



KNES-102 – Introduction to Motor Skill Acquisition

Health and Human Services

Effective Term & Year: Fall 2025
Course Outline Review Date: 2030-03-01

Program Area: Health

Description:

This course is an introductory examination of motor skill acquisition, the variables which influence the learning and performance of motor skills, and the relationship between skill acquisition and growth and development. The course examines various fields for information that may help in the understanding of how motor skills are acquired.

Program Information:

This course is a required course in the Kinesiology Diploma Program and may be used as an elective for students in other disciplines.

Delivery Methods: On-campus (Face-to-Face)

Credit Type: College of the Rockies Credits

Credits: 3

Course type/s: Sciences, Social Sciences

Instructional Activity and Hours:

Activity	Hours
Classroom, Directed Studies or Online Instruction	45
Seminar/Tutorials	
Laboratory/Studio	
Practicum/Field Experience	
Co-op/Work Experience	

Other

Total	45
-------	----

Course Requisites:

- Earned a minimum grade of C- (55%) in at least 1 of the following:
 - [ENST 12](#) – English Studies 12
 - [ENFP 12](#) – English First Peoples 12
 - [ENGL090](#) – English – Provincial Level

Prior Learning and Recognition: Yes

Students are able to request formal recognition of their prior learning or experience outside the classroom. Challenge examination, portfolio-assisted assessment, work-based assessment or a combination of assessments that is appropriate to identify, assess, and recognize prior skills, competencies, and knowledge to achieve course credit. Tuition fees apply, refer to [Policy 2.5.5 Prior Learning Assessment and Recognition \(PLAR\)](#) or contact an education advisor for more information.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at either British Columbia or Alberta institutions, please see <https://www.bctransferguide.ca/> or <https://transferalberta.alberta.ca> . For more transfer credit information, please visit <https://www.cotr.bc.ca/Transfer>

All requests for course transfer credit from institutions in British Columbia or elsewhere should go to the College of the Rockies Enrolment Services office.

Textbook Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Magill, R. & Anderson, D. (2020). *Motor learning & control: Concepts and applications* (12th ed.). McGraw-Hill.

Please see the instructor's syllabus or check COTR's online text calculator <https://textbook.cotr.bc.ca/> for a complete list of the currently required textbooks.

Learning Outcomes:

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

- classify motor skills and define common terms;
- describe techniques used to evaluate motor skill performance;
- identify the parts of the nervous system most directly involved in the control of movement and describe their primary functions;
- compare motor control theories and apply them to motor skills;
- identify key sensory structure for vision, touch and proprioception, and describe how sensory information impacts voluntary movement and motor skill performance;
- describe the role of attention in motor control and motor learning;
- describe the stages of learning and the changes that occur in the learner as a result of practice;
- assess motor learning and the transfer of learning;
- identify characteristics of an individual that influence the learning and performance of motor skills;
- identify conditions that influence motor skill acquisition;
- explain how developmental and physical growth characteristics influence the learning and performance of motor skills;
- explain the role of cognition, attention and memory in motor learning;
- explain the role of feedback in the learning of a motor skill; and
- describe and apply practice techniques and practice organization to optimize learning.

Course Topics:

- **Unit 1 Introduction to Motor Skills and Abilities**
 - The classification of motor skills
 - Motor abilities
 - Measurement of motor performance
 - EMG, brain activity measures, muscle coordination
 - Kinematics (displacement, velocity, acceleration)
 - Kinetics (forces)
- **Unit II Introduction to Motor Control**
 - Motor control theories
 - Performance and motor control characteristics
 - Nervous system
 - Neural pathways
 - Neurons
 - Motor unit recruitment
 - Relationship to the control of movement
 - Sensory component of motor control
 - Proprioception, touch and vision

- Action preparation
- **Unit III Attention and Memory**
 - Attention as a limited capacity resource
 - Memory components, forgetting and strategies
- **Unit IV Introduction to Motor Skill Learning**
 - Defining and assessing learning
 - The stages of learning
 - Transfer of learning
- **Unit V Instruction and Augmented Feedback**
 - Demonstration and verbal instructions
 - Augmented Feedback
- **Unit VI Practice Conditions**
 - Practice variability
 - The amount and distribution of practice
 - Whole and part practice
 - Mental practice

See instructor's syllabus for the detailed outline of weekly readings, activities and assignments.

Evaluation and Assessments

Assessment Type: On-Campus (face-to-face)

Assessment Type	% of Total Grade
Assignments	45%
Unit Exams	30%
Final Exam	25%
Total	100%

Grade Scheme

A+	A	A-	B+	B	B-	C+	C	C-	D	F
>=90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	<50

Evaluation Notes: A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

Exam Attendance:

Students must attend all scheduled exams at the appointed time and place. Instructors may approve an alternate exam to accommodate an illness or personal crisis. Department heads will consider other written requests. Any student who misses a scheduled exam without prior

approval will receive a “0” on the exam.

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.1.4 Course Audit
 - Policy 2.4.1 Credential Framework
 - Policy 2.4.3 Students with Documented Disabilities
 - Policy 2.4.4 Student Rights, Responsibilities and Conduct
 - Policy 2.4.8 Academic Performance
 - Policy 2.4.9 Student Feedback and Concerns
 - Policy 2.4.11 Storage of Academic Works
 - Policy 2.5.3 Student Appeal
 - Policy 2.5.5 Prior Learning Assessment and Recognition (PLAR)
-

Equivalent Course(s) and Course Code Changes

Prior Course Code: HKIN 102 >> KNES 102

Date changed: September 2012

Course Changes:

The College of the Rockies updates course outlines regularly to meet changing educational, employment and marketing needs. The instructor will notify students in writing of any updates to this outline during the semester. The instructor reserves the right to revise, add or delete material while meeting the learning outcomes of this course outline.