

Philadelphia University	 PHILADELPHIA UNIVERSITY THE WAY TO THE FUTURE	Approval date:8-10-2025
Faculty: Allied Medical Sciences		Version: 1
Department: Physiotherapy		Credit hours: 1
Academic year 2025/2026		Bachelor

Course information

Course#	Course title	Pre-requisite	
1120340	Motor control and learning		
Course type		Class time	Room #
☐ University Requirement ☐ Faculty Requirement ☒ Major Requirement ☐ Elective ☐ Compulsory		Sun 20:00-21:00	On line

Course Level*	Hours No.*
☒ 6 th ☐ 7 th ☐ 8 th ☐ 9 th	1

Instructor Information

Name	Office No.	Phone No.	Office Hours	E-mail
Dr. Mohamed Ali	61-214	2319	Sat 9:15-11:15 Sun 8:15-10:15 Mon 9:15-11:15	mabdullah@philadelphia.edu.jo

Course Delivery Method

Course Delivery Method			
☐ Physical	☒ Online	☐ Blended	
Learning Model			
Precentage	Synchronous	Asynchronous	Physical
			100%

Course Description

This course introduces students to major concepts within motor control and learning, gross motor development across lifespan. Both behavioral and neural levels of analyses will be discussed. The focus of this course is: review recent literature on motor learning, motor control, and motor performance, theories of motor learning and control, Stages of motor skills acquisition, strategies of learning retention and discuss their implications for physical therapy. neurological processes underlying efficient movement, general contribution to motor control, principles of skill acquisition and their application to learning and teaching of motor skills, Sensory and motor perception development, Cognitive and socioemotional development analysis of motor performance for the purpose of identifying and correcting movement errors, attention, anticipation, goal-setting, practice, retention, and transfer of learning as they relate to movement activities and postural control.

Course Learning Outcomes

	Number	Outcomes	Corresponding Program outcomes
	Knowledge		
1	K1	Describe basic goals of motor learning, motor control, growth and motor performance	KP1
2	K2	Describe and justify different types of neurological processes underlying efficient movement, theories and processes by which motor skills	KP2
	Skills		
1	S1	Analyze the different types of growth and motor control and motor learning	SP2
	Competencies		
1	C1	Explain how growth and motor control and motor learning was correcting movement errors, attention, anticipation, goal-setting transfer of learning as they relate to movement activities	

Learning Resources

Course textbook	1.Edwards, W. (2011). Motor learning and control: From theory to practice 2.Berk, Laura E. <i>Development through the lifespan</i> . Sage Publications, 2022. 3.life-span human development ninth edition 2017
Supporting References	
Supporting websites	https://cir.nii.ac.jp/crid/1130282270316717696
Teaching Environment	☒ Classroom ☐ laboratory ☐ Learning platform ☐ Other

Meetings and subjects timetable

Week	Topic	Learning Methods	Learning Material
1 12 Oct	Introduction to Motor Learning and Control	Lecture	Chapter 1 (1)
2 19 Oct	theories of motor learning and control	Lecture	Chapter 4 (1)
3 26 Oct	Stages of motor skills acquisition	Lecture	Chapter 7 (1)
4 2 Nov	strategies of learning retention + + quiz 1	Lecture& Problem solving based learning	Chapter 5 (1)
5 9 Nov	gross motor development	Lecture	Chapter 7 (2)
6 16 Nov	development and aging of body system	Lecture	Chapter 15 (2)
7 23 Nov	prenatal development	Lecture	Chapter 3 (2)
8 29 Nov- 10 Dec	Mid term exam		
9 14 Dec	normal postnatal development	Lecture	Chapter 3,4 (2)
10 21 Dec	development of manipulative skills in spinal cord injury + quiz 2	Lecture	Chapter 4 (1)
11 28 Dec	Sensory perception development in hemiplegic patient	Lecture& Problem solving based learning	Chapter 6 (3)
12 4 Jan	Perception and motor development	Lecture	Chapter 3 (1)
13 11 Jan	Cognitive and socioemotional development + assignment	lecture	Chapter 14 (3)
14 18 Jan	Revision	Lecture& Problem solving based learning	
15 24 Jan-4 Feb	Final Exam		

* includes: Lecture, flipped Class, project- based learning, problem solving based learning, collaborative learning

☐ Online session

Course Contributing to Learner Skill Development

Using Technology
Students will be introduced to navigating and reading professional websites.
Communication skills
Students will be introduced to communicate with patient/client regarding assessment outcomes and therapeutic program
Application of concepts learnt
Students will be introduced to interpretation and integration of finding from multiple sources

Assessment Methods and Grade Distribution

Assessment Methods	Grade Weight	Assessment Time (Week No.)	Link to Course Outcomes
Midterm exam	30%	Refer University calendar	K1,K2,K3,
Term Work* 1) Quiz 1 (10 %) 2) Quiz 2 (10 %) Best of 1 quiz 3) Assignment 1 (20 %)	30%	Quiz 1: 2 Nov 2025 Quiz 2: 21 Dec 2025 Assign 1: 13 Jan 2026	S1, S2& C1
Final Exam	40%	Refer University calendar	K1,K2,K3, S1, S2& C1
Total	100%		

* includes: quiz, in class and out of class assignment, presentations, reports, videotaped assignment, group or individual projects.

Note: Best of 1 quiz marks will be taken for Term work (30%) and Assignment 1 is compulsory.

Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Learning Method*	Assessment Method**
Knowledge			
K1	Describe basic goals of motor learning, motor control, growth and motor performance	Lecture & case scenarios	Exam & Quizzes
K2	Describe and justify different types of neurological processes underlying efficient movement, theories and processes by which motor skills	Lecture & case scenarios	Exam & Quizzes
Skills			
S1	Analyze the different types of growth and motor control and motor learning	Lecture & case scenarios	Exam, Quizzes & assignment
Competencies			
C1	Explain how growth and motor control and motor learning was correcting movement errors, attention, anticipation, goal-setting transfer of learning as they relate to movement activities		

* includes: Lecture, flipped Class, project- based learning, problem solving based learning, collaborative learning

** includes: quiz, in class and out of class assignment, presentations, reports, videotaped assignment, group or individual projects.

Course Policies

Policy	Policy Requirements
Passing Grade	The minimum pass for the course is (50%) and the minimum final mark is (35%).
Missing Exams	- Missing an exam/term work without a valid excuse will result in a zero grade to be assigned to the exam or term work - A Student who misses an exam or scheduled assessment, for a legitimate reason, must submit an official written excuse within a week from the exam or assessment due date. - A student who has an excuse for missing a final exam should submit the excuse to the dean within three days of the missed exam date.
Attendance	The student is not allowed to be absent more than (20%) of the total hours prescribed for the course, which equates to Six lecture days. If the student misses more than (20%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that is considered. The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it.
Academic Honesty	Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights

Program Learning Outcomes to be assessed in this Course

Number	Learning Outcome	Course Title	Assessment Method	Target Performance level
KP1	Acquiring knowledge concerning motor skills	Motor control and learning	Exam & Quizzes	75% of students will get 60 % or more of the total score
KP2	Integrate knowledge and skills To the casual observer, human movement may seem straightforward, and given the seeming ease with which many everyday movement skills are accomplished	Motor control and learning	Exam & Quizzes	75% of students will get 60 % or more of the total score
SP2	Demonstrate effective clinical, interpersonal, and communication skills in examination, treatment plan development, and management of various conditions across the life span in the field of physical therapy.	Motor control and learning	Exam, Quizzes & Assignments	75% of students will get 60 % or more of the total score
CP1	Understanding how people learn motor skills, and how they can learn them most effectively, is a particularly critical and useful area of human knowledge	Motor control and learning	,Exam & Quizzes	75% of students will get 60 % or more of the total score

Description of Program Learning Outcome Assessment Method

Number	Detailed Description of Assessment
KP1	This intended program learning outcome (IPLO) will be assessed by theory exam (MCQ and Essay questions), and Quiz
SP1	This IPLO will be assessed by using out of class assignment. The following rubrics will be used to evaluate the student's skills.
CP1	This IPLO will be assessed by using theory exam, Quiz

Assignment Question 1

1. Scientific articles related to specific topics in motor control and learning will be distributed, and you will be required as groups to analyze, explain, and clarify the scientific papers in the form of a presentation (ppt file) that will be presented at the end of the semester.

Explanation will be required from all group members, and the mark will be divided into 10 marks for explanation and presentation 10 marks for each student, as each student will be asked separately

Assignment Rubrics

	Criteria	Weak (0-2)	Average (3-5)	Satisfactory (6-8)	Competent (9-10)	Score
1	Identify the main issue/ problem	Unable to identify issue/problem in complex situations. Uncertain and unable to assess adequately.	Able to identify an issue/problem in a complex situation but less able to assess adequately.	Able to identify a problem with clarity but moderately able to assess and justify the situation.	Able to identify issue/ problem in a complex situation and able to assess and justify the situation.	___ x 2
2	Analysis of the issue/problem	Unable to analyze issue/problem in complex situations and uncertain and unable to assess adequately.	Able to analyze issue/ problem in a complex situation but less able to assess adequately.	Able to analyze issue/problem with clarity but moderately able to assess and justify the situation.	Able to analyze issue/problem in a complex situation and able to assess and justify the situation.	___ x 2
3	Information management	Poorly updated the information and lack of correlation	Minimum updated information and needs improvement	Adequate updated information lack of correlation	High correlation of information with current trends and advances	___ x 2
4	Relevance and List of references	No relevance and fails to use the references in a correct way	Sufficient relevance, partially fulfill the required number of references	Good relevance, fulfill and appropriate use of references	Excellent relevance and exceed the required number of references	___ x 1

Guidelines for Assignment

1. Use Times New Roman. The font size for headings is 14 and the font size for text is 12. Use 1.5 lines of spacing between sentences in the text.
2. Limit your assignment to a word count of less than 500 words (2 pages).
3. Write your assignment carefully, with more focus on the criteria of the rubrics provided in the course syllabus.
4. Use this plagiarism checker website, <https://www.check-plagiarism.com/>, or Turnitin to check for plagiarism in your assignment. It's free. Take a screen shot of your plagiarism report and submit it along with your assignment. Plagiarism should be less than 20%.
5. Assignments with more than 20% plagiarism will not be accepted and copy from your peer group/uploading assignment in unsupported format will also result in zero grade.
6. On or before January 13, 2026 for assignment 1, submit your assignment via MOODLE.
7. Penalty for late submission: 15% of your marks per day.

Note: Assignment should be submitted through Moodle only. Other forms of submission will not be accepted for grading. It is your responsibility to sort out any problem arises during assignment submission through Moodle. Suggestion: Please avoid last minute submission.