NEW YORK STATE TEACHER CERTIFICATION EXAMINATIONS™

FIELD 076: PHYSICAL EDUCATION TEST DESIGN AND FRAMEWORK

May 2018

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This test design and framework document is designed to provide information about the content and format of a test for the New York State Teacher Certification Examinations[™] (NYSTCE®) program. Education faculty and administrators at teacher preparation institutions may also find the information in this framework useful as they discuss the test with candidates. All test components may differ from those presented here. Furthermore, review of this framework, in whole or in part, does not guarantee an increased likelihood of success on any of the New York State Teacher Certification Examinations. The NYSTCE program is subject to change at the sole discretion of the New York State Education Department, and any changes will fully supersede the information presented in this document. As a reminder, candidates are responsible for contacting their certification officer(s) regarding any changes to the New York State Teacher Certification Examinations.

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FIELD 076: PHYSICAL EDUCATION TEST DESIGN

This test consists of selected-response items measuring content knowledge and one extended constructed-response item measuring pedagogical content knowledge. The constructed-response item is scenario-based and requires candidates to describe an instructional strategy to help students achieve a specific learning goal or an instructional intervention to address a specific learning difficulty, and to provide a rationale for employing that instructional strategy or intervention.

The selected-response items count for 80% of the total test score and the constructedresponse item counts for 20% of the total test score, as indicated in the table that follows. Each selected-response item counts the same toward the total test score. The percentage of the total test score derived from the constructed-response item is also indicated in the table that follows.

The total testing time is 195 minutes. Candidates are free to set their own pace during the test administration. The following estimates were used to determine the total test time:

- The constructed-response item is designed with the expectation of a response up to 60 minutes.
- The selected-response items are designed with the expectation of response time up to 135 minutes.

Further information regarding the content of each competency can be found in the test framework.

Competency		Selected-Response		Constructed-Response	
		Approximate Number of Items	Approximate Percentage of Test Score	Number of Items	Approximate Percentage of Test Score
0001	Individual Growth and Development	20	18%		
0002	Health-Related Fitness	25	22%		
0003	Movement Concepts, Skills, and Activities	25	22%		
0004	Physical Education Curriculum and Pedagogy	20	18%		
0005	Pedagogical Content Knowledge			1	20%
	Total	90	80%	1	20%

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FIELD 076: PHYSICAL EDUCATION TEST FRAMEWORK

Individual Growth and Development Health-Related Fitness Movement Concepts, Skills, and Activities Physical Education Curriculum and Pedagogy Pedagogical Content Knowledge

The New York State Physical Education educator has the knowledge and skills necessary to teach effectively in New York State public schools. The teacher has a broad understanding of the principles of human growth and development, physical fitness, health, and human movement. The teacher understands the development and maintenance of health-related fitness, is familiar with exercise physiology principles, and is able to apply this knowledge in developing activities and fitness planning. The teacher understands the development and learning of motor skills, is familiar with biomechanical principles, and is able to apply knowledge of techniques, strategies, and skills for sports, dance and rhythmic activities, and adventure and outdoor activities. The teacher understands how humans grow and develop, includes modifications and adaptations for diverse learners, recognizes the importance and benefits of lifelong physical activity, and appreciates the relationship between physical activity and the development of criticalthinking skills and positive personal and social behaviors and attitudes. The teacher aligns the physical education curriculum with the New York State P-12 Learning Standards. The teacher applies knowledge of legal and ethical issues related to physical education; can provide information to students about physical education opportunities in their communities and careers related to physical education, including movement, fitness, and sports; and knows how to conduct a safe physical education program in accordance with professional expectations for the field.

As used in this document, the term "research-based" refers to those practices that have been shown to be effective in improving learner outcomes through systematic observation or experiment, rigorous data analysis, ability to replicate results, and publication in a peerreviewed journal. "Evidence-based" refers to strategies empirically shown to improve learner outcomes, though not necessarily based on systematic experiments or published in a peer-reviewed journal.

COMPETENCY 0001—INDIVIDUAL GROWTH AND DEVELOPMENT

Performance Expectations

The New York State Physical Education teacher plays a central role in the development of students' fitness and motor skills. The teacher understands physiological and motor skill development rates and patterns and the concepts of motor learning. The teacher also has a comprehensive understanding of the stages and characteristics of physical, cognitive, social, and emotional development. The teacher recognizes the relationship between involvement in physical activity and the development of positive personal and social behaviors. The teacher researches, identifies, and communicates with students about community resources to enhance students' consumer skills in relation to physical activity and physical fitness.

Performance Indicators

- a. analyzes critical elements and sequencing of motor skills development
- b. identifies principles and components of perceptual-motor abilities (i.e., visual, auditory, tactile, and kinesthetic) and their development and relationship to motor performance
- c. demonstrates understanding of the relationships between motor development and physical, cognitive, social, and emotional development
- d. recognizes the influence of societal, psychological, environmental, cultural, economic, familial, and health factors on motor development and fitness
- e. identifies elements and characteristics of immature and mature motor patterns as they relate to a variety of activities, games, and sports
- f. applies appropriate techniques for detecting errors in motor performance and providing positive corrective feedback
- g. demonstrates understanding of phases and characteristics of physical, cognitive, social, and emotional development during early and late childhood, preadolescence, adolescence, and early and late adulthood, as well as factors that influence them
- h. analyzes the influence of peers, media, and other factors (e.g., parents/guardians, teachers, body image, skill level, social norms) on the development of students' attitudes, behaviors, and motivation related to physical activity
- i. demonstrates knowledge of the relationship between physical activity and academic achievement, and the development of self-esteem, dignity, collaboration, and enhanced critical-thinking and problem-solving skills
- j. applies awareness of community resources and consumer skills in relation to physical activity and individual development

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COMPETENCY 0002—HEALTH-RELATED FITNESS

Performance Expectations

The New York State Physical Education teacher understands and applies the disciplinary core concepts of health-related fitness (i.e., the principles of cardiorespiratory fitness, muscle strength and endurance, flexibility, and body composition). The teacher demonstrates knowledge of the body systems related to movement activities (i.e., skeletal, muscular, nervous, respiratory, digestive, and circulatory). In addition, the teacher knows how to help students design and implement individual fitness plans.

Performance Indicators

- a. describes the general structure and functions of the skeletal, muscular, nervous, respiratory, digestive, and circulatory systems
- b. describes the role of body systems in producing movement and the physiological changes that result from physical activity
- c. recognizes the relationship between physical activity and the prevention of illness, obesity, disease, and premature death; and the risks associated with inactivity
- d. demonstrates knowledge of sound nutritional principles and guidelines, the relationship between nutrition and the functioning of body and energy systems, and criteria and techniques for evaluating dietary plans and products (e.g., herbal supplements, sports drinks) in terms of nutritional value and personal health
- e. identifies the dimensions of personal wellness; and the health, wellness, and lifestyle benefits that result from sound nutritional practices and regular participation in physical activity
- f. demonstrates understanding of basic components of health-related physical fitness (i.e., cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition)
- g. applies principles of physical conditioning and training (e.g., frequency, intensity, type, duration, progressive overload, specificity) and types of training approaches and conditioning programs
- h. selects appropriate types of activities to meet specific fitness goals, including strategies for integrating fitness concepts into everyday experiences
- i. applies appropriate guidelines and procedures for safe and effective exercise and all levels of physical activity (e.g., injury prevention techniques, warm-ups)
- j. recognizes the relationship between physical activity and stress management
- k. demonstrates understanding of principles and activities for promoting healthrelated cardiorespiratory fitness
- I. demonstrates understanding of principles and activities for promoting healthrelated muscular strength and endurance
- m. demonstrates understanding of principles and activities for promoting healthrelated flexibility

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- n. demonstrates understanding of principles and activities for developing and maintaining body compositions that promote wellness
- o. applies principles and procedures for developing and implementing safe and effective individualized fitness and wellness plans

COMPETENCY 0003—MOVEMENT CONCEPTS, SKILLS, AND ACTIVITIES

Performance Expectations

The New York State Physical Education teacher understands the importance of lifelong movement activities in maintaining students' health and providing them with opportunities for challenge, enjoyment, and social interaction. The teacher understands the biomechanics and kinesiology behind various movement activities, as well as principles and approaches for developing fundamental motor skills. The teacher understands strategies for enhancing and integrating a variety of locomotor, nonlocomotor, rhythmic, and manipulative skills. The teacher has extensive knowledge of skills, rules, and safety practices for a variety of sports, dance and aesthetic activities, personal performance activities, and adventure and outdoor activities.

Performance Indicators

- a. applies knowledge of key principles of anatomy, physiology, kinesiology, and biomechanics in relation to health, growth and development, movement, and physical performance
- applies knowledge of biomechanical and scientific principles (e.g., center of gravity, force, buoyancy, rotation, spin, torque, levers, acceleration, trajectory, equilibrium) in the context of various motor activities, individual body mechanics, and safe and efficient movement
- c. promotes understanding of movement concepts related to relationships; spatial, directional, and temporal awareness; qualities of movement; and movement concepts (e.g., self-space, general space, direction, level, pathway, flow, speed)
- d. demonstrates understanding of principles and techniques for developing locomotor, nonlocomotor, rhythmic, manipulative, balance, and weight transfer skills through movement activities
- e. applies principles and techniques for combining and integrating locomotor, nonlocomotor, rhythmic, and manipulative skills in various movement sequences and patterns
- f. analyzes techniques, stages of development, and motor patterns for fundamental motor skills
- g. demonstrates understanding of techniques, skills, skills progressions, offensive and defensive strategies, safety practices, rules, and types and uses of equipment for team passing sports

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- h. demonstrates understanding of techniques, skills, skills progressions, offensive and defensive strategies, safety practices, rules, and types and uses of equipment for net/wall sports
- i. demonstrates understanding of techniques, skills, skills progressions, offensive and defensive strategies, safety practices, rules, and types and uses of equipment for striking/fielding sports
- j. demonstrates understanding of techniques, skills, skills progressions, strategies, safety practices, rules, and types and uses of equipment for target sports
- k. demonstrates understanding of principles, techniques, strategies, skills, rules, and safety practices for dance and aesthetic activities, personal performance activities, and adventure and outdoor activities
- I. recognizes the benefits of participation in physical activity and fosters awareness of community-based leisure activities and enjoyment of and participation in movement activities and sports throughout life

COMPETENCY 0004—PHYSICAL EDUCATION CURRICULUM AND PEDAGOGY

Performance Expectations

The New York State Physical Education teacher demonstrates competence in implementing state standards and in developing curricula. The teacher creates a safe positive learning environment, and is able to make effective modifications and adaptations for diverse learners. The teacher utilizes assessment instruments and methods to guide student learning and measure student performance. The teacher is aware of legal and ethical issues related to physical education. In addition, the teacher knows how to access professional literature to enhance professional growth.

Performance Indicators

- a. analyzes the relationships and interactions among physical education, other subject areas, and the New York State P–12 Learning Standards; and methods for integrating physical education into the overall school curriculum and district plan
- b. demonstrates knowledge of the organization, goals, challenges, and purposes of physical education programs within the structure of schools
- c. understands past and present philosophies, historical and cultural developments, current trends and issues, model programs, and best practices in physical education
- demonstrates knowledge of sociological and psychological perspectives related to sports, fitness, and physical activity (e.g., sports as social phenomena, psychological effects of teamwork and competition, the influence of fitness on selfesteem, organized student activities as alternatives to unhealthy risk-taking behaviors)

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- e. applies communication techniques and collaborative strategies to establish partnerships with families, community members, and school professionals that support students' achievement of goals of the physical education program and school
- f. recognizes the complexity of managing heterogeneous groups of children safely and equitably in physical activity settings; and principles and methods for managing facilities, equipment, staff, and technological resources in the physical education environment (e.g., inspecting equipment, instructional areas, and playing fields prior to activities)
- g. demonstrates knowledge of motor learning concepts such as practice, feedback, self-assessment, modeling/observational learning, and skill analysis as they relate to motor skill acquisition
- h. demonstrates knowledge of physical education instructional approaches and methodologies for a variety of objectives, situations, and developmental levels
- i. utilizes technology and media for planning, implementing, and assessing student learning
- j. implements techniques for adapting and modifying rules, games, equipment, instructional approaches, activities, settings, and grouping strategies to accommodate diverse learners
- k. demonstrates knowledge of appropriate strategies, communication techniques, and resources for addressing diverse learning styles, encouraging positive student interactions, and fostering the engagement and inclusion of all students
- I. demonstrates understanding of physical education assessment methods, tools, and protocols for analyzing and evaluating student achievement in each learning domain (i.e., psychomotor, affective, and cognitive)
- m. demonstrates knowledge of appropriate uses, interpretations, and communication of assessment results
- n. demonstrates understanding of legal and ethical standards and responsibilities associated with teaching physical education (e.g., in relation to safety, risk management, injury prevention, liability, and adequate supervision)
- demonstrates knowledge of state and federal laws and guidelines regarding physical education, gender equity, special education, privacy, and other aspects of students' rights
- p. demonstrates knowledge of how to locate and evaluate commercial, media, and professional sources of information on physical activity, fitness and wellness, and physical education

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COMPETENCY 0005—PEDAGOGICAL CONTENT KNOWLEDGE

Performance Expectations

The New York State Physical Education teacher applies pedagogical content knowledge of key developmental domains (i.e., psychomotor, affective, and cognitive) to design instruction that helps students achieve specific learning objectives. The teacher applies knowledge of effective strategies and develops instructional activities that foster students' conceptual understanding and skills. The assessment of pedagogical content knowledge requires the teacher to distill information related to learner-centered, scientifically research-based, and evidence-based physical education programs, models, and approaches in order to design learning activities that support, engage, and challenge students. The assessment also calls for the teacher to evaluate the appropriateness of various physical education techniques, organizational strategies, equipment, technology, and activities in terms of their relevance to student learning outcomes. In addition, the assessment requires the teacher to explain how learning objectives can be met through physical education activities and how student learning and performance can be evaluated.

Performance Indicators

- a. develops learning objectives and explains their alignment with the New York State Learning Standards
- b. designs instructional activities that promote students' achievement of learning objectives, including the use of appropriate physical education strategies and resources
- c. determines appropriate methods for assessing student readiness for successful participation in instructional activities
- d. explains how student performance and achievement of learning objectives can be measured and evaluated