

Human Development

Exam Information	Description
Exam number 301 Items 60 National Career Cluster Education & Training Certification available Yes	The Human Development industry certification exam assesses learner's knowledge of the developmental stages of individuals across the lifespan. Learners are tested on biological, cognitive, and social/emotional developmental changes of the individual in the context of the family and society. The exam emphasizes and demonstrates the vital connections between theory, research, and application. Candidate leadership and competitive events (FCCLA) may be integrated into the exam.

Exam Blueprint and Performance Skills

Standard	Percentage of exam score
1. Stages Of Development	9%
2. Prenatal Development	13%
3. Physical & Cognitive growth in infancy	12%
4. Child Development	19%
5. Biological & Cognitive Development In Middle Childhood	10%
6. Biological & Cognitive Development In Adolescence	12%
7. Development Of Emerging Adults	6%
8. Psychosocial development in middle childhood	9%
9. Psychosocial development in late adulthood	9%
10. Death	3%

*Includes performance skill evaluation

Standard 1 - Stages Of Development

Candidates will investigate stages of development through the lifespan, understand the major developmental theories, and the scientific method.

Objective 1 Define human development focus on the three domains.

1. Biological - Physical
2. Cognitive - Mental
3. Psychosocial - social/emotional
4. List and describe the basic steps of the scientific method (Pose a question, Develop a hypothesis, Test the hypothesis, Draw conclusions, Report findings, Replicate) a. Describe surveys, noting at least one advantage and one disadvantage. b. Describe three basic research designs used by developmental psychologists; cross- sectional, longitudinal, and cross-sequential. c. Discuss the code of ethics and protection of research.
5. Define the nature/nurture controversy (The impact of genetics and. environment on development).

Objective 2 Investigate the lifespan perspective, which identifies the five facets of human development.

1. Explain that development is multidirectional (multiple changes in every direction including sensitive and critical periods).
2. Discuss the multi contextual aspects of human life (i.e. historical events, cohorts, SES, and ecological-systems approach).
3. Discuss the multicultural nature of human development (i.e. culture, ethnicity, and race).
4. Discuss the multidisciplinary approach and how each person develops simultaneously in the three domains. (biological, cognitive, psychosocial).
5. Explain the importance of plasticity

Objective 3 Describe the major developmental theories: Psychosocial theory, behaviorism, cognitive theory, humanism, evolutionary theories.

1. Describe the crises of Erikson's theory
2. Discuss the major focus of behaviorists. (Watson, Pavlov, Skinner, and Bandura)
3. Explain the basic principles of classical and operant conditioning with social learning theory
4. Identify the primary focus of cognitive theories. (Piaget & Vygotsky)
5. Describe Maslow's hierarchy of needs

Standard 2 - Prenatal Development

Candidates will explore prenatal development from conception to birth including genetics and risk factors.

Objective 1 Describe how chromosomes and genes are transmitted to the developing zygote at conception. Identify the building blocks of heredity. (DNA, genes, chromosomes, and gametes)

1. Differentiate genotype from phenotype and discuss genetic diversity within the human genome (include allele).
2. Explain how sex is determined and discuss the polygenic and multifactorial nature of human traits.
3. Describe the significant developments of the germinal period. (include duplication/division, differentiation, and implantation)
4. Distinguish between monozygotic and dizygotic twins.
5. Describe recessive genes and X-linked genes in terms of genotype and phenotype.

Objective 2 Discuss the prenatal development process through birth (germinal/zygotic, embryonic, and fetal periods).

1. Describe the embryonic period (embryo)
2. Describe the fetal period (include fetus, ultrasound, age of viability)
3. Describe the birth process; including the possible need for medical intervention (i.e. cesarean section)
4. Discuss the Apgar test
5. Discuss the signs and coping methods for postpartum depression

Objective 3 Discuss abnormal genes and chromosomes, possible harm to the fetus (teratogens), prenatal testing, and low birthweight.

1. Discuss the importance of prenatal care, social support, and a healthy parental alliance.
2. Describe the most common chromosomal abnormalities. (i.e. Down syndrome and X- linked chromosome abnormalities)
3. Identify behavioral and physical teratogens, note their effects on the developing embryo and fetus, and discuss factors that determine whether teratogens will be harmful.
4. Discuss how to minimize risks involved with pregnancy. (i.e. critical and sensitive period, threshold effect, fetal alcohol spectrum disorders (FASD), and age of mother)
5. Identify the difference between low birthweight, very low birthweight, and extremely low birthweight. (include preterm and small for gestational age)

Optional: Standard performance evaluations on the final page of this document

Standard 3 - Physical & cognitive growth in infancy

The candidate will outline healthy patterns of physical, cognitive, and psychosocial growth during infancy (first two years).

Objective 1 Understand the interaction of biological and environmental forces on physical development during the first two years.

1. Discuss the infant's rapid change in height and weight compared to an adult
2. Identify the reflexes that a newborn exhibits (Moro, Babinski, Grasping, Rooting)
3. Discuss the dangers to the brain caused by shaken baby syndrome
4. Describe an infant's sensory and perceptual abilities in hearing, vision, taste, smell, and touch
5. Describe the basic pattern and timing of gross and fine motor-skill development
6. Discuss SIDS and co-sleeping
7. Discuss the importance of childhood immunizations
8. Discuss the nutrition for the first two years (include breast milk, colostrum, malnutrition)

Objective 2 Explore cognitive development. Distinguish between sensation, perception, and cognition.

1. Discuss the three main goals of the dynamic sensory motor system (social interaction, comfort, and learning)
2. Identify and describe Piaget's theory of sensorimotor intelligence (i.e. object permanence and little scientist)
3. Identify the universal sequence and normative benchmark of language development (i.e. child-directed speech, babbling, holophrase, naming explosion, and grammar)

Objective 3 Explore psychosocial development. (emotions and brain development).

1. Describe the basic emotions expressed by infants during the first year. (i.e. social smile, stress/c, separation anxiety, and stranger anxiety)
2. Describe the social/emotional development. (i.e. self-awareness, pride, shame, embarrassment, disgust, and guilt)
3. Discuss the role of temperament and personality in the child's psychosocial development. (i.e. influence of genes and child-rearing methods)

Objective 4 Explore how social bonds lead to healthy growth and development.

1. Discuss the importance of goodness of fit, social referencing and synchrony in caregiver-infant interaction during the first year
2. Explore secure and insecure attachment (i.e. insecure-avoidant, secure, insecure-resistant/ambivalent, disorganized)
3. Describe the behaviorism perspective on emotion and personality that are influenced by parents (i.e. social learning, distal and proximal parenting)
4. Discuss the impact of non-Parental care on young children and identify factors that define high-quality day care (i.e. family or center day care)

Optional: Standard performance evaluations on the final page of this document

Standard 4 - Child Development

The candidate will outline healthy patterns of physical, cognitive, and psychosocial growth during early childhood (Ages 2 – 6).

Objective 1 Describe growth rates and changes in physical development.

1. Describe normal physical growth
2. Describe changes in eating habits (i.e. overweight, deficiencies, allergies, just right principle, and oral health)
3. Explore the development between gross and fine motor skills
4. Discuss the risk of accidental injury and environmental hazards (i.e. primary, secondary, and tertiary prevention)

Objective 2 Examine brain growth and its role in physical and cognitive development.

1. Describe the development of the prefrontal cortex during early childhood and its role in impulse control and appropriate focus
2. Describe the development of the limbic system, along with its role in the expression and regulation of emotions
3. Describe the major characteristics of Piaget's stage of preoperational thought (i.e. symbolic thought, animism, centration, egocentrism, focus on appearance, static reasoning, irreversibility, and conservation)
4. Explain Vygotsky's views on cognitive development (guided participation, scaffolding and zone of proximal development)
5. Explain vocabulary explosion and comprehension of speech (i.e. fast-mapping and over regularization).
6. Discuss bilingualism at an early age

Objective 3 Describe social understanding, beginning with emotional development and emergence of sense of self.

1. Explain Erik Erikson's Second (shame vs doubt) and third stage (initiative vs guilt)
2. Identify different types of motivation and emotional regulation (i.e. extrinsic vs. intrinsic, and effects of rewards/positive reinforcement)

Objective 4 Discuss the importance of play in psychosocial development. Discuss types of play. (i.e. solitary, onlooker, parallel, associative, and cooperative).

1. Identify benefits of active play (i.e. rough and tumble and sociodramatic)
2. Discuss gender differences that emerge during early childhood.

Objective 5 Discuss the effects of parenting patterns.

1. Compare and contrast parenting styles (i.e. authoritarian, permissive, authoritative, and neglectful/uninvolved)
2. Describe pros and cons of methods of discipline (i.e. corporal punishment, psychological control, time-out/social exclusion, and explanation)
3. Discuss how screen time can affect development (i.e. violence in children and interference with family life)

Objective 6 Discuss how children develop moral values, behaviors, and social bonds.

1. Explain empathy or antipathy, and describe the behaviors produced by each type of emotion (i.e. antisocial and prosocial behavior)
2. Differentiate types of aggression (i.e. instrumental, reactive, relational, and bullying aggression)

Objective 7 Identify the various categories of child abuse warning signs, consequences, and prevention.

1. Define different types of abuse (i.e. physical, emotional, sexual, and neglect) and short-term/long-term consequences
2. Discuss the three levels of prevention when addressing child abuse (primary, secondary, and tertiary)
3. Discuss foster and kinship care as intervention options

Optional: Standard performance evaluations on the final page of this document

Standard 5 - Biological & cognitive development in middle childhood

The candidate will outline healthy patterns of physical, cognitive and psychosocial growth during middle childhood (Ages 7 – 11).

Objective 1 Describe normal physical growth and development during middle childhood.

1. Discuss benefits and hazards of play and physical exercise
2. Discuss short-term and long-term problems of asthma and obesity (i.e. BMI, overweight, heart disease)

Objective 2 Examine brain and cognitive development.

1. Identify and discuss Piaget's concrete operational thought (i.e. classification and seriation)
2. Discuss Vygotsky's views regarding the influence of sociocultural context on learning
3. Discuss how information-processing theory explains cognitive advances (i.e. selective attention, sensory memory, working memory/short-term memory, long-term memory, and metacognition)
4. Explain pragmatics and informal/formal codes in language development

5. Explain how achievement and aptitude tests are used in evaluating individual differences in cognitive growth (i.e. IQ, multiple intelligences)

Objective 3 Explore developmental psychopathology perspective and the value in treating children with special needs.

1. Describe symptoms and treatment of attention-deficit disorder
2. Discuss characteristics of learning disabilities (i.e. dyslexia, autistic spectrum disorders)

Objective 4 Explore growing social competence of children, growth of social cognition, and self- understanding.

1. Explore Erikson's psychosocial developmental stage (industry vs. inferiority)
2. Describe development of the self-concept and its implications for children's self-esteem (social comparison)
3. Discuss resilience and identify the variables that influence stressors and coping methods

Objective 5 Explore ways peer groups influence psychosocial development. Discuss positive and negative social interactions of peer groups, self-esteem, lack of physical stamina, and increase in asthma).

1. Discuss bullying (include physical, verbal, relational, cyber bullying, and prevention)

Objective 6 Explore how middle childhood is a time of expanding moral reasoning.

1. Outline Kohlberg's theory of moral development (preconventional, conventional, and postconventional)
2. Discuss the shift from parental influence on peers (protect your friends, loyalty, conform to peer standards)

Optional: Standard performance evaluations on the final page of this document

Standard 6 - Biological & cognitive development in adolescence

The candidate will outline healthy patterns of physical, cognitive and psychosocial growth during adolescence (Ages 11 to 18).

Objective 1 Explain biological maturation of the adolescent.

1. Outline biological events of puberty (i.e. primary and secondary sex characteristics) and discuss the emotional impact of hormones
2. Identify several factors that influence the onset of puberty and discuss effects of early and late maturation (menarche and spermarche)
3. Describe growth spurts, focusing on changes in body weight, height, and muscles

4. Discuss the relationship between poor nutrition and body image concerns
5. Describe eating disorders (i.e. anorexia, bulimia).

Objective 2 Describe cognitive advances and limitations.

1. Discuss relationships between the limbic system and the prefrontal cortex, the last part of the brain to mature (cognition and behavior)
2. Discuss egocentric fantasies/fables (personal fable, invincibility fable, and imaginary audience)
3. Describe evidence of formal operational thinking (hypothetical thought, deductive and inductive reasoning)
4. Discuss two modes of thinking (intuitive and analytic thought)

Objective 3 Explore learning in secondary education.

1. Discuss problems that often appear during the transition from elementary to secondary school
2. Discuss relationships between educational technology and teenage cognition (i.e. cyber-danger, abuse, and addiction)

Objective 4 Discuss adolescent's efforts to achieve an identity and the impact of parents and peer groups on psychosocial development.

1. Describe Erikson's fifth developmental stage (identity vs role confusion)
2. Identify James Marcia's four major identity statuses (role confusion, foreclosure, moratorium, identity achievement)

Objective 5 Examine influences of family, friends, and society on adolescent psychosocial development.

1. Describe effects of parent-adolescent conflict and other aspects of parent-teen relationships (i.e. bickering and parental monitoring)
2. Explain constructive functions of peer relationships and close friendships during adolescence (i.e. peer pressure, clique, crowd, and deviancy training)

Objective 6 Examine romantic relationships of adolescents.

1. Discuss development of romantic relationships during adolescence
2. Discuss various influences on teen sexual behavior (peers, parents, and schools)
3. Discuss potential problems associated with early sexual activity (teen pregnancy and STIs)

Objective 7 Describe how sadness, anger, delinquency, and drug use can influence adolescent lives.

1. Discuss contributing factors and causes of depression (i.e. familism, chemical imbalance, rumination)
2. Discuss adolescent suicides and suicide attempts (i.e. suicidal ideation parasuicide, and cluster suicide)
3. Discuss causes of delinquency and drug use and approaches for prevention
4. Discuss the prevalence and significance of substance abuse for development (include the use of alcohol, tobacco, and other drugs)

Optional: Standard performance evaluations on the final page of this document

Standard 7 - Development of emerging adults

The candidate will examine the overall development of emerging adults. (Ages 18-25).

Objective 1 Describe physical changes in emerging adulthood.

1. Describe changes in growth, strength, and overall health that occur
2. Discuss why emerging adults are more likely than people of other ages to take part in risky behaviors (i.e. irresponsible sex, risky sports and occupation and drug use)

Objective 2 Examine personality development. Explain that ethnic and vocational identity from Marcia's identity achievement stage may still be unresolved.

1. Describe personality regarding rising self-esteem and serious psychological disorders (i.e. mood disorders, anxiety disorders, and schizophrenia)
2. Discuss Erikson's sixth developmental stage (intimacy vs. isolation)
3. The need for intimacy in emerging adulthood, focusing on friendship, love, and marriage (hooking up, choice overload, and cohabitation)

Optional: Standard performance evaluations on the final page of this document

Standard 8 - Psychosocial development in middle childhood

Candidates will outline healthy patterns of physical, cognitive, and psychosocial growth during middle adulthood (Ages 25-65).

Objective 1 Describe typical patterns of biological development. Identify common physical signs of aging and discuss their impact. (i.e. senescence: skin, hair, shape and agility, senses)

1. Identify common changes that occur in the sexual-reproductive system (i.e. infertility and in-vitro fertilization, menopause, and andropause)
2. Discuss changes in brain functioning (slowing of reaction time)

Objective 2 Discuss the relationship of environmental and personal factors to health. 1

1. Describe the effects of certain lifestyle factors on health (tobacco and alcohol use, lack of exercise, and overeating)
2. Identify measures for increasing health during middle adulthood (i.e. mortality, morbidity, disability, and vitality)
3. Discuss differences in stress responses (i.e. problem-focused, emotion-focused, and avoidant)
4. Discuss how SES and ethnicity affects health

Objective 3 Discuss cognitive expertise that often comes with experience, pointing out the ways in which expert thinking differs from that of the novice (selective optimization with compensation).

Objective 4 Discuss adult personality. Examine the Big Five personality traits. (openness, conscientiousness, extroversion, agreeableness, neuroticism)

Objective 5 Understand ways in which friendship and family dynamics change during adulthood.

1. Discuss importance of friendship and social convoy in protecting adults against the effects of stress
2. Describe how relationships with siblings, children, and parents change during adulthood (i.e. fictive kin)
3. Describe how and why marital relationships change during adulthood (i.e. intimacy, passion, commitment and time periods of marital happiness, empty nest)
4. Discuss impacts of divorce and remarriage during adulthood

Objective 6 Examine Erikson's seventh stage of development (generativity vs. stagnation).

1. Explain how generativity is met (i.e. care giving, employment, kinkeeper and volunteering)
2. Discuss middle-aged adults as the "sandwich generation," focusing on caring for their elderly parents
3. Describe how balance among work, family, and self often shifts
4. Describe intrinsic and extrinsic rewards associated with working; and how job change/loss influences older workers

Optional: Standard performance evaluations on the final page of this document

Standard 9 - Psychosocial development in late adulthood

The candidate will outline healthy patterns of physical, cognitive, and psychosocial growth during late adulthood (ages 65+).

Objective 1 Examine physical development.

1. Define ageism and elderspeak; and explain contributions of gerontology to changing views about old age
2. Explore physical health including primary and secondary aging

3. Explain the concept of compression of morbidity
4. Describe ongoing changes in the age distribution (demographic shift)
5. Distinguish among three categories (young-old, old-old, and oldest-old)
6. Discuss concepts and theories of aging (i.e. wear and tear, genetic clock, cellular aging)
7. Discuss selective optimization with compensation (i.e. sex, senses and driving)

Objective 2 Describe cognitive changes.

1. Compare Erikson's integrity vs despair and Maslow's self-actualization
2. Discuss purposes of a life review
3. Discuss problems with identifying causes of dementia/Neurocognitive disorders (polypharmacy)

Objective 3 Explain Erikson's eighth developmental stage. (integrity vs. despair)

Objective 4 Explore ways older adults fulfill their need for relationships. Describe long-term partners and how they protect against problems of aging.

1. Describe relationships between older adults and younger generations (i.e. filial responsibility and types of grandparents: remote, companionate, involved, and surrogate)
2. Identify roles of friendship in late adulthood

Objective 5 Address problems facing the frail elderly and their families, including caregiving and living arrangements.

1. Identify and discuss Activities of Daily Living (ADLs): eating, bathing, toileting, dressing, and moving; and Instrumental ADLs (IADLs) (i.e. paying bills, driving a car)
2. Identify advantages and disadvantages of alternative care arrangements
3. Describe risks and predictors of elder abuse

Optional: Standard performance evaluations on the final page of this document

Standard 10 - Death

Explore various views on death and dying.

Objective 1 Describe how death and dying has changed from 100 years ago.

1. Analyze death throughout the lifespan
2. Discuss a near-death experience

Objective 2 Understand the meaning of death and loss.

1. Identify the purpose of hospice and palliative care (i.e. relieving patients from pain & suffering, living will, health care proxy)

2. Describe characteristics of a “good death” that are accepted by most people (i.e. at the end of a long life, peaceful, quick, in familiar surroundings, with family and friends present, without pain or discomfort)
3. Identify stages of grief according to Kubler-Ross (denial, anger, bargaining, depression, and acceptance)
4. Compare normal grief to complicated grief (absent grief, disenfranchised grief, and incomplete grief)
5. Differentiate between grief (emotional component), mourning (physical component), and bereavement (cognitive component)

Performance Skills Evaluation

Exam name: Human Development

Candidate Name: _____

Performance assessments may be completed and evaluated any time before the certification is issued. The following performance skills can be used in connection with the associated standards and exam. The evaluator will function as the subject matter expert to determine if the candidate meets the skills requirements with a Yes/No for passing.

Standard 2 – Prenatal Development Research a teratogen and explain how it can affect a developing fetus.	Pass:
Standard 2, 3, & 4 – Child Development Research happenings during your cohort, identify how these have shaped or affected your development and outlook on life.	Pass:
Standard 5 – Child Development - Complete a conversion experiment with a preschooler and a 7-8-year-old. - Identify the differences you observed between the two ages.	Pass:
Standard 6 – Psychosocial Development in Adolescence Recall two personal experiences in your life and relate each to one of Erikson's stages of development.	Pass:
Standard 6, 7, & 8 – Self-Understanding and Identity - Identify where you feel you are in the four major life statuses (Role confusion, Foreclosure, Moratorium and Identity achievement) List reasons that substantiate this status. - Identify some of the challenges faced by adolescents and emerging adults (Drug or alcohol abuse, early sexual activity, bullying, etc.). Explain ways to help avoid the pitfalls of these challenges.	Pass:
Standard 8 – Psychosocial Development in Middle Adulthood Identify which of the Big Five you most relate to in your personality and discuss how this affects your interactions with others.	Pass:
Standard 9 – Psychosocial Development in Late Adulthood List choices or changes you could make in your life to help yourself age well.	Pass:

Evaluator Name:

Date:
