

# COURSE SYLLABUS



COURSE TITLE: KIN 150, Sport Biomechanics  
CLASS SECTION: 001 & 002  
TERM: Winter 2022  
COURSE CREDITS: 3  
DELIVERY METHOD(S): Lecture / Lab

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here. Learn more about Camosun's [Territorial Acknowledgement](#).

For COVID-19 information please visit <https://legacy.camosun.ca/covid19/index.html>.

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*Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.*

## INSTRUCTOR DETAILS

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NAME: Gord Inglis  
EMAIL: [inglisg@camosun.ca](mailto:inglisg@camosun.ca)  
OFFICE: CSEE PISE Building Room 307  
HOURS: (email for an appointment)  
INSTRUCTIONAL ASSISTANT: 001 – Sheena Kelly [kellys@camosun.ca](mailto:kellys@camosun.ca)  
002 – Dustin Moore [moored@camosun.ca](mailto:moored@camosun.ca)

*As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.*

## CALENDAR DESCRIPTION

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Students will study human movement with emphasis on the physical laws and mechanical principles of motion as it applies to the athlete, exercise therapist, coach, physical educator, and sport scientist. Students will study qualitative and quantitative analysis of human motion in sport situations through the exploration of biomechanical principles and kinematics and kinetics factors as they apply to a range of sport and movement skills.

PREREQUISITE(S): C in SPEX KIN 125 or C in BIOL 143 or C in BIOL 150  
CO-REQUISITE(S): -  
EXCLUSION(S): -

## COURSE LEARNING OUTCOMES / OBJECTIVES

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- ♣ Explain the value and breadth of biomechanics in the field of kinesiology.
- ♣ Demonstrate the ability and competency to compute the quantitative parameters for the foundational variables used in the field of sport biomechanics.
- ♣ Apply the principles of human movement as they apply to sport motion analysis.
- ♣ Demonstrate the knowledge of qualitative and quantitative performance analysis of a sport skill, exercise, or movement pattern.

## REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

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Hall, Susan *Basic Biomechanics* 9th Edition (Custom), McGraw Hill.  
 KIN 150 Worksheets - online / in-class resources

## COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

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The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Date	001 Mon. 830 – 1020 PISE 330 002 Thursday 1030 – 1230 PISE 330	Date	001 & 002 Thurs 230 - 420 PISE 330
Jan 10 / 13	Introduction to Biomechanics	Jan 13	History of Biomechanics
Jan 17 / 20	Motor Performance Analysis Anatomical Considerations	Jan 20	Movement Description
Jan 24 / 27	Equilibrium, Balance & Stability-Posture	Jan 27	Physics of Sport
Jan 31 / Feb 3	Posture Lab	Feb 3	Physics of Sport
Feb 7 / 10	Velocity / Accel Lab (Gym)	Feb 10	Exam 1
Feb 10 / 17	Projectile Motion	Feb 17	Angular Kinematics I
Feb 21 / 24	Reading Break	Feb 24	Reading Break
Feb 28 / Mar 3	Angular Kinematics II	Mar 3	Motor Performance Analysis / Sport Motion Analysis - Projects
Mar 7 / 10	Principles of Mvmt Video Analysis Lab	Mar 10	Exam 2
Mar 14 / 17	Project / Research Paper Force / FBD	Mar 17	Video Analysis - Kinovea Throwing & Jumping Lab (Gym)
Mar 21 / 24	Levers	Mar 24	Elasticity / M. Inertia / Aerodynamics / Work / Power
Mar 28 / 31	Levers Lab	Mar 31	Gait Analysis
Apr 4 / 7	Project Development	Apr 7	Project Presentations
Apr 11 / 14	Project Presentations	Apr 14	Summary and Prep for Final Exam

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced noticed is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

## EVALUATION OF LEARNING

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DESCRIPTION	WEIGHTING	DUE DATE
Lab Assignments (5% each) <ul style="list-style-type: none"><li>- Phasal Description Assignment</li><li>- Posture Assignment</li><li>- Velocity / Accel. Lab</li><li>- Lever Lab</li></ul>	20	As Announced in Class
Exam 1	15	Feb 10th
Exam 2	15	Mar 10 <sup>th</sup>
Analysis Project	25	April 14 <sup>th</sup>
Final Exam	25	During Final Exam Period
<b>TOTAL</b>	100%	

## COURSE GUIDELINES & EXPECTATIONS

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If a student is absent, ***the student*** is responsible for any information he/she missed (i.e., information related to class material, group discussions, exam format/content and dates). Students should obtain the missed information from their peers before asking the instructor.

## SCHOOL OR DEPARTMENTAL INFORMATION

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Final examinations may be scheduled at any time during the examination period by Camosun College. All students are expected to write the final exam at the time, date, and location set by the Office of the Registrar. Students should therefore avoid making prior travel, employment, or other commitments for this period. If a student is unable to write an exam through no fault of his or her own for medical or other reason(s), valid documentation must be provided, and it must be discussed with the instructor well in advance of the exam date. If the student is absent for an exam (written or practical) and has not made arrangements with the instructor in advance, a zero grade will be applied.

## STUDENT RESPONSIBILITY

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Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies;

demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

## SUPPORTS AND SERVICES FOR STUDENTS

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Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Support Service	Website
Academic Advising	<a href="http://camosun.ca/advising">http://camosun.ca/advising</a>
Accessible Learning	<a href="http://camosun.ca/accessible-learning">http://camosun.ca/accessible-learning</a>
Counselling	<a href="http://camosun.ca/counselling">http://camosun.ca/counselling</a>
Career Services	<a href="http://camosun.ca/coop">http://camosun.ca/coop</a>
Financial Aid and Awards	<a href="http://camosun.ca/financialaid">http://camosun.ca/financialaid</a>
Help Centres (Math/English/Science)	<a href="http://camosun.ca/help-centres">http://camosun.ca/help-centres</a>
Indigenous Student Support	<a href="http://camosun.ca/indigenous">http://camosun.ca/indigenous</a>
International Student Support	<a href="http://camosun.ca/international/">http://camosun.ca/international/</a>
Learning Skills	<a href="http://camosun.ca/learningskills">http://camosun.ca/learningskills</a>
Library	<a href="http://camosun.ca/services/library/">http://camosun.ca/services/library/</a>
Office of Student Support	<a href="http://camosun.ca/oss">http://camosun.ca/oss</a>
Ombudsperson	<a href="http://camosun.ca/ombuds">http://camosun.ca/ombuds</a>
Registration	<a href="http://camosun.ca/registration">http://camosun.ca/registration</a>
Technology Support	<a href="http://camosun.ca/its">http://camosun.ca/its</a>
Writing Centre	<a href="http://camosun.ca/writing-centre">http://camosun.ca/writing-centre</a>

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

## COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

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### Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the

appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

### Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

### Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

### Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

### Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

### Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

### Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures"

(<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

### Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

### Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The

Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and [camosun.ca/sexual-violence](http://camosun.ca/sexual-violence). To contact the Office of Student Support: [oss@camosun.ca](mailto:oss@camosun.ca) or by phone: 250-370-3046 or 250-3703841

### Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

**Changes to this Syllabus:** Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.