Western University Faculty of Health Sciences School of Kinesiology

KIN 1080B - Introduction to Psychomotor Behaviour Winter 2022

Instructor: Dr. Matthew Heath Email: mheath2@uwo.ca
Office Hrs: Wednesday: via Zoom

1:00 to 2:00 pm sign-up office hours 2:00 to 3:00 pm drop-in office hours

TAs: TBA

Instruction Mode: Blended

Monday, Wednesday: 8:30 - 9:20 am in-

person in HSB-40

Friday: online, asynchronous

NOTE: All course information, including Friday online lectures, 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 impacting the production of voluntary movement. Students will learn about the basis for movement skill and variables that can be used to improve level of skill.

Prerequisite(s): None.

Extra Information: 3 lecture hours per week (in-person and online).

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.

My 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.

Copyright:

The course instructor owns the intellectual property and asserts copyright protection over the lecture videos and all course materials. Accordingly, you may stream – but not download or record – lecture videos and you may not post or repurpose lecture materials (e.g., overheads, discussion questions, practice questions etc.).

Learning Outcomes/Schedule:

Upon completion of this course students will be able to:

- Identify and understand central nervous system structure and function emphasis on relevant motor system structures.
- Understand relevant issues associated with measurement and evaluation in the human movement neurosciences.
- Describe the cognitive and sensorimotor factors influencing purposeful movement.
- Define the sensory systems associated with the regulation of skilled movement (e.g., vision, proprioception).

- Describe the neuromuscular factors influencing skilled movement.
- Write succinctly yet comprehensively.

Course Material/Text:

A textbook is NOT assigned. Course materials (e.g., Course Outline, Lecture Overheads, Assigned Readings) are available via OWL - it is your responsibility to download these materials.

Course Evaluation:

1.	Test 1 (January 26: 8:00 am EST open and 9:20 am EST close)	25%
2.	Test 2 (March 2: 8:00 am EST open and 9:20 am EST close)	25%
3.	Final Exam (date: TBA)	30%
4.	Discussion Assignments (see below for details)	20%

Test 1 and 2 are 40-min in duration. You may start the test (via OWL) at any point after the 8:00 am EST start time and will have 40-min to complete. The test site closes at 9:20 am EST. Thus, if you chose to start the test at 9:10 am EST you will only have 10-min to complete.

Discussion Assignments are due as stated in the WEEKLY LECTURE PLAN (see OWL for details) and as stated in each weekly OWL to-do list. Assignments will not be accepted late except under medical or other compassionate circumstances. Submitting a late assignment without appropriate documentation will result in a grade of zero. A missed test, without appropriate documentation will result in a grade of zero. See below, **Documentation for Academic Accommodation (Illness, Medical/Non-Medical Absences).**

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 test. Accordingly, if you miss a test for a valid reason then your final grade will be determined from your remaining test, discussion assignments 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 at least one test is not written, you will not be provided a final grade at the end of the course.

Distribution of Student Load:

In-person lectures: ~100 min/wk
Friday online lectures: ~20 min/wk
Private study and discussion assignments: ~60 min/wk

Course Content:

- A. Introduction to Psycho-Motor Behaviour and the Movement Neurosciences
 - 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
 - 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
 - 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
 - 2. Memory
- E. Fundamentals of Motor Control
 - 1. Sensory Contributions to Motor Control
 - 2. Central Contributions to Motor Control
 - 3. Principles of Simple Movements

Assistance with Class Material:

- 1. The instructor will hold weekly sign-up and drop-in Zoom meetings (see above Instructor Office Hours). As well, teaching assistants will provide drop-in Zoom meetings related to discussion assignments. The Zoom meetings serve as the preferred means for assistance with course materials.
- 2. An email to the instructor or teaching assistant is not a preferred means of communication.

Email Policy:

- 1. Who to contact for your concerns or questions: If you have a question, please <u>first consult this syllabus and the course website</u>; there is a good chance your question can be answered through these resources, especially regarding course logistics or content (e.g., deadlines, assignments, course materials). You are also encouraged to use the forum on OWL to post questions to your peers and check to see if your question has already been answered. If you cannot find an answer to your question on the syllabus or course website, you may contact the instructor; however, and as indicated above the preferred means of contact is via office hours.
- 2. *Email inquiries to instructor:* For all email responses, please permit 24 hours before a response can be expected (i.e., you are unlikely to receive a response the night before a test/assignment). It is encouraged that view any email as your chance to practice professionalism. Consider that your communication style is a direct reflection of you as a person. Hence, when sending an email include appropriate salutation and valediction and ensure proper syntax, grammar and punctuation.

Discussion Assignments:

This component of the course contributes 20% to your final grade. The timeline and due dates for discussion assignments are found on the WEEKLY LECTURE PLAN (see OWL for details). Completed assignments are to be posted to your OWL discussion board prior to 4:30 pm EST on the due date. If you do not post your assignment prior to the 4:30 pm EST due date (without appropriate accommodation), then you will receive a grade of zero for that assignment. There are no exceptions to this course rule.

NOTE: there are nine discussion assignments, and you are required to complete seven. You can complete all nine assignments, and in such a case the nine assignments with the highest grade will be used to derive your grade.

Discussion assignments are predicated on the completion of readings and/or videos. For example, for your first discussion assignment you will read a research article involving concussion in sport and answer questions related to the article. For this, and subsequent assignments, you will post your answers to your assigned small group OWL discussion board. Each group will have approximately 25 members. The goal of this component is to: think critically; synthesize information; write efficiently and effectively; and critique the work of others.

For each discussion assignment your answers posted to OWL will be graded by your assigned TA, and each assignment is evaluated out of 10 points. The discussion board will allow you to comment/interact with the answers of your group members and this board will be moderated by the TA.

Each discussion assignment will be evaluated out of 10 points. The breakdown of the 10-point evaluation is as follows:

- 4 points awarded based on writing efficiency and effectiveness (i.e., writing quality),
- 5 points awarded based on the answer content and/or synthesis (i.e., did you answer the question correctly?) and,
- 1 point awarded based on integration of external evidence supporting your answer and/or position statement.

Sample answers and a rubric guide for discussion assignments is available in the Course Orientation > Discussion Group Assessment OWL tab.

Course/University Policies

1. Test and Exam Policy

Tests and examinations in this course may be conducted using Zoom.

When Zoom is used for exam invigilation, you will be required to keep your camera on for the entire session, hold up your student card for identification purposes, and share your screen with the invigilator if asked to do so at any time during the exam. The exam session using Zoom will **not** be recorded.*

https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf.

Completion of this course will require you to have a reliable internet connection and a device that meets the system and technical requirements for Zoom. Information about the system and technical requirements are available at the following links:

https://support.zoom.us/hc/en-us.

- * Please note that Zoom servers are located outside Canada. If you would prefer to use only your first name or a nickname to login to Zoom, please discuss this with your instructor in advance of the test or examination.
- 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 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/assignments 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/assignments 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. 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.

4. Support Services:

There are various support services around campus,6 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/

5. Accommodation Policies:

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: Academic Accommodation for Students with Disabilities.

6. Documentation for Academic Accommodation (Illness, Medical/Non-Medical Absences): http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=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 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.

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar.

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: calculation errors (which do occur!) should be brought to the instructor's 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.

□ March 2nd, 2022 (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. 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

For this large first-year course there are a number of instructor-specific policies and procedures that you must follow:

- Eating and drinking in class is not permitted
- Entering class late. In-person lectures begin at 8:30 am. You should be in your seat and

- prepared for lecture before 8:30 am. If you have to enter late make sure you sit, or will sit, in an aisle seat near the back of the classroom. Do not make this a habit. Repeated offences will be reported to the appropriate Director's/Dean's Office for academic sanction(s).
- Leaving class early. In-person lectures end at 9:20 am. Hence, it is expected that you remain in the classroom until that time and do not begin packing away your belongings before the specified end of class. Such behaviour is disruptive to other students. Do not make this a habit. Repeated offences will be reported to the appropriate Director's/Dean's Office for academic sanction(s).
- Talking to your neighbour(s) during lectures. This is a big class, and the instructor requires
 that you refrain from this activity. Sound travels very well in the HSB-40 lecture hall and as a
 result this behviour is disruptive to other students and to the instructor. Without a doubt the
 instructor will not tolerate this behavior and repeated offences will be reported to the
 appropriate Director's/Dean's Office for academic sanction(s).
- The use of electronic equipment for purposes other than enhancing the learning environment (e.g., watching a movie, playing a video game, messaging etc.) is not permitted. This behaviour is disruptive to other students in the class. Repeated offences will be reported to the appropriate Director's/Dean's Office for academic sanction(s).
- Audio, video and/or photographic recording of lectures is not permitted.
- You may not reproduce or share course materials (e.g., lecture overheads).

9. Netiquette for online discussions

This course entails online discussion and critiquing of student responses. For that reason, it is important to use appropriate language for online discussion. Accordingly,

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing/critiquing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. "Flaming" is never appropriate.
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately.

Inappropriate online behavior may be subject to disciplinary measures under the Code of Student Conduct.

10. Examination conflicts:

A student with examinations having flexible submission times (e.g., where one or more examination is a take-home examination) cannot request alternative arrangements unless a conflict cannot be avoided by rescheduling writing the exam to a different time within the window specified by the instructor. This applies to direct conflicts as well as "heavy load" conflicts (e.g., three exams within a 23-hour period). The student should discuss any concerns about a potential conflict and/or request accommodation with their academic counselling unit prior to the deadline to drop a course without academic penalty.

In the case of online examinations, an "Examination Conflict Room," which may be assigned when a student is scheduled to write two proctored exams concurrently, will be interpreted as arrangements for continuous proctoring.