KEAN UNIVERSITY
UNION, NEW JERSEY

INTRODUCTION TO MOTOR LEARNING

Course Number: PED 1500
Semester Hours: Three
Prerequisites: None
Limitations on Enrollment: 25

Course Designation(s) ☒ Required for all intended PE majors.
☐ Experimental ☐ Elective
☐ Distance Learning Course Offerings ☐ Continuing Education

Catalogue Description:

Examine the basic developmental principles and theories of human growth development and motor behavior across the lifespan. Theories and laboratory exercises are surveyed to identify factors affecting learning and performance of motor skills.

N.B. In order to ensure full class participation, any student with a disability condition requiring special accommodations (e.g., tape recorder, special adaptive equipment, special note taking or test taking procedures or sign/oral interpreter) is strongly urged to contact the professor at the beginning of the course.
I. INTRODUCTION

Conceptual Cornerstones is the name of Kean University’s College of Education’s foundational statement of goals for its preparation of future educators. The statement represents a collaborative synthesis of the thinking of the College’s faculty and was formally adopted in the summer of 2014.

The learning by teacher education candidates in the College of Education is based upon a foundation of four philosophical constructs, the Conceptual Cornerstones:

A. 21st Century Skills
B. Equity and Diversity
C. The Whole Learner
D. Global Competencies

Generally, the Conceptual Cornerstones are enacted when candidates demonstrate knowledge, skill, and dispositions in the following five domains:

I. Academic Content Knowledge and Planning for Learning
II. Clinical Partnerships and Environments for Learning
III. Instructional Practice for Learning
IV. Professional Development and Values for Learning
V. Networks for Learning

II. STUDENT LEARNING OUTCOMES

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

A. Describe the developmental motor behavior and the associated biological changes in human movement across the life span (infancy, childhood, adolescence and adult). (Domain I, III, IV, V)

B. Examine the neuromuscular coordination of movement, motor program, and the role of proprioception and vision in the control movement. (Domain I)

C. Differentiate the role of memory, motor ability, practice, feedback, transfer and motivation in skill acquisition. (Domain I, III)

D. Construct laboratory exercises (conducting experiments collecting data, data analysis and interpretation). (Domain I-V)
III. COURSE CONTENT

A. Lifelong human development
   1. Introduction
   2. Biological factors
   3. Environmental factors
   4. Physical factors
   5. Physiological factor

B. Examining various motor learning concepts
   1. Task classification
   2. Motor abilities
   3. Measurement of motor performance
   4. Learning and performance motor skills
   5. Motor learning and movement control theories
      a. Anatomy of the neuromuscular system
      b. Neural transmission
      c. Open loop and closed loop system
      d. The role of proprioceptors and vision in controlling movement

C. Differentiating various roles in skill acquisition
   1. Memory
   2. Motor ability
   3. Practice
   4. Feedback
   5. Transfer
   6. Motivation in skill acquisition

D. Laboratory exercises
   1. Research process
   2. Data collection and analysis
   3. Laboratory report

IV. METHODS OF INSTRUCTION

A. Lectures

B. Lectures accompanied by Power points and online research

C. Whole class discussions

D. Small-group discussion

E. Individual activities
V. METHODS OF ASSESSMENT

A. Written quizzes (SLO’s A-D)
B. Assignments and experiments (SLO’s A-D)
C. Attendance and participation (SLO’s A-D)

VI. SUGGESTED TEXTS:


VII. BIBLIOGRAPHY

A. Print


**B. Seminal**

Ackerman, P. L. (2014). Nonsense, common sense, and science of expert performance: Talent and individual differences. *Intelligence, 45*, 6-17


C. **Non-Print:**

National Prevention Council, U.S. Department of Health
http://www.surgeongeneral.gov/priorities/prevention/

World Health Organization
http://www.who.int/en/

Occupational Safety and Health Administration (OSHA)

Agency for Healthcare Policy and Research
http://www.ahrq.gov/

Center for Disease Control and Prevention
http://www.cdc.gov/

National Institutes of Health
http://www.nih.gov/

National Vital Statistics Report
http://www.cdc.gov/nchs/products/nvsr.htm

American Heart Association
http://www.heart.org/HEARTORG/

American Cancer Society
http://www.cancer.org/

National Center on Addiction and Substance Abuse at Columbia University
http://www.casacolumbia.org/

National Commission for Health Education Credentialing
http://www.nchec.org/ches

Educated Citizen and Public Health
https://www.aacu.org/public_health