



CAMOSUN COLLEGE
School of Arts & Science
Department of Physics & Astronomy

PHYS-101-002
Introduction to Physics
Fall 2018

COURSE OUTLINE

The course description is available on the web @ <http://camosun.ca/learn/calendar/current/web/phys.html>

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a) Instructor	Stephanie LaForest
(b) Office hours	Tuesday-Friday 11:30am- 12:30pm
(c) Location	F346 C
(d) Phone	250-370-3513 Alternative: _____
(e) E-mail	laforestS@camosun.bc.ca
(f) Website	D2L (online.camosun.ca)

2. Intended Learning Outcomes

Upon completion of this course a 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.
7. 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) Textbook: "Physics 101: Introductory Physics", adapted from "Physics Principles and Problems", Zitzewitz et al, McGraw-Hill Glencoe, 2009
- (b) PHYS 101 Lab Manual
- (c) Scientific Calculator, Drawing instruments (ruler, protractor, etc.)
- (d) Graph Paper (10mm x 10mm)

4. Course Content and Schedule

Lecture:	Tuesday	10:30 am- 11:20 am	F200
	Wednesday	10:30 am- 11:20 am	F202
	Thursday	10:30 am- 11:20 am	F322
	Friday	10:30 am- 11:20 am	F322
Lab:	Monday	10:30 am- 12:20 pm	F316

5. Basis of Student Assessment (Weighting)

- (a) Final Exam 50%
- (b) Tests (best 3 out of 4) 30%
- (c) Weekly Quizzes 5%
- (d) Weekly Homework 5%
- (e) Lab Reports 10%

Note: Students must pass- obtain an overall grade of 50% or higher- in the laboratory component of the course order to obtain credit for the course.

Tests are scheduled as follows:

Test #1: Friday September 28th

Test #2: Friday October 19th

Test #3: Friday November 9th

Test #4: Friday November 30th

INSTRUCTOR SPECIFIC POLICIES

1. Homework problems will mainly be assigned from the textbook. They will be due on Friday of each week.
2. Lab reports for a particular week will be due one week following the lab. Each student is allowed one dropped or missed lab.
3. Please refer to the D2L website regularly for important announcements and an up-to-date calendar with due dates and test dates.
4. Missed tests and labs will only be excused if I am contacted within 24 hours of the absence and with proper supporting documentation provided (counselor's note, doctor's note, etc...). Otherwise, a mark of zero will be assigned.
5. Any outstanding homework or lab reports must be submitted prior to the last date of classes.

PHYSICS DEPARTMENT POLICIES REGARDING TESTING:

1. *The final exam will cover the entire course and will be 3 hours long. As stated in the current college calendar on page 39, “students are expected to write tests and final exams at the scheduled time and place.” Exceptions will only be considered due to emergency circumstances as outlined in the calendar. Holidays or scheduled flights are not considered to be emergencies.*
2. *Students must write quizzes, tests, midterm tests, etc., on the date and time assigned by the instructor. Missed exams normally receive a zero grade. Instructors are not required to provide make-up tests. At their discretion, instructors may waive a test in exceptional circumstances such as medical issues or a documented illness.*

PHYSICS DEPARTMENT POLICIES REGARDING LABS:

1. *Lab attendance is mandatory – you cannot complete a lab using someone else’s data and you may be required to “sign in” at the beginning of each lab period. A lab may be waived or made up at a later time only in the case of documented illness or other extenuating circumstances. If you will be absent from a lab period due to illness it is your responsibility to notify your instructor.*
2. *Unless otherwise stated by your instructor late penalties are as follows: For overdue labs (or assignments), a late penalty of 1 mark per day (10%) will be assessed for the first five days following the due date. After this date a complete report earns a maximum mark of 50%.*
3. *At the discretion of the instructor, a student who is repeating this Physics course may apply for lab exemption.*

6. Grading System

- Standard Grading System (GPA)
- Competency Based Grading System

7. Recommended Materials to Assist Students to Succeed Throughout the Course

Please come by my office hours if you have questions while studying, and feel free to email me to set up an appointment to meet outside of my set times.

8. College Supports, Services and Policies



Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. GRADING SYSTEMS <http://camosun.ca/about/policies/index.html>

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. 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 at <http://camosun.ca/about/policies/index.html> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
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I	<i>Incomplete:</i> 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	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> 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.