



## 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:	Bob Sedlock		
(b)	Office Hours:	M,Tu, TH, F 9:30-10:30, M 1:30-2:30.		
(c)	Location:	F340C		
(d)	Phone:	370-3510	Alternative Phone:	
(e)	Email:	Sedlock@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. Define the concept of moment of inertia and solve technical problems related to the rotational dynamics of rigid bodies (parallel and perpendicular axis theorems, moment of inertia of symmetric objects).
2. State the law of Universal Gravitation and describe the interior and exterior shell theorems. Solve technical problems related to gravitational attraction between extended objects and a point mass. State and apply Kepler's Laws of Planetary motion to simple problems of celestial mechanics.
3. State and describe the principles of special relativity and use spacetime diagrams to solve simple problems involving time dilation, length contraction, and the addition of velocities.
4. State the ideal gas equation of state and underlying assumptions, and define molecular flux. Solve technical problems associated with the ideal gas.
5. State the equation and conditions for simple harmonic motion, and solve technical problems related to small-amplitude oscillations of mechanical systems, including free, damped and forced oscillations.
6. State Archimede's Principle, Pascal's Principle, Bernoulli's Principle and the equation of continuity, and solve technical problems related to hydrostatic fluids and fluid flow.
7. Solve problems involving the superposition, interference, transmission and reflection of mechanical traveling waves, including the Döppler effect for moving sources and receivers.
8. Design and assemble novel experiments for original projects.
9. Observe, record, organize and display data in tables, graphs or charts.
10. Analyze linear graphs (determine area, slope, intercept, etc.).
11. Observe and record sources of error and estimate/compute uncertainty in results.
12. Interpret meaning of experimental results in the context of the experimental objectives.
13. Write scientific reports in an acceptable, traditional format.

### 3. Required Materials

- (a) Texts
- (b) Other

### 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: 15%
- (b) Quizzes 20%
- (c) Exams 50%
- (d) Labs: 15%

## 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	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	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](http://camosun.ca) for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
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, 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	<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.

## 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](http://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.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED