Western University Faculty of Health Sciences School of Kinesiology

KIN 1080B - Introduction to Psychomotor Behaviour Winter 2020

Instructor: Dr. Matthew Heath **Lectures:** M, W, F 8:30am - 9:30am

Office: 3M Centre Rm 2225 mheath2@uwo.ca Email:

Office Hrs: Wednesday, 12:30-2:30pm.

TAs: **TBA**

Health Sci Building Rm 40 Room:

NOTE: All course information including grades, assignment outlines, deadlines, etc. are available via OWL. Check the website regularly for course announcements.

Calendar Course Description (including prerequisites/anti-requisites):

Fundamental concepts and theories related to movement learning and control will be introduced. The material will address many of the factors that affect the production of motor behaviour. Students will learn about the basis for movement skill and variables that can be used to improve level of skill.

Extra Information: 3 lecture hours, 3 laboratory hours biweekly.

You are responsible for ensuring that you have successfully completed all course pre-requisites, and that you have not taken an anti-requisite course.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

NOTE: If you wish to enroll in this course without the stated pre-requisite(s), you must obtain written approval from the course instructor. The approval should then be forwarded to your academic counsellor.

Mv Course Description

To provide an overview of the neural control of human movement and how cognition and sensory feedback influence normative and pathological movement states.

Learning Outcomes/Schedule:

- To introduce students to the structure and function of the central and peripheral nervous systems: emphasis placed on relevant motor system structures.
- To understand the relevant issues associated with the measurement and evaluation of human movement neuroscience.
- To understand the cognitive- and sensorimotor factors influencing purposeful movement.
- Define the sensory systems associated with the regulation of skilled purposeful (e.g., vision, proprioception).
- To understand the neuromuscular factors influencing skilled purposeful movement.
- To acquaint students with scientific writing techniques, including the need to write succinctly yet comprehensively.

Upon completion of this course, students will be able to:

Effectively convey, in written form, fundamental knowledge of the human movement neurosciences.

Course Material/Text:

Schmidt, R. A., & Wrisberg, C. A. (2014). *Motor Learning and Performance, 5th Edition.* Champaign, IL: Human Kinetics.

This textbook is NOT required. A copy of this text has been placed on reserve at the Weldon Library. Course materials (e.g., Course Outline, Lecture Overheads, Laboratory Assignments, Assigned Readings) are exclusively available via OWL - it is your responsible to download and print these materials. Overheads should not be considered a replacement for class lectures. Supplementary reading materials will be assigned during class.

Course Content:

Note: the chapters referred to below reflect that associated with the ancillary course text identified above (i.e., Schmidt and Wrisberg, 2014)

A. Introduction to Psycho-Motor Behaviour (see lecture notes)

- 1. What is Psycho-Motor Learning?
- 2. Introduction to Motor Control and Motor Learning
- 3. Measurement and Evaluation of Motor Performance

B. The Nervous System (see lecture notes and web resources listed below)

- 1. Structure and Function of the Central Nervous System
 - Cortex
 - Basal ganglia, brain stem and cerebellum
 - Spinal cord
- 2. Structure and Function of Peripheral Nervous & Neuromuscular Systems
 - The motorneuron
 - The motor unit
 - Muscle spindles

http://www.med.harvard.edu/AANLIB/home.html http://www.pbs.org/wnet/brain/3d/index.html

C. Motor Skill Classification (Chapter 1)

- 1. Skills Classified by Task Organization
- 2. Skills Classified by Cognitive Demands
- 3. Skills Classified by Level of Predictability

D. Cognitive-Motor Factors in Human Information Processing

- 1. Attention (Chapter 3)
- 2. Memory (Chapter 3)

E. Fundamentals of Motor Control

- 1. Sensory Contributions to Motor Control (Chapter 4)
- 2. Central Contributions to Motor Control (Chapter 5)
- 3. Principles of Simple Movements (Chapter 6)

Assistance with Class Material

- 1. The preferred means for students to get assistance with course material, labs, or procedural requirements is to ask questions during lectures. Remember, it is unlikely that you are the only one with the question/problem.
- 2. A second option is to ask the course instructor or lab instructors during office hours, or before or after class. It is also possible to contact the course instructor via email; however, the sheer number of students in this course may not allow for a timely response.

3. Note: it is the student's responsibility to obtain ancillary lecture notes/materials when they have missed a class (i.e., students must get this information from a colleague in the class). The instructor will not provide an ancillary lecture in the case of a missed class.

Course Evaluation:

The course involves two tests, a final exam and two graded lab assignments. **Note: the final exam in not cumulative.**

i.	Test 1 (Friday, January 31: regular class time)	25%
ii.	Test 2 (Monday, March 9: regular class time)	25%
iii.	Final Exam (date: TBA)	35%
iv.	Lab Assignments (see Lab Outline for details)	15%

In the event a scheduled test occurs on a snow day – or other unexpected university closure – the test will be held the next regularly scheduled class.

Assignments are due as stated in the course syllabus and will not be accepted late, except under medical or other compassionate circumstances. Submitting a late assignment without appropriate documentation will result in a zero (0) grade. A missed mid-term examination, without appropriate documentation will result in a zero (0) grade. Acceptable reasons might include hospital stays, serious illness, family emergencies (like serious accidents, illness or death) or similar circumstances.

In the event that you have missed a test for a valid reason, the policy for this course is to not schedule a make-up exam. Accordingly, if you miss a test for a valid reason then your final grade will be determined from your remaining test, lab and final exam scores. It is the policy for this course that at least one Test (i.e., Test 1 or 2) be written. If a test is not written then you will not be provided a final grade at the end of the course.

Course/University Policies

1. Statement on Use of Personal Response Systems ("Clickers")

If Personal Response Systems ("Clickers") are used in the course, a reference to the Guidelines for their use (Guidelines are shown below). Instructors are to communicate clearly to students information on how clickers are used including: how the student's privacy will be protected, how clickers may be used by the instructor for data gathering and for evaluating the students, and why they cannot be used by anyone but the student (since the students involved in misuse of a clicker may be charged with a scholastic offence).

- 2. **Academic offences**: They are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf
- A) Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar). All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com http://www.turnitin.com

B) Computer marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

3. Electronic Device Usage:

During Exams - Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any of the following electronic devices during ANY of the tests, quizzes, midterms, examinations, or other in-class evaluations: calculators, cellphones, smart phones, smart watches, smart glasses, audio players or recorders of any sort, video cameras, video games, DVD players, televisions, laptop/notebook/netbook computers, flashlights or laser pointers.

During Lectures and Tutorials: Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. Please be respectful to your fellow students and turn the sound off. If the professor receives complaints from other students regarding noise or other disruptive behavior (e.g. watching videos on YouTube.com, updating your Facebook status, playing Solitaire), your classroom privileges will be revoked. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class. **Unless explicitly noted otherwise, you may not make audio or video recordings of lectures – nor may you edit, re-use, distribute, or re-broadcast any of the material posted to the course website.**

4. Health and Wellness:

Information regarding health and wellness-related services available to students may be found at http://www.health.uwo.ca/.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/) for a complete list of options about how to obtain help.

5. Support Services

There are various support services around campus and these include, but are not limited to:

- Student Development Centre -- http://www.sdc.uwo.ca/ssd/
- Student Health & Wellness -- http://www.health.uwo.ca/
- Registrar's Office -- http://www.registrar.uwo.ca/
- Ombudsperson Office -- http://www.uwo.ca/ombuds/

6. **Documentation for Academic Accommodation (Illness, Medical/Non-Medical Absences)**: http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=18SelectedCalendar=Live&ArchiveID=#Page 12

Students who experience an extenuating circumstance (illness, injury, or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) Submitting a Self-Reported Absence (see below for conditions)
- (ii) For medical absences exceeding 48 hours, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to their Academic Counselling in their Faculty of registration in order to be eligible for Academic Consideration; or
- (iii) For non-medical absences exceeding 48 hours, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to Academic Counselling in their Faculty of registration in order to be eligible for academic consideration. Students are encouraged to contact their Academic Counselling unit to clarify what documentation is appropriate.

Students seeking academic consideration must communicate with their instructors no later than **24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence.

The following conditions are in place for self-reporting of medical or extenuating circumstances:

- a. a maximum of two self-reported absences between September and April and one self-reported absence between May and August;
- b. any absences in excess of the number designated in clause a above will require students to present a Student Medical Certificate (SMC) or appropriate documentation supporting extenuating circumstances to the Academic Counselling unit in their Faculty of registration no later than two business days after the date specified for resuming responsibilities.
- c. The duration of the excused absence will be for a maximum of 48 hours from the time the Self-Reported Absence form is completed through the online portal, or from 8:30 am the following morning if the form is submitted after 4:30 pm;
- d. The duration of the excused absence will terminate prior to the end of the 48 hour period should the student undertake significant academic responsibilities (write a test, submit a paper) during that time;
- e. The duration of an excused absence will terminate at 8:30 am on the day following the last day of classes each semester regardless of how many days of absence have elapsed;
- f. Self-reported absences will not be allowed for scheduled final examinations; for midterm examinations scheduled during the December examination period; or for final lab examinations scheduled during the final week of term;
- g. Self-reporting may not be used for assessments (e.g. midterm exams, tests, reports, presentations, or essays) worth more than 30% of any given course;

For medical and non-medical absences that are not eligible for self-reporting Kinesiology students must submit an Academic Consideration Request form found online https://www.uwo.ca/fhs/kin/undergrad/files/accommodation_request.pdf in addition to an SMC or appropriate documentation in the event of a non-medical absence. These documents will be retained in the student's file, and will be held in confidence in accordance with the University's Official Student Record Information Privacy Policy.

7. **Grades**: Where possible assignment objectives and rubrics will be posted on OWL. Should you have a concern regarding the grade you received for an assignment or feel that it is unfair in any way, you must wait 24 hours from the receipt of the assignment to approach the instructor or TA. In doing so, please make an appointment and prepare in writing, with evidence, why you feel your grade is inappropriate. Please be aware that in requesting a grade reassessment, your grade could go up/down/or stay the same. Note that calculations errors (which do occur!) should be brought to my attention immediately.

At least three days prior to the deadline for withdrawal from a 1000- or 2000-level course without academic penalty, students will receive assessment of work accounting for at least 15% of the final grade.

- □ November 9th, 2019 (for first term half-courses)
- □ November 27th, 2019 (for full-year courses)
- □ March 4th, 2020 (for second term half-or full year courses)

Α+	90-100	One could scarcely expect better from a student at this level
Α	80-89	Superior work that is clearly above average
В	70-79	Good work, meeting all requirements and eminently
С	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable.
F	below 50	Fail

Rounding of Grades (for example, bumping a 79 to 80%):

This is a practice some students request. **This practice will not occur here.** The edges of this course are clear and sharp. The mark attained is the mark you achieved and the mark assigned; there is no rounding to the next grade level, or 'giving away' of marks. <u>Please do not provide requests for a grade 'bump"</u>; the response will be "please review the course outline where this is presented".

8. **Classroom Behaviour**: Class will begin promptly at the time specified at the top of page one of this syllabus. In the event that you must arrive late, please enter the classroom with a minimal disturbance to the class. Please keep all electronic devices on silent and avoid distracting classmates.

In this class, examples of disruptive behaviour include:

- 1. Eating in class.
- 2. Class ENDS at 9:20 am. Hence, it is not appropriate for a student to begin packing up their class materials before that time. If a student makes a habit of this, and it is recognized that it disrupts the class, then one warning will be provided. A subsequent infraction will be reported to the appropriate Director's/Dean's Office for academic sanction, or sanctions.
- 3. Talking to your neighbour during class. This is a big class, I strongly urge you to refrain from this activity. I will provide individual students with one warning involving in-class talking. A second offense will be reported to the appropriate Director's/Dean's Office for academic sanction, or sanctions. In this class examples of behaviour that will not be tolerated included.

9. Student Code of Conduct

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed and set out the disciplinary procedures that the University will follow. For more information, visit https://www.uwo.ca/univsec/pdf/board/code.pdf