

School of Arts & Science PHYSICS DEPARTMENT PHYS 101 Introduction to Physics Spring 2015

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 Ploughman | | |
|-----|---------------|--|--------------------|--|
| (b) | Office Hours: | 1:30 to 2:15 mon-Fri note NO after class office hrs | | |
| (c) | Location: | F 314 B | | |
| (d) | Phone: | 250 370 3517 | Alternative Phone: | |
| (e) | Email: | Students please phone for help and a quick response however during exam week emails are sometimes quickest 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), 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.
- 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** Introductory Physics special Camosun custom print by Stewart, Hersh, Martindale and Bibla and Lab manual
- (b) optional workbook
- (c) required items 3 duotangs, paper, graph paper, calculater

4. Course Content and Schedule

Lectures, in class group work, in class tests, labs and a final exam

5. Basis of Student Assessment (Weighting)

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

(a) Assignments done in class and lab work count together for 10%

- (b) Quizzes 40%
- (c) Exams final exam 50%
- (d) Other (e.g., Attendance, Project, Group Work) this sort of stuff is rolled into the lab mark but is approx. 1.5% of the total

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 |
|--------------------|---|
| 1 | 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 rd course attempt or at the point of course completion.) |
| cw | Compulsory Withdrawal: A temporary grade assigned by a Dean when an instructor, 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 camosun.ca.

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.

