



Instructor: Dr. Walter Herzog

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Office: KNB404

Office Thursday 1400-1500

Hours:

Room: KNB214

Days: Thursday

Time: 1500-1650

Course Website: Handouts given in 1<sup>st</sup> Class

**Course Description:** 

Students attend, discuss, and critique a series of research seminars in the Human Performance Laboratory.

**Course Objectives:** 

To expose students to different biomechanics topics studied at the University of Calgary as well as around the world.

To allow students an opportunity to discuss strengths and weaknesses of a research project.

To allow students an opportunity to discuss strengths and weaknesses of oral presentations.

Required Reading
Materials:
Contacting the
Instructor:

N/A

Students requiring assistance are encouraged to speak with their instructor during class or office hours. Should you wish to meet with the instructor outside of office hours, please phone or email the instructor to make an appointment.

Email, while commonly used, does limit the effectiveness of communications and may not be the best way for instructors to answer student questions. Therefore, the instructor may request a telephone call or personal meeting. Your instructor will inform you as to his/her expectations about emails.

**Grading Scale:** 

This class will be assessed as a credit-fail. All of the requirements must be met for credit. If any of the requirements (attendance, submission of written assignments) are not met, the student will be assessed a fail. Credit/fail grade will be based on:

- Attendance at weekly seminars. Students are allowed to miss a maximum of two seminars
- Attendance at weekly tutorials following the seminar where a Biomechanics faculty member critiques and discusses the seminar presentation.
- Submission of a one page (350 words or less) initial response to selected seminars.
- Submission of short papers following discussions of specific topics.

Late Policy:

N/A

**Final Examination:** 

N/A

Additional Course Information:

See listing of upcoming seminar presentations.

The demands of this activity can be harmful to a student with physical limitations. It is the student's responsibility to inform the instructor of any physical limitations (including a recent positive PAR-Q) **prior to** participating in any activity class. Appropriate activity modifications will be made to accommodate these students.

## **Course Content:**

Sep. 20	Jan-M Brandt (Dir. Tribology - Concordia Joint Replacement Group; Assist. Prof. Dept. of Surgery, University of Manitoba)	Progress in developing a more clinically relevant lubrication for in-vitro wear testing of total knee replacements
Sep. 27	Mike Lane (MSc., Dr. Jamie Johnston)	The effects of muscle length on corticospinal excitability following local muscle vibration
Oct. 04	Christian Maurer (PDF, Dr. Benno Nigg)	Gait Variability in Whole Body Movement
Oct. 11	Marjan Eggermont (Assoc. Dean & Senior Instructor, Schulich School of Engineering)	Biomimicry - "Flock and Awe"
Oct. 18	Payam Zandiyeh (PhD, Dr. Janet Ronsky, Dr. Vincent von Tscharner) & Jen Baltich (PhD, Dr. Benno Nigg, Dr. Vincent von Tscharner)	Entropy and the assessment of centre of pressure variability during a balance task
Oct. 25	Appaji Panchangam (PDF, Dr. Walter Herzog)	The role of over-stretched sarcomeres in muscle injury
Nov. 01	Tannin Schmidt (Assist. Prof. Biomedical engineering)	Full Length Recombinant Human PRG4 – Potential Biotherapeutic Applications
Nov. 08	Jay Worobets (PDF, Dr. Darren Stefanyshyn)	Applying sport biomechanics to adidas innovations
Nov. 15	Reading week	No seminar
Nov. 22	Maria Yamamoto (MSc., Dr. Walter Herzog)	Rapid Serial Sarcomere Loss Caused By Electrical Stimulation in Rabbit Triceps Surae Muscles
Nov. 29	Christian Gasser (Prof. Dept. Solid Mechanics, KTH, Stockholm)	Constitutive modeling of vascular tissue – From basic science to clinical applications
Dec. 06	Jan Owoc (MSc., Dr. Steve Boyd)	New Developments in Non-invasive Assessment of Bone Strength
Dec. 13	Michael Samsom (MSc., Dr. Tannin Schmidt)	PRG4 as an Occular Boundary Lubricant
Please check back for	winter/spring 2013 schedule in mid Novembe	r.

Supplementary Course Information
In accordance with the University of Calgary Calendar

Accommodation
Awareness Information:

It is the student's responsibility to request academic accommodation. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the commencement of this course. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation.

Plagiarism/Cheating/Ot her Academic Misconduct: (see Calendar) A <u>single</u> offence of cheating, plagiarism, or other academic misconduct is a serious act that will not be tolerated in the Faculty of Kinesiology. Penalties for such acts will be determined by the Dean and may result in a failing grade, probation, suspension, or expulsion. Any student who is uncertain if an action falls into this category should consult the instructor and/or the Calendar.

Midterm Exam Policy:

The Faculty of Kinesiology policy is that all students are expected to write midterm exams on the dates listed on the course outline. Special accommodation may be granted by the instructor in exceptional circumstances only which include illness, participation in athletic events (varsity, national or international), domestic affliction, and religious conviction. It is the student's responsibility to supply proper documentation and/or notification prior to the originally scheduled midterm to support their circumstance. Personal travel plans and arrangements are not valid reasons for requesting a special accommodation for a midterm exam. Failure to comply with this policy will result in a grade of zero for the midterm and possible failure in the course.

**FOIP Policy:** 

Please note that the University is under the jurisdiction of the provincial Freedom of Information and Protection of Privacy (FOIP) Act. Please refer to the website for details: <a href="http://www.ucalgary.ca/secretariat/privacy">http://www.ucalgary.ca/secretariat/privacy</a>

Internet and Electronic Communication Device Information:

Any surfing of the Internet during lectures that is not directly related to the class discussion is distracting and strictly forbidden. Additionally, the use of any electronic devices (e.g., cellular phones, Blackberrys) for e-mailing, texting, etc. is strictly prohibited. Please turn OFF your phone before the beginning of each lecture.

Instructors have the authority, at the discretion of the dean of their faculty, to require that specific course assignments, term papers and academic exercises be submitted in an electronic format. Instructors cannot require that multiple copies of an assignment be submitted.

Emergency Evacuation/Assembly Points: For classes in the Kinesiology buildings Primary assembly point is the MacEwan Student Centre - North Courtyard and the Alternate assembly point is University Theatres Lobby

Safewalk Information:

Safewalk volunteers walk people safely to their destination on campus (including Health Sciences, Children's Hospital, McMahon Stadium, and University LRT station). This service is free and available to students, staff and campus visitors. Call 403-220-5333 (24 hours a day/7 days a week/365 days a year).

Student's Union:

The Kinesiology Representative is Calindy Ramsden - E-mail: kinesrep@su.ucalgary.ca.