

# School of Arts & Science PHYSICS DEPARTMENT PHYS 101 Introduction to Physics Fall 2017

## **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

(a)	Instructor:	Elizabeth Ploughma	ın	
(b)	Office Hours:	Mon, tues, th-9:30 wed-12:30 Fri 11:30		
(c)	Location:	F314B		
(d)	Phone:	250 370 3517	Alternative Phone:	
(e)	Email:	ploughe@camosun.bc.ca		
(f)	Website:			

### 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), determine slopes of linear graphs, linearize non-linear data, and write 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 using Newton's Laws of Motion.
- 5. Perform vector analysis using scaled diagrams with applications to displacement and force
- 6. Define the terms work, kinetic energy, gravitational potential energy and power.
- Solve technical problems using the work-kinetic energy theorem and conservation of mechanical energy.
- 8. Solve technical problems involving simple DC electric circuits, Ohm's Law, and electric power.
- 9. Define and describe the following properties of waves: period, frequency, wave speed and amplitude.
- 10. Define the properties of light, including the electromagnetic spectrum.
- 11. State and apply the Law of Reflection and the Law of Refraction.
- 12. Assemble simple experimental apparatus using written instructions.
- 13. Observe, record, organize and display experimental data in tables, graphs or charts.
- 14. Analyze linear graphs (determine area, slope, intercept, etc.).
- 15. Interpret experimental results in the context of the experimental objectives.

## 3. Required Materials

- (a) Texts any edition of 'Physics' by Giancoli, lab manual, homework pack
- (b) Otheroptional 'workbook'

#### 4. Course Content and Schedule

(This section can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

## 5. Basis of Student Assessment (Weighting)

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

- (a) Assignments lab reports and work done in class with a partner -15%
- (b) Quizzes- 35%
- (c) Exams final exam-50%
- (d) Other (e.g., Attendance, Project, Group Work)

## 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.)
Compulsory Withdrawal: A temporary grade assigned by a Dean when a after documenting the prescriptive strategies applied and consulting with deems that a student is unsafe to self or others and must be removed from 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.