CTRL H2102: Motor Control

Module Title:	Motor Control
Language of Instruction:	English

Credits:	5

NFQ Level:	6

Module Delivered In	4 programme(s)

Teaching & Learning Strategies:	This module will be delivered in three theory classes on one hour duration per week for 12 weeks and one practical class of one hour duration per week for 12 weeks. Lectures will be delivered using powerpoint presentations, group discussions, and any course-related issue or questions that may arise will be discussed at lectures. Lecture notes and announcements will be available on Blackboard, a virtual learning environment. Practical classes will be delivered in the Physiology Laboratory, students will be provided with a Workbook for completion during class, and submission at the end of the semester. Lab notes will also be available on Blackboard.

Module Aim:	To provide the student with a basic understanding of movement, how movement is controlled, and current state of motor control theory. To introduce the student to the processes involved in motor learning.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Explain the role of the nervous and sensory systems in motor performance, analyze how the environment influences motor performance, and apply practice theories involved in the area of motor skill classification.
LO2	Explore the hierarchical organization of the motor control system and its involvement in reflex, rhythmic and voluntary movement control, and apply practice theories involved in the areas of motor motor abilities, proprioception and balance.
LO3	Describe the stages of learning, the changes that occur during motor skill acquisition, and apply practice theories involved in motor learning.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
Successful completion of year 1 or equivalent

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Module Content & Assessment

Indicative Content
Theory Motor Skill Classification, Performance measures, Organization of movement, Motor control hierarchy, Reflexes, Rhythmic and Voluntary movement. Feedback and Feed Forward control. Proprioception and Vision (Somatosensation). Motor Control Theory - Motor Program v Dynamic Pattern Theory. Motor Learning - Stages of learning, skill acquisition and maturation. Practice Schedules.
Practical Motor Skill Classification, Reaction Time - Simple and Choice Situations, Somatosensation/Proprioception, Static and Dynamic Balance, Motor Learning - Constant v Variable Practice Schedules.

Assessment Breakdown	%
Continuous Assessment	75.00%
Practical	25.00%

Special Regulation
Students must achieve a minimum grade of 35% in both CA and Practical requirements

Continuous Assessment

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Other	Continuous assessment (up to a maximum of 3 exams or assignments will take place during the semester) involving any of the following: MCQ, short answer, true or false type exams, oral exam, and/or project/presentation type assessments	1,2,3	75.00	Ongoing

No Project

Practical

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Practical/Skills Evaluation	Workbook will be completed during and after practical classes to demonstrate the learning achieved and the students ability to associate practical application of theory material. Workbook will be submitted at the end of the semester.	1,3	25.00	End-of-Semester

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	12 Weeks per Stage	3.00
Practicals	12 Weeks per Stage	1.00
Independent Learning	15 Weeks per Stage	5.13
	Total Hours	125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SASPS_B	Bachelor of Science (Honours) in Sport and Exercise Science	3	Mandatory
CW_SASRA_B	Bachelor of Science (Honours) in Sports Rehabilitation and Athletic Therapy	3	Mandatory
CW_SASAC_B	Bachelor of Science (Honours) in Strength and Conditioning	3	Mandatory
CW_SAPHS_C	Higher Certificate in Science in Physiology and Health Science	3	Mandatory