

# EXAM CONTENT OUTLINE

## PURPOSE

### THE AIM OF THE AMERICAN COUNCIL ON EXERCISE® (ACE®)

Personal Trainer Certification examination is to evaluate if individuals have the knowledge and skills necessary to perform tasks that are critical for safe and competent practice as entry-level ACE Certified Personal Trainers. To ensure the ACE Personal Trainer Certification stays relevant and current, ACE conducts a role delineation study (RDS) every five years to update the composition and focus of the ACE Personal Trainer Certification program and exams.

In May 2011, ACE and Castle Worldwide, Inc., a certification and licensure design, development, and testing service company, conducted an RDS for the ACE Personal Trainer Certification to identify the primary tasks performed by personal trainers on a regular basis. The fundamental purpose of this RDS was to establish and validate appropriate content areas for the ACE Personal Trainer Certification examination. The result of this process includes this exam content outline, which serves as a blueprint for each ACE Personal Trainer Certification examination. As you prepare for the exam, it is important to remember that all exam questions are based on this outline.

The blueprint is comprised of tasks, knowledge, and skills necessary for a personal trainer to perform job responsibilities at the entry-level of competence for the profession. These tasks, knowledge, and skills were established by the RDS panel of personal training subject matter experts, and then sent out to several thousand ACE Certified Personal Trainers for validation.

### ATTENTION EXAM CANDIDATES!

When preparing for an ACE certification exam, be aware that the material presented in this manual, or any text, may become outdated due to the evolving nature of the fitness industry, as well as new developments in current and ongoing research. These exams are based on an in-depth job analysis and an industry-wide validation survey. By design, these exams assess a candidate's knowledge and application of the most current scientifically based professional standards and guidelines. The dynamic nature of this field requires that ACE certification exams be regularly updated to ensure that they reflect the latest industry findings and research. Therefore, the knowledge and skills required to pass these exams are not solely represented in this or any industry text. In addition to learning the material presented in this manual, ACE strongly encourages all exam candidates and fitness professionals to keep abreast of new developments, guidelines, and standards from a variety of valid industry sources.

For the most up-to-date version of the Exam Content Outline, please go to [www.ACEfitness.org/PTexamcontent](http://www.ACEfitness.org/PTexamcontent) and download a free PDF.

It is the position of ACE that the recommendations outlined here are not exhaustive to the qualifications of a personal trainer, but represent a minimum level of proficiency and theoretical knowledge required to practice as a competent and safe personal trainer. All tasks are assessed on every exam; however, it is important to note that not all knowledge and skill statements listed in the exam content outline will be addressed on each exam administration.

## DESCRIPTION

**THE 2011 PERSONAL TRAINER ROLE DELINEATION STUDY DEFINED THE** task, knowledge, and skill statements in the current exam content outline. Tasks are the individual functions, whether mental or physical, required for certain aspects of a job or profession. Domains are the major areas of responsibilities or activities of a job or profession, and they represent the logical grouping of tasks.

Knowledge and skill statements list the knowledge and/or skills necessary to perform a given task. They include information, actions, or other learnable skills a candidate must possess in order to perform a specific task. An organized body of factual or procedural information is called knowledge, while the proficient physical, verbal, or mental manipulation of data, people, or objects is called skill.

The exam content outline for the ACE Personal Trainer Certification examination has 15 tasks grouped into four domains. Through the RDS process, each domain was assigned a weight that represents the approximate percentage of exam questions that will fall within that domain on each exam. The ACE Personal Trainer Certification exam content outline is presented below, with each domain and associated percentage weight, the tasks that fall within each domain, and the knowledge and skill statements that are associated with performing each task.

## DOMAIN I - CLIENT INTERVIEWS AND ASSESSMENTS

## 31%

**CREATE A CREDIBLE AND TRUSTING RELATIONSHIP WITH CLIENTS TO OBTAIN** relevant health and lifestyle information necessary for successful program design and outcomes.

**TASK 1 - Obtain health, medical, and exercise history and lifestyle information (e.g., personal, physical, environmental, nutritional, and occupational factors) using questionnaires, interviews, and available documents to determine risk stratification, identify the need for medical clearance and referrals, and facilitate program design.**

### Knowledge of:

1. Appropriate dietary assessment protocols, purposes, inherent risks, and benefits (e.g., 24-hour diet recall, food logs, food frequency questionnaire)
2. Appropriate information required to design and implement programs [e.g., health history questionnaires (PAR-Q, etc.), interview questions, risk factors, legal waivers, and allied healthcare professionals]
3. Communication styles and strategies (e.g., nonverbal, verbal cues)
4. Population-specific health and exercise considerations and contraindications (e.g., chronic disease, older adults, prenatal and postpartum, children)
5. Risk factors for cardiac and other chronic diseases and conditions, and elements of risk stratification
6. The impact of age, culture, and other demographic factors on building and maintaining rapport

### Skill in:

1. Building and maintaining rapport, credibility, and trust

2. Interpreting interview and questionnaire information, stratifying risk according to ACSM standards, interpreting medication effects on exercise, and obtaining medical clearance and referrals

**TASK 2 - Assess clients' current attitudes, preferences, goals, and readiness for behavior change using questionnaires and interviews to identify potential barriers, motivators, and expectations necessary to set appropriate program goals.**

**Knowledge of:**

1. Appropriate questions and questionnaires to determine client attitudes, preferences, and readiness for behavior change
2. Common types of exercise barriers, motivators, and client expectations
3. Communication styles and strategies (e.g., nonverbal, verbal cues)
4. Goal setting, process and outcome goals, SMART goals

**Skill in:**

1. Building and maintaining rapport, credibility, and trust
2. Determining clients' attitudes, preferences, and readiness for behavior change
3. Effective interviewing (e.g., open-ended questions, clarification, probing)

**TASK 3 - Identify and evaluate the quality of client movement (e.g., balance, stability, and mobility) through observations and assessments, to develop appropriate exercise programming designed to improve movement efficiency and enhance activities of daily living, overall physical performance, and injury prevention and recovery.**

**Knowledge of:**

1. Anatomy and kinesiology
2. Physical laws of motion (e.g., inertia, acceleration, momentum, impact and reaction forces, lever classes, muscle and force production)
3. Static and dynamic posture, biomechanics, and joint mobility and stability

**Skill in:**

1. Assessing client kinesthetic awareness
2. Assessment of the impact of athletic, recreational, and occupational activities, as well as activities of daily living, on program design
3. Choosing and administering appropriate assessments (e.g., balance, stability, mobility)
4. Observing quality of movement and posture

**TASK 4 - Select and conduct physiological assessments (e.g., cardiorespiratory fitness, muscular strength and endurance, flexibility, body composition, heart rate, blood pressure) based on client interviews, questionnaires, and standardized protocols to facilitate safe and effective program design and to monitor changes over time.**

**Knowledge of:**

1. Acute physiological responses to assessments with consideration for individual differences (e.g., age, gender, disease, environmental conditions)
2. Appropriate introduction, sequencing, and revisiting of assessments throughout the program
3. Motivating and de-motivating factors, and ethics of fitness assessment
4. Physiological assessment protocols (e.g., administration, reporting, data, termination criteria)

**Skill in:**

1. Accurately assessing cardiorespiratory fitness, muscular strength and endurance, flexibility, body composition, and resting measures

2. Communicating results of assessments, including improvements and regressions over time
3. Determining clients' attitudes, preferences, and readiness for behavior change
4. Determining the need to terminate an assessment

## DOMAIN II - PROGRAM DESIGN AND IMPLEMENTATION

**33%**

**CREATE CLIENT PROGRAMS THAT FOCUS ON HEALTHY LIFESTYLES THROUGH** the development of individualized physical activity, nutrition, and education necessary to improve and maintain health, fitness, weight, body composition, and metabolism.

**TASK 1 - Interpret the results of the client interview and assessment data (e.g., client goals, attitudes, motivations), define program goals, and design safe and effective exercise and lifestyle programs.**

### Knowledge of:

1. Appropriate dietary assessment protocols, purposes, inherent risks, and benefits (e.g., 24-hour diet recall, food logs, food frequency questionnaire)
2. Behavior change principles in effective goal setting (SMART)
3. Established norms and guidelines for interpreting client assessment data (e.g., cardiorespiratory fitness, flexibility, muscular strength and endurance, body composition, blood pressure)
4. Factors related to an unhealthy lifestyle
5. General anatomy, physiology (e.g., neuromuscular, musculoskeletal, cardiorespiratory), kinesiology, and biomechanics
6. Potential barriers and challenges that may interfere with goal setting and goal attainment
7. Principles of nutrition and weight management

### Skill in:

1. Communicating results of assessments, including improvements and regressions over time
2. Goal setting, process and outcome goals, SMART goals
3. Identifying physiological responses based on observation and feedback during assessments and exercise
4. Interpreting the findings from the various assessments (e.g., cardiorespiratory fitness, flexibility, muscular strength and endurance, body composition, blood pressure)
5. Stratifying risk through the evaluation of physical and psychological conditions that might indicate the need for referral to appropriate allied health professionals

**TASK 2 - Apply appropriate exercise parameters (e.g., frequency, intensity, duration, type) and principles (e.g., overload, specificity, progression) for cardiorespiratory fitness, muscular strength and endurance, and flexibility using current guidelines to develop safe and effective exercise programs.**

### Knowledge of:

1. Concepts of fitness (e.g., cardiorespiratory, body composition, muscular strength, muscular endurance, flexibility, balance)
2. Exercise principles (e.g., overload, specificity, diminishing returns, recovery, reversibility, progression)
3. Expected physiological and psychological adaptations to exercise
4. General anatomy, physiology (e.g., neuromuscular, musculoskeletal, cardiorespiratory), kinesiology, and biomechanics

5. Industry guidelines (e.g., ACSM) for frequency, intensity, duration, and type for cardiorespiratory, muscle strength and endurance, and flexibility programs
6. Joint-specific range of motion
7. Organizations that establish and publish scientifically based lifestyle-modification standards and guidelines (e.g., ACSM, ACOG, NIH, NSCA, CDC)

**Skill in:**

1. Designing individualized training programs (e.g., cardiorespiratory, resistance, mobility, stability) in accordance with program goals
2. Identifying appropriate program components and implementing exercise techniques that promote a positive training effect
3. Modifying and terminating exercise techniques as needed to promote goal attainment
4. Modifying teaching style and program components to accommodate fitness and/or health needs (e.g., age, pregnancy, diabetes, osteoporosis, cardiovascular disease)

**TASK 3 - Incorporate skill-related exercises (e.g., stability, mobility, coordination, balance, power, speed, agility) and appropriate equipment into client programs, in accordance with scientific research, to improve movement efficiency and enhance activities of daily living, overall physical performance, and injury prevention and recovery.**

**Knowledge of:**

1. Neuromuscular adaptations to skill-related exercise
2. Physical laws of motion (e.g., inertia, acceleration, momentum, impact and reaction forces, lever classes, muscle and force production)
3. Posture and movement (e.g., optimal joint alignment, gross muscle imbalances, movement compensations)
4. Static postural assessment and movement analysis (e.g., postural and muscle imbalances)
5. Static and dynamic posture, biomechanics, and joint mobility and stability
6. Strategies and techniques for reducing risk of musculoskeletal injury (e.g., regression, progression, overtraining)

**Skill in:**

1. Identifying inappropriate movement patterns
2. Identifying physiological demands of activities of daily living
3. Identifying physiological responses based on observation and feedback during assessments and exercise
4. Implementing safe and effective exercise programs to address muscle weakness and imbalance
5. Modifying teaching style and program components to accommodate fitness and/or health needs (e.g., age, pregnancy, diabetes, osteoporosis, cardiovascular disease)

**TASK 4 - Instruct clients on safe and effective exercise techniques (e.g., intensity, breathing, tempo, movement patterns, postural alignment) and equipment use, using a variety of cues (e.g., verbal, visual, kinesthetic) to achieve program goals.**

**Knowledge of:**

1. Appropriate exercise techniques using a variety of safe and effective modalities
2. Communication and listening techniques (e.g., active listening, appropriate eye contact, reflecting and other attending behaviors, nonverbal and verbal communication)
3. Cueing techniques (e.g., verbal, visual, kinesthetic)
4. Educational strategies to promote client safety and program success
5. Methods for measuring and monitoring exercise intensity (e.g., RPE, HR)

6. Nutritional requirements before, during, and after physical activities (e.g., hydration and energy needs)

**Skill in:**

1. Modifying communication style and content as appropriate to the client (e.g., learning style, sensory limitations, educational background, primary language, and cultural, ethnic, and personal differences)
2. Modifying and terminating exercise techniques as needed to promote goal attainment
3. Recognizing and addressing compensatory movements/patterns
4. Teaching safe and effective exercise techniques using a variety of modalities and offering appropriate feedback

## DOMAIN III - PROGRAM PROGRESSION AND MODIFICATIONS

19%

**MONITOR, EVALUATE, AND MODIFY PROGRAMS DESIGNED TO IMPROVE** health, fitness, weight, body composition, and metabolism, and maintain client adherence.

**TASK 1 - Promote program adherence through reinforcement of client motivators, education regarding the benefits of exercise and leading a healthy lifestyle, and modification of program parameters to achieve program goals.**

**Knowledge of:**

1. Alternative methods, products, and services (e.g., diets, supplements, equipment, apparel) and associated risks
2. Communication styles and techniques that assure collaborative goal setting based on clients' needs, preferences, and expectations
3. Credible educational resources that facilitate lifestyle modifications (e.g., ACSM, USDA)
4. Building and maintaining rapport, credibility, and trust

**Skill in:**

1. Educating clients about healthful food and beverage selections based on food guidelines, labels, and methods of preparation
2. Educating clients about the continued benefits of safe practices and consistent training
3. Educating clients on how to manage external factors that impact adherence (e.g., time, socio-economic, social)
4. Modifying and terminating exercise techniques as needed to promote goal attainment

**TASK 2 - Recognize and respond to lapses in program adherence by identifying client barriers and helping to establish and implement support systems and/or solutions.**

**Knowledge of:**

1. Biological, psychological, physiological, and social (e.g., self-esteem/efficacy, anorexia, bulimia) factors that influence program participation and adherence
2. Cultural, ethnic, and personal differences as they influence communication, lifestyle, dietary habits, and personal and interpersonal behaviors (e.g., common assumptions, misconceptions, complicating factors)

**Skill in:**

1. Adjusting program variables (e.g., sets, reps, intensity, rest periods, tempo) to maximize adherence
2. Assisting clients to develop coping strategies to overcome barriers

3. Communication styles and strategies (e.g., nonverbal, verbal cues)
4. Identifying potential barriers to exercise, healthy dietary choices, and weight management that influence program adherence, goal setting, and goal attainment
5. Identifying the need for referral

**TASK 3 - Routinely evaluate client exercise programs by using assessment data, observations, and client feedback to progress and modify programs as needed.**

**Knowledge of:**

1. Appropriate dietary assessment protocols, purposes, inherent risks, and benefits (e.g., 24-hour diet recall, food logs, food frequency questionnaire)
2. Appropriate frequency and sequencing of assessments
3. Appropriate modifications to program components to accommodate movement, fitness, and/or health status changes
4. Appropriate progression techniques (e.g., flexibility, cardiorespiratory)
5. Industry guidelines (e.g., ACSM) for frequency, intensity, duration, and type for cardiorespiratory, muscle strength and endurance, and flexibility programs
6. Selecting and administering a variety of physiological assessments

**Skill in:**

1. Gathering client performance and interview feedback
2. Reassessing program goals
3. Recognizing muscle function, weakness, and imbalances
4. Recognizing signs and symptoms of overtraining, detraining, lapses, inappropriate progression, injury, and other program risks

## DOMAIN IV - PROFESSIONAL CONDUCT, SAFETY, AND RISK MANAGEMENT

17%

**FULFILL RESPONSIBILITIES THROUGH ONGOING EDUCATION,** collaboration, and awareness of professional standards and practices necessary to protect clients, stakeholders, and the personal trainer.

**TASK 1 - Apply risk-management strategies in accordance with recognized standards, guidelines, laws, and regulations to protect the client, personal trainer, and other relevant parties in order to reduce the risk of injury and liability.**

**Knowledge of:**

1. Applicable guidelines, standards, laws, and regulations (e.g., IHRSA, ACE, ACSM, OSHA, NSCA)
2. Appropriate professional liability insurance
3. Basic procedures for injury management and emergency response within the scope of practice for a personal trainer (e.g., CPR, AED, first aid, RICE, personal protective equipment)
4. Basic safety inspection and preventative maintenance of exercise equipment
5. Liability considerations associated with acting outside the scope of practice as well as factors contributing to negligence (e.g., acts of commission, acts of omission).
6. Scope of practice, accepted standards for care, and professional conduct for personal trainers

**Skill in:**

1. Completing appropriate reports and documentation (e.g., incident reports, accident reports, waivers, informed consents, SOAP notes)
2. Recognizing common liability exposures for personal trainers (e.g., level of supervision, qualifications, proper instruction)

3. Referring clients to more qualified fitness, health, or medical professionals when necessary

**TASK 2 - Document client-related data, communications, and progress using a secure record-keeping system in accordance with legal and regulatory requirements to maintain confidentiality and continuity of care, and to minimize liability.**

**Knowledge of:**

1. Legal and regulatory requirements (e.g., HIPAA, FERPA)
2. Methods to maintain client confidentiality and storage of data
3. Professional conduct regarding technology, communication, and protection of privacy (e.g., social media, email, instant messaging)

**Skill in:**

1. Completing appropriate reports and documentation (e.g., incident reports, accident reports, waivers, informed consents, SOAP notes)
2. Differentiating between confidential and non-confidential documents and information

**TASK 3 - Use credible resources to maintain and enhance competency by staying current with scientifically based research, theories, and practices in order to provide safe and effective services.**

**Knowledge of:**

1. Appropriate organizations and agencies (e.g., ACE, ACOG, ACSM, DHHS, NSCA, USDA) that establish and publish scientifically based research and guidelines for the general public, health/fitness professionals, and special populations (e.g., older adults, youth, pre- and postnatal)
2. Available and credible continuing education providers, programs, and resources (e.g., conferences, workshops, home study and online courses, scientific journals, professional periodicals)

**Skill in:**

1. Applying appropriate knowledge and skills obtained through continuing education
2. Critically evaluating new products and services
3. Recognizing credible resources

**TASK 4 - Conduct assessments of the exercise space, equipment, and environment in order identify potential hazards and undertake necessary modifications to provide a safe environment for clients and the personal trainer.**

**Knowledge of:**

1. Basic procedures for injury management and emergency response within the scope of practice for a personal trainer (e.g., CPR, AED, first aid, RICE, personal protective equipment)
2. Basic safety inspection and preventative maintenance of exercise equipment
3. Industry exercise guidelines for environmental conditions (e.g., altitude, weather, temperature/humidity)
4. Industry health/fitness facility guidelines and standards

**Skill in:**

1. Identifying and responding to emergency situations
2. Identifying and responding to safety hazards
3. Instructing and supervising the safe and effective use of exercise equipment