begins the week of January 14. For more details, see <http://polaris.phys.ualberta.ca/>.
- (3) You can bring a calculator (without communication features) and a pen or pencil to the exams, but no other materials (no PDA's, laptops, cell phones, etc.). A formula sheet will be provided. To help you with your preparation, this sheet will be posted on the course website prior to the exam, and a new copy will be available at the exams. Regulations about examinations are in Section 23.5 of the University Calendar.

The following grading scale will be applied at the end of the term by means of a grading curve appropriate for the class.

<u>Description</u>	<u>Letter Grade</u>	<u>Grade Point Value</u>
Excellent	A+	4.0
	A	4.0
	A-	3.7
Good	B+	3.3
	B	3.0
	B-	2.7
Satisfactory	C+	2.3
	C	2.0
	C-	1.7
Poor	D+	1.3
Minimal Pass	D	1.0
Failure	F	0.0

Academic Integrity

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at <http://www.ualberta.ca/secretariat/appeals.htm>) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University. [UA Calendar, Section 23.4(2)c]

In fairness to other students, any cases of dishonesty will be dealt with through the appropriate university channels [see Code of Student Behaviour]. You are permitted to discuss homework with others (classmates, friends, etc.), but you must hand in your own work for marking.

Course Outline (Sections refer to Walker's Textbook)

Chapter 15	Fluids
Chapter 19	Electric Charges, Forces, and Fields (excluding section 19.7)
Chapter 20	Electric Potential and Electric Potential Energy
Chapter 21	Electric Current and Direct-Current Circuits
Chapter 22	Magnetism (excluding section 22.6)
Chapter 23	Magnetic Flux and Faraday's Law of Induction
Chapter 24	Alternating-Current Circuits
Chapter 32	Nuclear Physics and Nuclear Radiation

Policy about course outlines can be found in §23.4(2) of the University Calendar.