School of Arts & Science

PHYSICS DEPARTMENT

PHYS 200-section

Mechanics 2

Semester/Year, eg, 2007F or 2007Q1
FACULTY INSTRUCTIONS:
1. Save this "read-only" template as your course outline
- click File --> SaveAs --> click in the File name box so cursor appears after the hyphen
- type your course section number, space, and your name
- click Save (to the right of the File name box)
2. Add your information in the blue areas of your saved course outline
- in the heading, replace "section" with your course section number
- replace "Semester/Year, eg, 2007F or 2007Q1" with the current semester and year
- add a web address for the approved course description (optional)
- add your information to number 1, 3, 4, 5 and (optional) 7 below
3. Save and close your completed course outline
- click File --> Save
- click File --> Close
4. Please advise the Arts & Science Administration Office (c/o svendsend@camosun.bc.ca) you have completed your course outline! Thank you!
NB: THESE INSTRUCTIONS ARE "HIDDEN" AND WILL BE UNSEEN IN PRINT.

COURSE OUTLINE

The Approved Course Description is available on the web @
(Please note: this outline will be electronically stored for five (5) years only.
It is strongly recommended students keep this outline for your records.

1. Instructor Information

(a)
Instructor:
John Pratt
(b)
Office Hours:
M., T., W., F.,8 30 – 9 30 ; Th., 9 30 – 10 30
(c)
Location:
F 346 B
(d)
Phone:
370 - 3516
Alternative Phone:
3511
(e)
Email:

prattj@camosun.bc.ca
(f)
Website:

2. Intended Learning Outcomes
(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

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 Serway/Jewett, "Physics for Scientists and Engineers" (7.Edition)

(b) Other Camosun College Phys.200 lab. manual

4. Course Content and Schedule
(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

M., T., W., F., 8 30 – 9 30 ; Th., 8 30 – 10 30

5. Basis of Student Assessment (Weighting)
(Should be linked directly to learning outcomes.)

(a) Assignments

(b) Quizzes

(c) Exams Midterm, 30% ; Final, 50%

(d) Other (e.g., Attendance, Project, Group Work) Lab. Work, 20%

6. Grading System
(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO 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 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 3rd 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 on the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED