

# School of Arts & Science PHYSICS DEPARTMENT PHYS 101-002

Introduction to Physics Fall 2011

## **COURSE OUTLINE**

The course description is online @ http://camosun.ca/learn/calendar/current/web/phys.html

Ω Please note: the College electronically stores this outline for five (5) years only. It is strongly recommended you keep a copy of this outline with your academic records. You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

#### 1. Instructor Information

Instructor: Nancy Luick

Office Hours: Mon. – Fri: 10:30 – 11:20 am or by appointment

Location: F346B Phone: 370 - 3515

Email: luick@camosun.bc.ca
Website Info: luick.disted.camosun.bc.ca

#### 2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

Upon completion of this course, the student will be able to:

- 1. Demonstrate skill in the use of S.I. base and derived units.
- 2. Draw graphs (by hand), determining slopes of linear graphs, linearization of non-linear data, and writing an equation to represent a linear graph.
- 3. Solve technical problems involving one-dimensional kinematics for a single particle with constant acceleration.
- 4. Solve technical problems involving the dynamics of a single particle in one dimension (force, weight, Newton's Laws of Motion).
- 5. Solve technical problems involving kinetic energy, gravitational potential energy, elastic potential energy, conservation of mechanical energy, and mechanical power.
- 6. Solve technical problems involving simple DC electric circuits, Ohm's Law, electric power, and resistors in series and parallel combination.
- 7. Solve technical problems involving nuclear energy (mass-energy equivalence, binding energy).
- 8. Assemble simple experimental apparatus using written instructions.
- 9. Observe, record, organize and display experimental data in tables, graphs or charts.
- 10. Analyze linear graphs (determine area, slope, intercept, etc.).
- 11. Interpret meaning of experimental results in the context of the experimental objectives.

# 3. Required Materials

(a) Texts Physics 101 Course Materials book (b) Other Physics 101 Laboratory Manual

Graph paper (must be either 10 lines/inch or millimeter graph paper)

#### 4. Course Content and Schedule

**Class Times:** Mon., Tues., Fri. 9:30 – 10:20 am F316

Wednesday 9:30 - 10:20 am F214

**Lab Times:** Friday 8:30 – 10:20 am F316

#### 5. Basis of Student Assessment (Weighting)

(This section should be directly linked to the Intended Learning Outcomes.)

The student must be successful (≥ 60%) in both the theory and laboratory assignments to pass the course. The approximate percentages used for the final grading are:

Quizzes 40%

Lab Work 10% Final Exam (3 hours) 50%

#### 6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

# Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

#### **Temporary Grades**

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description	
I	Incomplete: A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.	
IP	In progress: A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 <sup>rd</sup> course attempt or at the point of course completion.)	
cw	Compulsory Withdrawal: A temporary grade assigned by a Dean when an instruct after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab practicum, worksite, or field placement.	

## 7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

#### LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services, or the College web site at <a href="mailto:camosun.ca">camosun.ca</a>.

# STUDENT CONDUCT POLICY

There is a Student Conduct Policy which includes plagiarism. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED