

COURSE SYLLABUS



COURSE TITLE: KIN 150 – Sport Biomechanics

CLASS SECTION: 001 | 003

TERM: 2025W

COURSE CREDITS: 3

DELIVERY METHOD(S): Lecture, Lab

Camosun College campuses are located on the traditional territories of the Ləkʷəŋən 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>.

The Kinesiology Department requires mandatory attendance for the first class meeting of each Kinesiology (KIN) course. If you do not attend and do not contact your instructor to provide a reasonable explanation in advance, you will be removed from the course and the space will be offered to the next waitlisted student.

INSTRUCTOR DETAILS

NAME: Steve Van Schubert

EMAIL: vanschuberts@camosun.ca

OFFICE: PISE 306

HOURS: Monday 10:30 – 11:30. By appointment only.

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.

INSTRUCTIONAL ASSISTANT DETAILS

NAME: Sheena Kelly

EMAIL: kellys@camosun.ca

CALENDAR DESCRIPTION

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 KIN 125 or C in BIOL 143 or C in BIOL 150

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon successful course completion, students will be able to:

- 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

REQUIRED

Course textbook: McGinnis, P. (2021). Biomechanics of Sport and Exercise – Fourth Edition. Human Kinetics.

Course worksheets and resources – available online (via D2L) and/or in-class

RECOMMENDED

Housh, D. J., Housh, T. J., & Johnson, G O. (2017). Introduction to Exercise Science (5th Edition). Routledge.

Klavora, P. (2017). Foundations of Kinesiology: Studying Human Movement and Health (3rd Edition). Kinesiology Books Publisher.

Potteiger, J. (2017). ACSM's Introduction to Exercise Science (3rd Edition). Wolters Kluwer Health.

Readings may also be assigned and/or identified throughout the course.

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

Session 001: Lecture Monday 13:30-15:20. Lab Wednesday 08:30-10:20

Session 003: Lecture Wednesday 12:30-14:20. Lab Thursday 10:30-12:20

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

WEEK	ACTIVITY or TOPIC - Lecture	ACTIVITY or TOPIC - Lab
Week 1	Introduction to Biomechanics	Introduction to Lab
Week 2	History of Biomechanics	Getting to know the Technology
Week 3	Motor Performance Analysis - Functional Anatomy	Movement Description Terminology
Week 4	Equilibrium Balance Stability Posture	Equilibrium Balance Stability Posture
Week 5	Physics of Sport	Physics of Sport
Week 6	Information Analysis Interpretation Synthesis	Mid-Term Exam
Week 7	Reading Week	Reading Week
Week 8	Angular Kinematics	Motor Performance Analysis Sport Motion Analysis
Week 9	Projectile Motion	Velocity Acceleration
Week 10	Free Body Diagrams Gait	Gait Analysis
Week 11	Levers	Levers
Week 12	Applied Physics	Applied Physics
Week 13	Project Presentations	Project Presentations
Week 14	Project Presentations	Sport Science Integration

EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING
Lab Assignments or Examinations	25%
Mid-Term Examination	20%
Analysis Project	30%
Final Exam	25%
TOTAL	100%

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 notice is required. Deadlines can be reviewed on the [CAL exams page](#).

COURSE GUIDELINES & EXPECTATIONS

Professional standards for students

- Students are expected to exhibit polite, mature and respectful behaviour in class.
- Students are expected to actively participate in class to the best of their abilities.
- Students are expected to conduct themselves in a manner that maximizes the learning of all students.
- Students are expected to dress appropriately for class/lab activities. Please bring clothes and footwear that will allow you to participate fully.
- Students are expected to maintain good personal hygiene standards for all classes. Please be considerate to others and do not wear strong perfumes or scents.
- Students will be practicing skills involving direct physical contact (such as palpation, muscle testing, exercise assistance/spotting) on each other. Students must refrain from any inappropriate touching. Students with concerns are to speak to the instructor prior to the beginning of the course or as concerns arise during the semester.
- Students are responsible for any information missed due to absence from class. Refer to course texts, course information, and classmates for information.

STUDENT RESPONSIBILITY

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

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

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.

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

Students are expected to comply with all College policy regarding academic integrity; which is about honest and ethical behaviour in your education journey. The following guide is designed to help you understand your responsibilities: <https://camosun.libguides.com/academicintegrity/welcome>
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

The Kinesiology Department requires mandatory attendance for the first class meeting of each Kinesiology (KIN) course. If you do not attend and do not contact your instructor to provide a reasonable explanation in advance, you will be removed from the course and the space will be offered to the next waitlisted student.

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. To contact the Office of Student Support: 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.

Other Policies

The full suite of College policies and directives can be found here: <https://camosun.ca/about/camosun-college-policies-and-directives>

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.