



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

PHYS-160-001
Biomechanics of Sport
Winter 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	Dr. Julie Alexander
(b) Office hours	M 10:30-12:30, T 1:00-2:00, W 11:30-12:30, F 11:30-12:30
I Location	Tech 220
(d) Phone	4437 Alternative: _____
I E-mail	jalex@camosun.bc.ca
(f) Website	web.uvic.ca/~jalexndr

2. Intended Learning Outcomes

Upon completion of this course a student will be able to:

1. Answer, in written form, brief conceptual questions on the scope of biomechanics.
2. Solve technical problems:
 - involving units of scientific measurement, derived S.I. units, unit conversions.
 - involving forces in one dimension.
 - of force and linear kinematics with constant acceleration.
 - of momentum and impulse in one dimension.
 - of mechanical work, energy and power.
 - involving rotational quantities and kinematic relationships.
 - of torque, rotational kinematics, and angular momentum.
 - involving centre of mass.
 - of fluid buoyancy, lift and drag.
 - demonstrate proficiency in qualitative and quantitative biomechanical analysis of a sport activity.
3. Assemble simple experimental apparatus using written instructions.
4. Observe, record, organize and display data in tables, graphs or charts.
5. Analyze linear graphs (determine area, slope, intercept, etc.).
6. Interpret meaning of experimental results in the context of the experimental objectives.

3. Required Materials

- (a) Texts Biomechanics of Sport and Exercise, 3rd edition, McGinnis, P.M.
- (b) Other Physics 160 Laboratory Manual
Physics 160 Biomechanics Problem Book
Scientific calculator

4. Course Content and Schedule

Class times M 1:30-2:30, Tu 12:00-12:50, W 10:30-11:30, F 10:30-11:30
Lab M – 8:30-10:30

5. Basis of Student Assessment (Weighting)

Term project 10%
Term Tests 40%
Final Exam 50%

6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

N/A

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
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.