Study Guide for Test 1

1. Introduction to Motor Development (Chapter 1)

Explain the concepts of age appropriate and developmentally appropriate.
Explain the concepts of development, maturation, and growth.
Explain the elements of developmental change.
Define the developmental directional terms of cephalocaudal and proximodistal.
Define the developmental terms of differentiation and integration.
Describe the process-product controversy and how it relates to human motor development.
Define the different age periods or stages across one's lifespan.

2. Effects of Early Stimulation & Deprivation (Chapter 5)

Describe the effects of early stimulation.
Describe the programs that enhance early motor development.
Describe McGraw's famous twin study involving early stimulation and deprivation.
Describe the effects of early deprivation.
Describe the concepts of critical periods, readiness, and catch-up as it relates to development.

3. Physiological Changes: Health Related Physical Fitness (Chapter 7)

Describe the components of the cardiovascular fitness changes across the human lifespan and how these changes are influenced by increases in physical activity.
Describe the developmental changes in muscular strength/muscular endurance across the human lifespan and how these changes are influenced by physical activity.
Describe the developmental changes in flexibility across the human lifespan and how these changes are influenced by physical activity.
Describe the development changes in adipose tissue (fat) across the human lifespan, effects of being overweight or obese on motor development and motor performance.
Identify gender difference in each cardiovascular components, strength, muscular endurance, flexibility, and changes in adipose tissue.
Discuss the controversy and concerns regarding health-related physical fitness across the human life span that includes: cardiovascular training in pre-puberty children, trainability of health related fitness components in the aged population, children involves in strength training, and treatment of overweight/obese children and adults, and how much physical activity is enough to obtain optimal health.

4. Movement and the changing Senses (Chapter 8)

Describe the basic mechanics of human vision involving the retina, rods & cones, macula, ciliary muscle, and accommodation.

Describe the physical development of the eye.

Describe the age-related changes in visual acuity and the relationship to skilled motor performance.

Describe the age-related changes in visual acuity and the effects exercise.

Effects of aging on visual acuity including the four major AREDs.

Describe the age-related changes in binocular, depth perception and field of vision and their relationship to skilled motor performance.

How does age effect one’s depth and field of vision?

The effects of different types of eye dominance on performing motor skills.

Describe the process of coincidence anticipation and the relationship to skilled motor performance involving the variables of age, gender, training, and experience.

Describe the motor performance and development involving head/trunk control, independent sitting, creeping, independent walking, prehension, and play behavior in visually impaired children.

Describe the basic mechanics of the proprioceptive system including the mechanoreceptors, muscle spindles, golgi tendons, joint receptors, and vestibular apparatus and the role of the proprioceptive system in motor skill performance.

Describe the three main parts of the auditory system, the development of the auditory system and the consequences of having hearing impairment.

Describe the three possible responses of tactile stimulation and importance of tactual stimulation on development.

5. Fine Motor Development (Chapter 11)

List and describe the different categories of manipulation

Describe Halverson’s process of the development of prehension

Describe Newell, et al., views of the development of prehension.
Explain the types of haptic perception and how it relates to human development.

Describe the stages in holding a writing implement.

Are there cross-cultural differences in the development of dynamic tripod handwriting position?

From the product perspective, describe the development of drawing and handwriting.

Explain the importance of the finger taping ability and the types of finger taping.

Describe why people slow with age and can fine motor skill be improved with training in the aged population.

6. *Fundamental Locomotor Skills of Childhood (Chapter 12)*

What are the developmental milestones associated with immature and mature upright independent walking?

Describe the developmental milestones associated with both immature and mature running.

Describe the developmental milestones associated with the long & vertical jump.

Describe the developmental milestones associated with hopping.

Describe the developmental milestones associated with the gallop, slide, and skip.

7. *Fundamental Object-Control Skill of Childhood (Chapter 13)*

Describe the developmental milestones associated with both immature and mature overarm throwing.

What factors influence the development of overarm throwing?

Describe the developmental milestones associated with both immature and mature catching.

What factors influence the development of catching?

Describe the developmental milestones associated with both immature and mature striking?

Describe the developmental aspects of kicking, punting, and bouncing a ball.

5. *Movement in Adulthood (Chapter 15)*

Describe balance and postural sway in adulthood and how it is related to falls.

Falls in the aged are due to what causes.
How do the older adults behave to prevent falling?

Explain the key issues and factors associated with driving and older adulthood.

What are the daily activities associated with independent living?

Explain the factors associated with peak achievement in motor and physical skills.

Describe movement speed in adulthood.

How can one delay the effects of age on motor skill performance?

Explain the key issues associated with teaching or regaining movement skills to older adults.