

MICHIGAN TEST FOR TEACHER CERTIFICATION (MTTC)

TEST OBJECTIVES FIELD 044: PHYSICAL EDUCATION

| Subarea | Approximate Percentage of Questions on Test |
|---------------------------------------------------------|---------------------------------------------|
| Physical Activity, Fitness, and Health | 17% |
| Movement and Lifelong Physical Activities | 27% |
| Growth, Development, and Learning | 14% |
| Planning, Instruction, and Assessment | 14% |
| Management, Motivation, and Communication | 14% |
| Foundations, Reflection, and Professional Collaboration | 14% |

I. PHYSICAL ACTIVITY, FITNESS, AND HEALTH

001 Demonstrate knowledge of concepts related to physical activity and fitness.
Includes relationships among physical activity, fitness, and health; the effects of physical activity and inactivity; basic principles of fitness development; developmentally appropriate fitness goals; energy systems used during exercise; the importance of physical activity and fitness to the health and well-being of individuals; and the effects of lifestyle choices on health-related fitness.

002 Demonstrate knowledge of strategies for developing and maintaining a healthy level of cardiorespiratory endurance.
Includes basic principles of aerobic conditioning; skills, activities, and equipment appropriate for promoting cardiorespiratory endurance; appropriate warm-up and cool-down exercises; and techniques for assessing cardiorespiratory endurance.

003 Demonstrate knowledge of strategies for developing and maintaining a healthy level of muscular strength and endurance.
Includes basic principles of strength and endurance training; skills, activities, and equipment appropriate for promoting muscular strength and endurance; appropriate warm-up and cool-down exercises; and techniques for assessing muscular strength and endurance.

004 Demonstrate knowledge of strategies for developing and maintaining a healthy level of flexibility.
Includes basic principles of developing flexibility; skills and activities appropriate for promoting the flexibility of selected joints of the body; appropriate warm-up and cool-down exercises; safety considerations for static and dynamic stretching; and techniques for assessing flexibility.

TEST OBJECTIVES
FIELD 044: PHYSICAL EDUCATION

005 Demonstrate knowledge of strategies for developing and maintaining a healthy level of body composition.

Includes basic principles and concepts related to body composition; the relationship between body composition and health; the effects of exercise and training on body composition; the influence of heredity on body composition; and techniques for assessing body composition.

II. MOVEMENT AND LIFELONG PHYSICAL ACTIVITIES

006 Apply principles of biomechanics to movement activities.

Includes principles related to motion, stability and balance, force production and absorption, buoyancy, rotation, speed, acceleration, and other biomechanical concepts; and the application of these principles to various movement activities.

007 Demonstrate knowledge of basic principles related to fundamental motor skills.

Includes concepts of body awareness, time, space, direction, force of movement, and rhythm; and techniques for assessing fundamental motor skills individually and in combination.

008 Demonstrate knowledge of methods for developing locomotor skills.

Includes types and characteristics of locomotor skills; activities for promoting these skills that are appropriate for various developmental levels; and techniques for assessing these skills.

009 Demonstrate knowledge of methods for developing object control skills.

Includes types and characteristics of object control skills; activities for promoting these skills that are appropriate for various developmental levels; and techniques for assessing these skills.

010 Demonstrate knowledge of methods for developing postural nonlocomotor skills.

Includes types and characteristics of postural nonlocomotor skills; activities for promoting these skills that are appropriate for various developmental levels; and techniques for assessing these skills.

011 Demonstrate knowledge of methods for developing rhythmic skills.

Includes techniques and activities involving creative movement sequences and rhythm; techniques, sequences, and skills for various forms of dance; activities that are appropriate for various developmental levels; and techniques for assessing these skills.

TEST OBJECTIVES
FIELD 044: PHYSICAL EDUCATION

012 Apply knowledge of skills, rules, and safety practices for individual, dual, and team sports.

Includes techniques, skill progressions, rules, safety practices, and types of equipment for individual, dual, and team sports; activities that are appropriate for various developmental levels; and techniques for assessing skills in these areas.

013 Apply knowledge of skills, rules, and safety practices for recreational activities and outdoor pursuits.

Includes techniques, skill progressions, rules, safety practices, and types of equipment for recreational activities and outdoor pursuits; activities that are appropriate for various developmental levels; and techniques for assessing skills in these areas.

III. GROWTH, DEVELOPMENT, AND LEARNING

014 Demonstrate knowledge of the organic structures of the human body.

Includes the basic structures, organization, and functions of the body's systems (e.g., circulatory, respiratory, musculoskeletal, nervous); how these systems adapt to physical activity; how these systems contribute to motor performance and fitness; and how these systems are interrelated and interdependent.

015 Demonstrate knowledge of physical growth and development.

Includes stages and characteristics of physical growth and development between infancy and adulthood; individual variations in growth and development; characteristics of motor and perceptual motor development; factors that influence growth and development (e.g., heredity, nutrition, environment); the relationship between students' growth and development and their learning; and the ways physical activity or inactivity influence growth and development.

016 Demonstrate knowledge of how individuals grow and develop cognitively, socially, and emotionally.

Includes characteristics of cognitive, psychosocial, and emotional development during childhood, preadolescence, adolescence, and adulthood; the ways physical activity and inactivity influence growth and development in these areas; the influence of expectations related to gender, body image, skill level, and culture on the development of self-concept; and the influence of peers on students' social attitudes and behaviors.

**TEST OBJECTIVES
FIELD 044: PHYSICAL EDUCATION**

017 Demonstrate knowledge of how students differ in their approaches to learning in a physical education setting.

Includes the characteristics of different learning styles (e.g., visual, auditory, kinesthetic) and multiple intelligences (e.g., linguistic, logical-mathematical, interpersonal); basic elements of various learning theories (e.g., social learning theory, health belief model, transtheoretical model); ways these theories are applied in a physical education setting; and ways learning in physical education is influenced by various factors (e.g., special/diverse needs, personal experiences and circumstances, culture, health).

IV. PLANNING, INSTRUCTION, AND ASSESSMENT

018 Demonstrate knowledge of instructional design and planning for physical education.

Includes techniques for planning physical education lessons to achieve program goals and objectives; knowledge of selected types of curricula and curricular models (e.g., sport education model, physical fitness model, movement education model); design of instructional sequences and learning experiences that maximize learner participation and success; principles of effective instruction (e.g., giving clear explanations, conducting demonstrations, providing feedback); the importance of assessing lesson plans and revising them based on student needs and changing circumstances; and the uses of a variety of equipment and resources (e.g., computers, videotapes, local experts) to enhance learning in a physical education setting.

019 Apply developmentally appropriate instructional strategies in a physical education setting.

Includes techniques for implementing instructional strategies in a physical education setting based on developmental levels, learning styles, available resources, and safety issues; techniques for promoting students' problem-solving and critical-thinking strategies; techniques, advantages, and limitations of various instructional strategies (e.g., cooperative learning, direct instruction, interdisciplinary instruction); roles the teacher can assume to facilitate learning (e.g., model, assessor, monitor); methods for modifying physical education activities to accommodate students with disabilities; strategies for working with students for whom English is not their primary language; and instructional strategies that are sensitive to students' personal, family, cultural, and community experiences.

TEST OBJECTIVES
FIELD 044: PHYSICAL EDUCATION

020 Demonstrate knowledge of safety concerns and procedures related to physical education programs.

Includes the principles of instructional organization and management that promote student safety; methods for conducting environmental checks of equipment, field, and movement space; exercises and body positions that are indicated and those that are contraindicated in physical education activities; and principles and techniques of basic first aid and CPR.

021 Demonstrate knowledge of formal and informal assessment strategies to evaluate the physical, cognitive, social, and emotional development of learners in a physical education setting.

Includes the characteristics, uses, advantages, and limitations of different types of assessment (e.g., motor performance and physical fitness, portfolio and authentic assessments); rationales for selecting and using developmentally appropriate assessment strategies and instruments; measurement issues (e.g., validity, reliability, bias); the use of assessment as an integral part of physical education instruction to provide feedback to learners; strategies for involving students in self-assessment; and interpretation and use of performance data to make instructional decisions and report progress.

V. MANAGEMENT, MOTIVATION, AND COMMUNICATION

022 Demonstrate knowledge of principles and methods of instructional management in a physical education setting.

Includes the importance of and strategies for establishing a positive climate that promotes mutual respect, support, safety, and cooperative participation in the physical education setting; methods for organizing, allocating, and managing resources (e.g., time, space, equipment, activities, teacher attention); and management techniques that create a smoothly functioning learning environment and maximize learner participation in physical education activities.

023 Demonstrate knowledge of factors related to individual and group motivation in a physical education setting.

Includes factors related to intrinsic motivation; methods for motivating learners to participate in developmentally appropriate physical activities inside and outside of school; strategies for positive behavior change; the use of appropriate motivational strategies to meet the needs of individuals; and strategies to help learners become self-motivated.

**TEST OBJECTIVES
FIELD 044: PHYSICAL EDUCATION**

024 Demonstrate knowledge of positive personal and social traits that can be fostered within the context of physical activity.

Includes the contribution and value of physical activity to lifelong health and well-being; the potential social-cultural benefits of participation in physical activities; ways positive traits (e.g., confidence, self-discipline, cooperation) can be promoted through involvement in physical activities; and strategies that help learners acquire responsible personal and social behaviors.

025 Demonstrate knowledge of effective communication techniques to foster inquiry, collaboration, and engagement in physical activity.

Includes characteristics and uses of various communication techniques (e.g., verbal, visual, kinesthetic); the appropriate use of verbal and nonverbal cues; how personal differences (e.g., cultural, economic, environmental) affect communication; ways to foster sensitive interactions with and among learners; and strategies for communicating managerial and instructional information in a variety of ways (e.g., bulletin boards, task cards, music, computers and other technologies).

VI. FOUNDATIONS, REFLECTION, AND PROFESSIONAL COLLABORATION

026 Demonstrate knowledge of the foundations of physical education.

Includes the historical development of and cultural contributions to physical education; philosophies and contributions of innovators in the field; various games, sports, and physical activities that have become popular at different times; goals and objectives of physical education; and current philosophies, trends, and practices in physical education programs.

027 Demonstrate knowledge of the importance of physical education and fitness to students.

Includes the importance of developing physically educated individuals; the relationships between physical education content and the content of other subject matter areas; strategies for promoting lifelong fitness; ways physical activity can foster self-expression and provide enjoyment and challenge; the contribution of physical education instruction to students' development of competence and self-confidence; and the use of physical education to promote students' cooperative skills.

028 Demonstrate knowledge of the roles and responsibilities of physical education teachers in the learning community.

Includes ways to advocate for physical education in the school and community; strategies for communicating and working with parents/guardians and the community (e.g., PTA, advisory committees) to promote physical education programs and goals; laws related to the rights and safety of the learner and the responsibilities of the teacher (e.g., equity, inclusion, confidentiality, privacy, duty to protect, responsibility to warn); and appropriate ways to consult with counselors and other professionals to assist students.

**TEST OBJECTIVES
FIELD 044: PHYSICAL EDUCATION**

029 Demonstrate knowledge of methods for developing professional relationships and reflecting on teaching practices.

Includes strategies for collaborating with school colleagues; the importance and use of self-assessment and problem-solving strategies to reflect on physical education teaching practices; and the characteristics and functions of professional literature and other resources available for professional development (e.g., journals, professional associations, workshops) in physical education.