ORIGINAL COURSE IMPLEMENTATION DATE:	January 1994
REVISED COURSE IMPLEMENTATION DATE:	September 2018
COURSE TO BE REVIEWED: (six years after UEC approval)	March 2024

Course outline form version: 09/15/14

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: KIN 368	**Number of Credits:** 4 Course credit policy (105)
Course Full Title: Advanced Motor Learning and Control **Course Short Title (if title exceeds 30 characters):** Adv Motor Learning & Control	
Faculty: Faculty of Health Sciences	**Department (or program if no department):** Kinesiology

Calendar Description:

An in-depth consideration of the principles of motor learning and control with applications drawn to the teaching of motor skills in physical education, sport, and other physical activity situations.

Note: Students with credit for KPE 368 cannot take this course for further credit.

Prerequisites (or NONE):	KIN 268 (formerly KPE 268).
Corequisites (if applicable, or NONE):	NONE
Pre/corequisites (if applicable, or NONE):	NONE

Equivalent Courses (cannot be taken for additional credit)

Former course code/number: **KPE 264, KPE 368**

Cross-listed with:

Equivalent course(s): **KPE 264, KPE 368**

Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.

Transfer Credit

Transfer credit already exists: ☐ Yes ☒ No

Transfer credit requested (OReg to submit to BCCAT):
☒ Yes ☐ No (if yes, fill in transfer credit form)

Resubmit revised outline for articulation: ☐ Yes ☐ No

To find out how this course transfers, see **bctransferguide.ca.**

Total Hours: 60

Typical structure of instructional hours:

Lecture hours	45
Seminars/tutorials/workshops	
Laboratory hours	15
Field experience hours	
Experiential (practicum, internship, etc.)	
Online learning activities	
Other contact hours:	
Total	**60**

Special Topics

Will the course be offered with different topics?
☐ Yes ☒ No

If yes, different lettered courses may be taken for credit:
☐ No ☐ Yes, repeat(s) ☐ Yes, no limit

Note: The specific topic will be recorded when offered.

Maximum enrolment (for information only): 36

Expected frequency of course offerings (every semester, annually, every other year, etc.): twice annually

Department / Program Head or Director: Alastair Hodges	**Date approved:**	October 2017
Faculty Council approval	**Date approved:**	October 2017
Campus-Wide Consultation (CWC)	**Date of posting:**	November 24, 2017
Dean/Associate VP: Joanne MacLean	**Date approved:**	October 2017
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	March 23, 2018

Learning Outcomes

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

1. Describe effective research methodology and the links between theory, experimentation and practice
2. Discuss various theories and models proposed to explain the process and nature of learning
3. Explain the structure and function of human memory
4. Structure an environment that will, from a theoretical perspective, optimize motor learning and performance
5. Identify the elements of neuro-muscular integration which evolve from the learning process and form the basis for human motor control
6. Explain components of the central nervous system and the effects of disease on these structures
7. Demonstrate ability to conduct experiments in motor learning and control in a laboratory setting

Prior Learning Assessment and Recognition (PLAR)

☒ Yes ☐ No, PLAR cannot be awarded for this course because

Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)

Lecture, laboratories, demonstrations, small group practice, discussion, audiovisual presentation

Grading system: Letter Grades: ☒ Credit/No Credit: ☐ Labs to be scheduled independent of lecture hours: Yes ☒ No ☐

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials (if more space is required, download Supplemental Texts and Resource Materials form)

	Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1.	Schmidt, R.A. & Wrisberg, C.A.	Motor Learning and Performance	☒	Human Kinetics	2004
2.	Magill, R.A.	Motor Learning Concepts and Applications	☒	McGraw-Hill	2001
3.	Shumway-Cook, A. & Wollacott, M.H.	Motor Control: Translating Research into Clinical Practice	☒	Wolters Kluwer	2012
4.		Course pack of required readings for labs	☐		

Required Additional Supplies and Materials (software, hardware, tools, specialized clothing, etc.)

Typical Evaluation Methods and Weighting

Final exam:	30%	Assignments:	20%	Midterm exam:	20%	Practicum:	%
Quizzes/tests:	%	Lab work:	30%	Field experience:	%	Shop work:	%
Other:	%	Other:	%	Other:	%	Total:	100%

Details (if necessary):

Typical Course Content and Topics

1. Introduction to motor learning
   a. the scientific approach to understanding motor skill learning
      i. scientific method
      ii. measurement issues
   b. the nature of the learning process
      i. models of motor learning
      ii. research and the stage of learning concept
   c. theoretical perspectives on learning
      i. behaviourist Perspectives
      ii. cognitive Perspectives
      iii. dynamic Perspectives
   d. transfer of learning
      i. definitions
      ii. measuring Transfer
      iii. theoretical basis of transfer
   e. memory
      i. models of memory
      ii. process of forgetting
      iii. process of retention
   f. attention
      i. models of attention
      ii. decision-making and attention
      iii. response preparation

2. Structuring the learning environment
    a. pre-performance considerations
        i. verbal instructions
        ii. use of observational learning techniques
    b. performance considerations
        i. organizational variables
            - variety
            - amount
            - spacing
        ii. specificity of practice
        iii. fatigue
        iv. mental rehearsal
    c. post-performance considerations
        i. augmented information feedback

3. Motor control
    a. structure and function of the nervous system
        i. neuroanatomy
        ii. neurophysiology
    b. models of human movement control
        i. open and closed-loop systems
        ii. theories of movement control
    c. sensory-perceptual influences on movement control
    d. motor control theory applications