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<b>Instructor:</b> Dr. J. N. Vickers	<b>Room:</b> KNES B132
<b>Phone:</b> 403-220-3420	<b>Days:</b> Mon-Wed-Fri
<b>Email:</b> vickers@ucalgary.ca	<b>Time:</b> 10:00-10:50
<b>Office:</b> B2230	<b>Website:</b> Blackboard
<b>Office Hours:</b> After lecture M-W-F	

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<b>Course Description:</b>	<b>Introduction to Motor Control and Learning</b> An introduction to neural and cognitive concepts underlying human behaviour in physical activity and health. Course Hours: H(3-0)
<b>Course Objectives:</b>	<b>Kinesiology 251</b> is an entry-level course in the Mind Sciences in Kinesiology major that covers topics in behavioural neuroscience, perception, cognition in motor learning and control. KNES 251 is a core course for all degree programs in Kinesiology. It provides an introduction to critical neural, cognitive and psychological research underlying human motor behaviour in physical activity, medicine, sport and health. Information taught in the course is essential for students preparing to be physical therapists, occupational therapists, doctors, teachers, coaches, instructors, human performance specialists, skill acquisition specialist, human factors, ergonomics, simulation programmers and entrepreneurs in sport and physical activity.
<b>Required Reading Materials:</b>	<b>Texts (available in the bookstore)</b> Carter, R. (2009). The Human Brain Book: An Illustrated Guide to its Structure, Function and Disorders. London:Doring Kindersley Limited. Also includes a DVD.  Vickers, J. N. (2007). Perception, Cognition and Decision Training: The Quiet Eye in Action. Champaign, IL. Human Kinetics Publishers.
<b>Contacting the Instructor:</b>	Students requiring assistance are encouraged to speak with their instructor before or after class. Office hours are immediately after class, M-W-F. Should you wish to meet with the instructor outside of office hours, please 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:**

Grade	Percent	Grade Point Value	Description
A+	90.0 - 100	4.00	Outstanding
A	85.0 - 89.9	4.00	Excellent - superior performance, showing comprehensive understanding of subject matter.
A-	81.0 - 84.9	3.70	
B+	77.0 - 80.9	3.30	
B	73.0 - 76.9	3.00	Good-clearly above average performance with knowledge of subject matter generally complete.
B-	69.0 - 72.9	2.70	
C+	65.0 - 68.9	2.30	
C	61.0 - 64.9	2.00	Satisfactory – basic understanding of the subject matter. Grade point average below 2.00 is not sufficient for promotion.
C-	57.0 - 60.9	1.70	<b>Minimum grade required if needed as a prerequisite course.</b>
D+	53.0 - 56.9	1.30	
D	49.0 - 52.9	1.00	Minimal pass – marginal performance; generally insufficient preparation for subsequent courses in the same subject.
F	0.0 - 48.9	0	Fail – unsatisfactory performance or failure to meet course requirements.

**Final letter grades are assigned at the end of the course.**

**Evaluation of Course  
Content:**

For both the midterm and the final examination students are responsible for all material assigned in the textbooks, presented in lectures or assigned on Blackboard. Directions about the content and type of examination will be provided in class prior to each examination.

**Midterm Exam - 50%**

**Date:** October 19, 7:00-8:30PM in Engineering A 201 Theatre

**Final Examination -50%**

**Date:** The final exam will occur during the examination period in December. The specific date is set by the Registrar's Office later in the Fall.

**Midterm Exam Policy:**

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

**Final Examination Policy:**

The final examination date is set by the Registrar's Office in the late Fall. Students are advised that they should not purchase airline tickets home or for vacations during the Final Examination period or make other commitments that will conflict with the final exam date.

**Additional Course Information:****Important Dates**

**First Lecture:** September 10, 2012

**No Lecture:** Monday, October 8, 2012 (Thanksgiving)

**Midterm Exam:** Wednesday, October 12, 7:00-9:00 in Engineering A 201 Theatre

**Reading Days:** No Classes November 12-13

**Last Lecture:** December 07, 2012

**Final Examination Period:** December 10-19, 2012.

## **Course Content**

### **Unit 1: Behavioural Neuroscience (Carter, 2007)**

The overall objective is for students to gain an understanding of the structure and function of the human brain and central nervous system and their role in the learning and control of motor skills.

1. Introduction to research on the human brain
2. The brain and body
3. Brian anatomy
4. Movement and control
5. Emotion and feelings
6. Memory and motor programs
7. Thinking
8. Consciousness and attention in motor skills
9. The individual brain – characteristics of the elite brain

### **Unit 2: Neuro-Motor Learning and Control (Vickers, 2007)**

The overall objective is for students to understand how perception, attention, memory and decision making influence the learning and control of motor tasks. There is an emphasis on expertise, gaze and visual attention in targeting, interceptive and tactical tasks. The latest research in motor learning, providing practice instruction and feedback is presented within the decision training model and quiet eye training models of developing motor expertise.

10. Introduction to research in motor learning and control
11. Visual system, motor control and the changing brain
12. Measuring what athletes see
13. Visual attention and motor control; the Schmidt model.
14. Gaze control, attention and motor control in targeting skills
15. Gaze control, attention and motor control in interceptive timing skills
16. Gaze control, attention and motor control in tactical skills
17. Applied motor learning: The paradox of recent research
18. Designing practices with a decision training/quiet eye focus
19. Providing feedback with a decision training/quiet eye focus
20. Providing instruction with a decision training/quiet eye focus

## Supplementary Course Information

*In accordance with the University of Calgary Calendar*

<b><u>Academic Accommodation Awareness Information:</u></b>	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 <u>not</u> eligible for formal academic accommodation.
<b><u>Plagiarism/Cheating/Other Academic Misconduct:</u></b> (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.
<b>Midterm Exam Policy:</b>	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 <b><u>exceptional circumstances only</u></b> 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 <b><u>prior</u></b> to the originally scheduled midterm to support their circumstance. Personal travel plans and arrangements are <b><u>not</u></b> 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.
<b>FOIP Policy:</b>	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>
<b>Internet and Electronic Communication Device Information:</b>	<p>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.</p> <p>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.</p>
<b>Emergency Evacuation/ Assembly Points:</b>	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
<b>Safewalk Information:</b>	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).
<b>Student's Union:</b>	The Kinesiology Representative is Calindy Ramsden - E-mail: <a href="mailto:kinesrep@su.ucalgary.ca">kinesrep@su.ucalgary.ca</a>