



<b>Course Code</b> SPSC-230	<b>Course Title</b> Motor Control & Learning	<b>ECTS Credits</b> 6
<b>Department</b> Sports Science	<b>Semester</b> Spring or Fall	<b>Prerequisites</b> SPSC-105, SPSC-106
<b>Type of Course</b> Required	<b>Field</b> Physical Educ. & Sports Psychology	<b>Language of Instruction</b> Greek
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Year of Study</b> 2 <sup>nd</sup>	<b>Lecturer</b> Prof Kioumourtzoglou E.
<b>Mode of Delivery</b> face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None
<b>Recommended Optional Programme Components:</b> N/A		

**Objectives of the Course:**

The primary aim of the course is to examine the basic principles governing learning and performance of motor skills, and discuss the application of teaching motor skills. Topics include the development of motor learning and performance, performance assessment and movement skills, and the assessment, remediation, and adaptation of activities for individuals throughout the lifespan.

**Learning Outcomes:**

1. Explain the importance of motor development as a pursuit of study within the sport sciences.
2. Describe the relationship between motor development and the following: Cognitive Development, Social Development, Perceptual Motor Development.
3. List and discuss the early factors that affect motor development.
4. Explain the influences of growth and maturation in motor development.
5. Describe how the development of visual senses impact motor performance and development.
6. List and discuss the common infant reflexes and stereotypes and their relationship to motor development.
7. Analyze the effects of voluntary movements in infants during the growth process.
8. Identify the fundamental movement acquired during childhood.
9. Classify fundamental movements into appropriate stages of development.
10. Observe children and identify their current motor developmental stages.
11. Analyze the implications of youth sport programs on growth and development.
12. Describe the implications for motor development across the lifespan.
13. Identify the components of assessment in motor development.
14. Describe the neurological basis of movement.
15. Identify ecological and environmental influences in children's motor

development.

16. Demonstrate an understanding of motor learning concepts including:
  - a. Theories of motor control and learning
  - b. Scientific measurements in motor control and learning
  - c. Neuromotor analysis
  - d. Sensory contributions to movement (feedback)
  - e. Memory and learning
  - f. Movement skills learning theory
  - g. Practice organization (whole-part)
  - h. Feedback and knowledge of results

**Course Contents:**

1. The information processing and energetic capacities of the learner that underpin motor performance.
  2. Movement control during practice condition.
  3. Characteristics of the perceptual-motor system such as memory, attention, reaction time, speed-accuracy trade-off, force control, economy of energy, coordination, automaticity, lateralisation, arousal and stress, talent and expertise.
  4. Examination of features of the learning environment that can be manipulated to promote motor learning such as goals, motivation, instruction, practice conditions and feedback.
- Applications to teaching motor skills and the principles of motor control

**Learning Activities and Teaching Methods:**

Lectures and practical application from the students

**Assessment Methods:**

Midterm , Final examination, Mini essay , Attendance and participation

**Required Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Richard A. Schmidt, Craig A. Wrisberg	Motor Learning and Performance w/Web Study Guide-4th Edition - A Situation-Based Learning Approach	Human Kinetics	2008	073606964X

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Mark L. Latash, Mindy Levin	Progress in Motor Control, (Vol 3) - Effects of Age, Disorder, and Rehabilitation	Human Kinetics	2004	0736044000
Latash M L (ed),	Progress in motor control. Bernstein's	Human Kinetics	1998	0880116749

	traditions in movement studies			
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