National Association for Sport and Physical Education
an association of the American Alliance for Health, Physical Education, Recreation and Dance
NASPE Sets the Standard
GUIDANCE DOCUMENT

Minimum Competencies in Undergraduate Motor Development

The following minimum competency guidelines in Motor Development at the undergraduate level may be gained in one or more motor development course(s) or through other courses provided in an undergraduate curriculum.

I. Formulation of a Developmental Perspective

The student is able to:

A. Demonstrate an understanding of the basis of motor development by:

1. Defining and applying terminology used in motor development literature.
2. Demonstrating an understanding of the underlying mechanisms governing motor development.
3. Identifying qualitative and quantitative changes that occur in motor behavior throughout the lifespan.

B. Demonstrate an understanding of research in the area of motor behavior by:

1. Identifying and discussing theoretical perspectives of motor development.
2. Identifying research methodology used for understanding the developmental process.

C. Apply motor development concepts to instructional settings by:

1. Applying underlying methods of encouraging physical activity and the achievement of skillful movement and fitness among individuals.
2. Identifying, selecting, and implementing learning opportunities based on relevant levels of readiness and individual progression.

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3. Assessing motor performance and designing safe instructional environments (considering developmental needs in the physical, social, cognitive, and affective domains).

II. Knowledge of Changes in Motor Behavior Across the Lifespan

The student will be able to:

A. Demonstrate an understanding of movement patterns and the factors that influence changes in those movement patterns by:

1. Comparing and contrasting between inter-task and intra-task developmental sequences in selected skills.

2. Understanding the influence of task, environment, and individual (including structural and functional constraints) on the acquisition of fundamental motor skills throughout the lifespan.

3. Demonstrating knowledge of motor pattern changes for selected motor skills.

4. Describing the primitive reflexes that are inhibited and the postural reflexes that appear prior to birth, or in the first year of life.

5. Explaining the theoretical explanations for the appearance and inhibition of the primitive reflexes.

6. Explaining the relationship of the inhibition of specific reflexes and the appearance of specific reactions to the development of particular voluntary motor skills (e.g.,stepping reflex).

7. Describing the “motor milestones” that lead to upright locomotion and visually guided reaching.

8. Describing lifespan sex differences and similarities in motor development.

9. Discussing pertinent changes in motor-skill acquisition in older adulthood and the factors that underlie these changes

B. Demonstrate an ability to observe changes in movement patterns across the lifespan by:

1. Observing changes in fundamental movement skill patterns using various approaches that are described in the literature (e.g., whole body, component).

2. Discussing lifespan changes in selected movement dimensions such as balance, timing, or force productions/control.

III. Factors Affecting Movement Change (based on Newell's 1986 constraints model)

The student is able to:

A. Identify physical growth, physiological, and aging characteristics associated with the motor development of performers by:

1. Defining key terms associated with growth, physiology,and aging (e.g., acceleration curve, accretion, bodycomposition, "catch-up growth," deceleration, distance curve, endurance, flexibility, hyperplasia, hypertrophy, plasticity, secondary growth spurt, stature, strength,velocity curve); and defining the measures needed for assessing growth, physiological development, and aging (e.g., blood pressure, heart rate, height or stature, girth, proportional changes in segmental lengths and girth, somatotype, VO2 max, weight).

2. Discussing characteristics of growth and aging across embryonic, fetal, and postnatal periods through older adulthood.

3. Describing gender and individual differences in physical growth and physiological development including the adolescent (secondary) growth spurt.

4. Discussing genetic and environmental factors, as well as secular trends in growth, physiological development, and aging.

5. Identifying major changes in body composition and physiological functioning by gender across the lifespan.

6. Understanding the effect of physical activity, exercise, and nutrition on growth, physiological body systems, and aging.

7. Identifying the key relationships between lifespan motor skill development and physical growth, physiological changes, and aging.

B. Identify cognitive and perceptual characteristics associated with the motor development of performers by:

1. Describing major cognitive changes and mechanisms that explain variation in cognitive processing across the lifespan.

2. Describing developmental changes in sensory and perceptual functioning across the lifespan.

C. Use developmental task analysis to change the developmental level of movement by:

1. Identifying characteristics associated with task demands that affect motor development, such as the perceptual demands of motor tasks, task factors, and levels of task complexity for these factors.

2. Creating progressions of motor-task demands that vary from simple to more complex.

3. Identifying characteristics of the physical environment (e.g., gravity, temperature, friction, fluid density) and the socio-cultural environment (e.g., SES level, childrearing practices, significant others, cross-cultural practices) that can affect motor development.

4. Illustrating how to manipulate the complexity of the physical and socio-cultural environments to enhance motor development.

5. Identifying the effects of environmental deprivation and enrichment (e.g., social, psychological, sensory) on lifespan motor development using classic and contemporary studies on deprivation and enrichment.

6. Discussing critical or sensitive periods, ontogenetic versus phylogenetic skills, and co-twin studies and their relationship to motor development.

IV. Demonstrate Developmentally Appropriate Practices

The student is able to:

A. Observe and assess movement from a developmental perspective by:

1. Demonstrating adequate planning, in regards to motor skill acquisition, with appropriate observation strategies.

2. Establishing a position appropriate to the motor skill being observed.

3. Using valid and reliable developmental sequence checklists and motor development tests to assess developmental status
    (i) through media-recorded movement examples.
    (ii) using live movement observations.

B. Promote success-oriented individual change in movement by:

1. Manipulating task and environmental demands for individual performers to alter the developmental level of movement using ordered changes in task and environmental complexity (see III.C.2 and III.C.4 above).

2. Demonstrating awareness of within-age and across-age individual differences to individualize instruction and movement experiences.

3. Using developmentally appropriate instructional techniques (e.g., indirect teaching, movement exploration, guided discovery, task setting) that facilitate movement change.

4. Applying knowledge of motor development to the design of movement equipment, play spaces, and living environments for individuals at all stages across the lifespan.

5. Planning and delivering developmentally appropriate movement experiences that fit the developmental needs of individuals across the lifespan (e.g., preschool, childhood, adolescence, early, middle and late adulthood).

C. Assess and evaluate movement development by:

1. Evaluating an individual's growth status using appropriate displacement and velocity growth curves.

2. Using valid developmental sequence checklists for formative and summative criterion evaluation.

3. Critiquing current motor development screening tests/scales, competently administering at least one motor development test, and interpreting its results normatively.

4. Identifying appropriate resources for the assessment and referral of movement pathologies.

References:

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National Association for Sport and Physical Education

Suggested Citation:

National Association for Sport and Physical Education. (2004). *Minimum competencies in undergraduate motor development* [Guidance document]. Reston, VA: Author.