

Western University Faculty of Health Sciences School of Kinesiology



KIN 1080B - Introduction to Psychomotor Behaviour Winter 2025

Instructor: Dr. Matthew Heath	Instruction Mode: Blended (in-person and	
Email: mheath2@uwo.ca	online asynchronous)	
Office Hours: TAs: TBA	 Monday and Wednesday: in-person (see Office of the Registrar for time and location). 	
	Friday: online, asynchronous with lecture posted to OWL.	

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 neuroscience 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 lectures, 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:

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 and describe 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.

Required 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 (DATE TBD: 8:30 am EST)	25%
2. Test 2 (DATE TBD: 8:30 am EST)	25%
3. Final Exam (DATE TBD)	30%
4. Discussion Assignments (see below for details)	20%

Test 1 and 2 will be completed online. You may begin the test (via OWL) at any point after the 8:30 am (London, ON time zone) start time and will have 40-min to complete. The test site closes at 9:10 am (London, ON time zone). Thus, if you chose to start the test at 9:00 am (London, ON time zone) you will only have only 10-min to complete the assessment. Test 1 and 2 will be completed in your home residence or dorm room (or other quiet personal space). Test 1 and 2 – as well as the Final Exam – are not cumulative. Note: for students with an accommodation, additional time will be built into your Test 1 and 2 writing times.

Discussion Questions assignments are due as stated in the table below (and as indicated in the WEEKLY LECTURE PLAN provided on the OWL course page). 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, **Course/University Policies >** *Academic Consideration.*

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 question 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 current semester.

There are not make-up dates for Test 1 or 2. If you miss a test and have a documented accommodation then your final grade will be re-weighed without the 25% assignment for the missed test (i.e., if you miss Test 1, then your performance on Test 2 (worth 25 points), Final Exam (worth 30 points) and Discussion Assignments (worth 20 points)) will be used to derive your grade.

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

Discussion Question Assignments:

This component of the course contributes 20% to your final grade. Completed assignments are to be uploaded to OWL prior to 4:30 pm (London, ON, local time zone) on the due date. If you do not upload your assignment prior to the 4:30 pm (London, ON, local time zone) 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 five Discussion Question assignments, and you are required to complete four. You can complete all five assignments, and in such a case the four assignments with the highest grade will be used to derive your grade.

Discussion Question assignments are predicated on reading original research or theory-based articles and answering article-specific questions. 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 upload your answers to OWL. The goal of this course component is to: think critically; synthesize information; write efficiently and effectively; and critique the work of others.

For Discussion Question assignments, <u>each assignment question</u> will be evaluated out of 5 points. When submitting your assignment, only "in-line" responses will be permitted (i.e., copy and paste your answers to the OWL text board).

The breakdown of the 5-point evaluation for each article question is:

- 2 points awarded based on writing efficiency and effectiveness (i.e., writing quality),
- 3 points awarded based on the answer content and/or synthesis (i.e., did you answer the question correctly?)

Assignment #	Article	Due Date
1	ТВА	TBD
2	ТВА	TBD
3	ТВА	TBD
4	ТВА	TBD
5	ТВА	TBD

Communication:

Office hours & appointments: If you have questions about course material or would like to discuss issues related to the course in more detail the preferred means is to discuss during instructor office hours or discuss before or after in-person lectures. It is also possible to email the instructor regarding a question; however, sending a question via email does not ensure a prompt response (Note: emails must be sent from student's official uwo.ca email account).

Email Policy:

Who to contact for your concerns or questions: If you have a question, please <u>first consult this</u> <u>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, and course material). 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 or before/after lecture.

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 you view any email as an opportunity to practice professionalism. Consider that your communication style is a direct reflection of you as a person/professional. Hence, when sending an email include appropriate salutation and valediction and ensure proper syntax, grammar and punctuation.

Course/University Policies

1. The website for Registrarial Services is <u>http://www.registrar.uwo.ca</u>.

In accordance with <u>policy</u>, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

2. Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, in the <u>Academic Calendar</u> (westerncalendar.uwo.ca).

Plagiarism

Student work is expected to be original. Plagiarism is a serious academic offence and could lead to a zero on the assignment in question, a zero in this course, or your expulsion from the university. You are plagiarizing if you insert a phrase, sentence or paragraph taken directly from another author without acknowledging that the work belongs to him/her.

Similarly, you are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. All 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 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 (www.turnitin.com).

Re-submission of Previously Graded Material

Without the explicit written permission of the instructor, you may not submit any academic work for which credit has been obtained previously, or for which credit is being sought, in another course or program of study in the University or elsewhere.

Use of Statistical Pattern Recognition on Multiple Choice Exams

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. Use of Electronic Devices

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 electronic devices during ANY tests, quizzes, midterms, examinations, or other in-class evaluations.

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. 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** <u>explicitly</u> noted otherwise, you may <u>not</u> 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.

Personal Response Systems ("clickers") may be used in some classes. For those classes in which we use this technology, it is your responsibility to ensure that the device is activated and functional. You must speak with the course instructor immediately, if you have any concerns about whether or not your clicker is malfunctioning.

You must use only your own clicker. For all components of this course in which clicker records are used to compute a portion of the grade:

- The use of somebody else's clicker in class constitutes a scholastic offence;
- The possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offense

4. Academic Considerations and Absences from Lectures and Assessments

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request (in writing) any necessary academic considerations at least two weeks prior to the holiday to the academic counsellors in their Home Department. Additional information is provided in the <u>Western Multicultural Calendar</u>.

Academic Accommodation

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. Students

with ongoing accommodation needs within this course are also encouraged to contact <u>Accessible Education</u>, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found <u>here</u>.

Academic Consideration

The University recognizes that a student's ability to meet their academic responsibilities may, on occasion, be impaired by extenuating circumstances that are medical or compassionate in nature. These extenuating circumstances may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. In all cases, students are advised to consult with the academic counsellors in their home units, at their earliest opportunity. Academic counsellors may refer students to <u>Accessible Education</u> for ongoing academic accommodations.

Most forms of academic consideration require documentation, and this documentation is to be submitted to academic counsellors within five (5) business days of their return to academic responsibilities. Any such documents will be retained in the student's file, and will be held in confidence in accordance with the University's <u>Official Student Record Information Privacy Policy</u>. Once the petition and supporting documents have been received and assessed, appropriate academic considerations shall be determined by academic counseling, in consultation with the student's instructor(s). Academic considerations may include extension of deadlines, waiver of attendance requirements for classes/labs/tutorials, arranging Special Exams or Incompletes, re-weighting course requirements, or granting late withdrawals without academic penalty. Academic considerations shall be granted only where the documentation indicates that the onset, duration and severity of the illness are such that the student could not reasonably be expected to complete their academic responsibilities. (Note – it will not be sufficient to provide documentation indicating simply that the student "was seen for a medical reason" or "was ill.").

Whenever possible, students who require academic considerations should provide notification and documentation in advance of due dates, examinations, etc. Under no circumstances are students expected to submit rationales for (or documentation of) any absences, to course instructors. Students are, however, required to follow-up with course instructors, in a timely fashion, to identify the ways in which the academic consideration will be implemented.

Examination Conflicts

A student completing tests or examinations with flexible submission times (e.g., where one or more evaluation is a take-home assessment) 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 academic considerations with their academic counselling unit prior to the deadline to drop a course without academic penalty

In the case of online tests and examinations, use of a "Conflict Room," wherein student can write two proctored exams concurrently, will be interpreted as arrangements for continuous proctoring.

<u>Per University policy</u>, makeup examinations for final exams (i.e., during the December and April exam periods) are held on the Thursday of the first week of classes in January (for first-term courses) or on the second Thursday in May (for full courses and second-term courses), excepting when a change to this date is approved by the Associate Dean. Typical practice within the FHS is for Schools to collaborate in setting FHS special examination dates, and seek approval for these dates prior to the examination period.

5. Contingency Plan for an In-Person Class Pivoting to 100% Online Learning

In the event of a situation that requires this course to pivot to online content delivery, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

6. Online Proctoring

Tests and examinations in this course may be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: <u>https://remoteproctoring.uwo.ca</u>.

7. Grades

Where possible assignment objectives and rubrics will be posted on OWL. Generally, students can expect some form of feedback on their performance in a course before the drop date.

- November 13th, 2023 (for first term half-courses)
- □ November 30th, 2023 (for full-year courses)
- □ March 7th, 2024 (for second term half-or full year courses)

A+	90-100	One could scarcely expect better from a student at this level
А	80-89	Superior work that is clearly above average
В	70-79	Good work, meeting all requirements and eminently satisfactory
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. The final grade documented is the grade that you have achieved. There is no rounding to the next grade level, or 'giving away' of marks. <u>Please</u> do not request the instructor to adjust your grade; the response will be "please review the course outline where this is presented".

Appealing a Grade Within this Course

You have the right to appeal any grade within this course. The grounds for a grade appeal may be one or more of: medical or compassionate circumstances, extenuating circumstances beyond the student's control, bias, inaccuracy, or unfairness. All grounds advanced in a request for relief must be supported by a clear and detailed explanation of the reasons for the request together with all supporting documentation.

Appeals generally proceed in this order:

- 1. Course instructor (informal consultation)
- 2. Department Chair (submission of written request)
- 3. The Dean of the Faculty (submission of written request)

In the case of perceived procedural unfairness, steps 2 and 3 are carried out within the Department and Faculty offering the course. In the case of extenuating medical or

compassionate circumstances that impact on a grade, steps 2 and 3 are carried out within a student's Home Department and Faculty.

A request for relief against a mark or grade must be initiated with the instructor as soon as possible after the mark is issued. In the event that the instructor is not available to the student, or fails to act, or if the matter is not resolved satisfactorily with the instructor, a written request for relief must be submitted to the Chair of the Department within three weeks of the date that the mark was issued. In the case of a final grade in a course, the written request for relief must be submitted to the Chair of the department by January 31st (for first-term half courses) or June 30th (for second-term half courses or full-year courses

8. Support Services

Health and Wellness:

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

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

There are various support services around campus and these include, but are not limited to: *Student Development Centre -- <u>http://www.sdc.uwo.ca/ssd/</u> <i>Ombudsperson Office -- <u>http://www.uwo.ca/ombuds/</u>*

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

10. Online Etiquette

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

- please "arrive" to class on time
- please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
- to minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- In order to give us optimum bandwidth and web quality, please turn off your video camera for the entire class unless you are invited to speak
- please be prepared to turn your video camera off at the instructor's request if the internet connection becomes unstable
- unless invited by your instructor, do **not** share your screen in the meeting

The course instructor will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

- if you wish to speak, use the "raise hand" function and wait for the instructor to acknowledge you before beginning your comment or question
- remember to unmute your microphone and turn on your video camera before speaking
- self-identify when speaking.
- remember to mute your mic and turn off your video camera after speaking (unless directed otherwise)

General considerations of "netiquette":

- 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.
- 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.

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

- 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 enter late make sure you sit, or will sit, in anaisle 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 behaviour 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).

Use of Artificial Intelligence (AI):

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and engage in original research to synthesize and develop their own ideas, arguments, and perspectives. The use of AI tools can serve as a starting point for exploration, with students expected to uphold academic integrity by appropriately attributing all sources and avoiding plagiarism. Assignments and/or lab reports should reflect the student's own thoughts and independent written work. By adhering to these guidelines, students contribute to a responsible and ethical learning environment that promotes critical thinking, independent inquiry and allows them to produce original written contributions.