



NASM-CPT APPROVED REFERENCES

PRIMARY REFERENCES:

1. NASM Essentials of Personal Fitness Training, 6th Edition
2. NASM Essentials of Personal Fitness Training, 5th Edition
3. ACSM's Resource for Personal Trainers, 4th Edition
4. ACE Personal Trainer Manual, 4th Edition
5. Trail Guide to the Body, 5th Edition (Biel)
6. The Fundamentals for the Certified Personal Trainer, 6th Edition (NFPT)
7. Essentials of Strength Training and Coordinating, 4th Edition

SECONDARY REFERENCES:

1. Nutrition, 5th Edition (Insel, Ross, McMahon, Bernstein)
2. Atlas of Human Anatomy, 6th Edition (Netter)
3. Movement: Functional Movement Systems: Screening, Assessment, Corrective Strategies (Cook)
4. Anatomy and Physiology for Health & Physiology, 2e Jahangir Moini ISBN: 9781284036947
5. ACSM's Guidelines for Exercise Testing and Prescription, 9th, 9781609136055
6. ACSM's Exercise Management for Persons with Chronic Diseases and Disabilities ISBN 9780736074339
7. Exercise Technique Manual for Resistance Training, 2nd ISBN: 9780736071277
8. Lifestyle Wellness Coaching, Gavin; ISBN: 9781450414845
9. Start Your Own Personal Training Business, ISBN: 9781599184265
10. ACSM's Health/Fitness Facility Standards and Guidelines, ACSM, ISBN: 9780736051538
11. NASM Behavior Change, online only



NASM-CPT AGGREGATE SCORE INFORMATION

DATES OF REPORT: JANUARY 1, 2015 – DECEMBER 31, 2015

TOTAL OF NASM-CPT EXAM CANDIDATES:

<i>EXAM</i>	<i>TOTAL</i>	<i>PASSING</i>	<i>FAILING</i>	<i>PASSING PERCENT</i>
<i>NASM-CPT</i>	<i>22,266</i>	<i>14,945</i>	<i>7,321</i>	<i>67%</i>



UPDATED NASM CPT EXAM BLUEPRINT

The National Academy of Sports Medicine (NASM) contracted with Professional Examination Service (ProExam) to conduct a practice analysis of Certified Personal Trainers (CPTs) in 2015.

This practice analysis study defines the current knowledge, skills and abilities that must be demonstrated by entry-level credential holders to safely and successfully practice. This study also serves as the “blueprint” for determining the content (performance domains) for the certification exam(s).

PERFORMANCE DOMAINS AS VALIDATED BY THE 2015 JOB ANALYSIS STUDY INCLUDE THE INFORMATION BELOW:

Domain 1:	Basic and Applied Sciences and Nutritional Concepts	17%
Domain 2:	Assessment	18%
Domain 3:	Program Design	21%
Domain 4:	Exercise Technique and Training Instruction	22%
Domain 5:	Client Relations and Behavioral Coaching	12%
Domain 6:	Professional Development and Responsibility	10%

DOMAIN 1: BASIC AND APPLIED SCIENCES AND NUTRITIONAL CONCEPTS

KNOWLEDGE OF:

K1. Concepts and structures of anatomy including nervous system, muscular system, skeletal system, cardiorespiratory system and endocrine system

K2. Functions of exercise physiology related to:

- a. nervous system
- b. muscular system
- c. skeletal system
- d. endocrine system
- e. cardiorespiratory system
- f. digestive system
- g. bioenergetics and exercise metabolism

K3. Functional biomechanics (such as levers, force, torque)



DOMAIN 1 CONTINUED...

- K4.** Principles of human movement science (such as muscle action spectrum, force-couple relationships, length-tension relationships)
- K5.** Principles of motor development (motor learning, motor control, motor behavior)
- K6.** Macronutrients (carbohydrates, protein, fat)
- K7.** Micronutrients (vitamins and minerals)
- K8.** Hydration concepts
- K9.** Recommendations and guidelines for caloric intake and expenditure
- K10.** Units of energy measurement (Kcals/Calories)
- K11.** Dietary reference intakes
- K12.** Portion sizes, meal timing and frequency
- K13.** Crash/fad/myth diets
- K14.** Common nutritional supplements including possible risks, benefits, uses and effects
- K15.** Food and supplement label reading
- K16.** Factors that may influence weight management physiology (such as law of thermodynamics, poor sleep, endocrine abnormalities, medication)

DOMAIN 2: ASSESSMENT

TASKS

- 1.** Select, perform, document and interpret results of subjective assessments using tools and techniques such as questionnaires and interviews to assess client's medical history, needs and readiness for fitness program.
- 2.** Select, perform, document, and interpret results of:
 - a. Static postural assessments (such as assessment of upper and lower extremities and lumbo-pelvic-hip complex).
 - b. Movement assessments (such as squat, gait, push/pull, single leg squat) in order to evaluate proper versus improper movement patterns.



DOMAIN 2 CONTINUED...

- c. Strength, muscular endurance, and power assessments (such as, 1-repetition maximum strength tests, push-up test, vertical jump test).
- d. Speed, agility, and quickness assessments (such as 40 yard dash, Pro shuttle, L.E.F.T. test).
- e. Cardiorespiratory assessments (such as 3-minute Step Test, Rockport Walk Test, VO2MAX Test).
- f. Physiological assessments (such as resting heart rate, and blood pressure).

3. Select, perform, document, and interpret results of body composition assessments (such as Body Mass Index, skinfold, circumference measurements).

KNOWLEDGE OF:

- K17.** Physical Activity Readiness Questionnaire (PAR-Q) assessment
- K18.** Essential elements of personal, occupational, and family medical history
- K19.** Medical risk factors (such as previous injuries or surgeries, chronic pain, diseases, medications)
- K20.** Elements of a lifestyle questionnaire (such as sleep, stress level, smoking, alcohol)
- K21.** Cardiorespiratory assessments (such as 3-minute Step Test, Rockport Walk Test, VO2MAX).
- K22.** Physiological assessments relevant to CPTs (such as resting heart rate, blood pressure)
- K23.** Kinetic chain checkpoints during static posture assessment (ankles, knees, lumbo-pelvic-hip complex, shoulders, head)
- K24.** Applicability of assessments from other health professionals (such as blood pressure, cholesterol, glucose)
- K25.** Body composition assessments (such as skin fold calipers, circumference, bioelectrical impedance)
- K26.** Performance assessments (such as 1-repetition maximum, vertical jump, long (broad) jump)
- K27.** Types of movement assessments (such as Overhead Squat, Single-leg Squat, gait)
- K28.** Body composition calculations (such as fat mass, lean mass, waist-to-hip ratio)
- K29.** Considerations and modifications for performing assessments with special populations (such as seniors, youth, prenatal)
- K30.** Standards for assessments and outcome expectations for special populations (such as youth, seniors, obese)
- K31.** Indicators that client's condition is out of scope and requires referral
- K32.** Criteria for reassessment (such as time lapsed, change in goals, lifestyle change)



DOMAIN 3: PROGRAM DESIGN

TASKS

1. Design client-specific program based on assessment results including:

- a. Flexibility training
- b. Resistance training
- c. Cardiorespiratory training
- d. Core training
- e. Balance training
- f. Plyometrics (reactive) training
- g. Speed Agility Quickness (SAQ) training

2. Design and apply program modifications as needed based on variables such as modalities, space, time, client abilities and current condition.

KNOWLEDGE OF:

K33. Flexibility training methods (such as self-myofascial release (SMR), static, active-isolated, and dynamic stretching)

K34. Resistance training systems (such as single set, multiple set, super set, pyramid set, circuit training, vertical loading, horizontal loading)

K35. Resistance training methods (such as stabilization, strength, power) and modalities (such as machines, body weight, free weights)

K36. Cardiorespiratory training methods (such as zone/stage training, interval training, steady state)

K37. Core training methods for core-stabilization (such as plank, bird dog, bridge), core-strength (such as, reverse crunches, ball crunches, cable rotations) and core-power (such as soccer throw, rotation chest pass, medicine ball pullover throw)

K38. Balance training methods for stabilization (such as single-leg balance, single-leg balance and reach, single-leg windmill) strength (such as single-leg squat, single-leg deadlift, lunge to balance) and power (such as single-leg box hop-up, single-leg box hop-down, multiplanar single-leg hop)

K39. Proprioceptive manipulation (such as closing eyes, nodding head, single-leg stand)

K40. Plyometric (reactive) training methods for stabilization (such as squat jump with stabilization, box jump-up to stabilization, multiplanar jumps with stabilization) strength (such as butt kicks, tuck jumps, squat jump) and power (such as Box run steps, ice skaters, proprioceptive plyometrics)



DOMAIN 3 CONTINUED...

- K41.*** Speed Agility Quickness (SAQ) training methods (such as resisted sprints, cone drills, agility ladder drills)
- K42.*** Exercise progression/regression
- K43.*** General adaptation syndrome
- K44.*** Principle of specificity
- K45.*** Principle of overload
- K46.*** Principle of variation
- K47.*** Periodization concepts (linear, undulating)
- K48.*** Acute variables (such as sets, repetitions, exercise selection, progressions, FITTE principle)
- K49.*** Risk vs. reward of different modalities and exercises
- K50.*** Overtraining, rest, and recovery
- K51.*** Current trends (identification of) and their applicability to individual training programs
- K52.*** Types of fitness technology (such as heart rate monitors, performance trackers, calorie counters) and their uses and benefits
- K53.*** Considerations for exercise program design for special populations (such as seniors, youth, prenatal)

DOMAIN 4: EXERCISE TECHNIQUE AND TRAINING INSTRUCTION

TASKS

- 1.*** Provide instruction and demonstrate proper exercise technique for clients
- 2.*** Observe, analyze, and provide feedback on client's exercise technique to ensure safe and effective movement
- 3.*** Identify need for and implement appropriate exercise modifications to ensure safety and effectiveness of program
- 4.*** Determine need for, select, and administer proper spotting techniques



DOMAIN 4 CONTINUED...

KNOWLEDGE OF:

K54. Proper set-up and technique of:

- a. Flexibility training methods (such as self-myofascial release (SMR), static, active-isolated, and dynamic stretching)
- b. Core exercises
- c. Balance exercises
- d. Plyometric (reactive) exercises
- e. Speed, agility and quickness (SAQ) exercises
- f. Resistance training exercises
- g. Warm-up protocol
- h. Cool-down protocol

K55. Kinesthetic, auditory, and visual cueing techniques

K56. Safe training practices (such as maintaining a safe environment, monitoring exercise intensity, proper equipment setup)

K57. Application and modalities of exercise regressions and progressions

K58. Safe, effective, and professional spotting techniques

K59. Proper breathing techniques during exercise

K60. Kinetic chain checkpoints (ankles, knees, lumbo-pelvic-hip complex, shoulders, head)

K61. Physical and medical signs, symptoms, or contraindications that require training modifications

DOMAIN 5: CLIENT RELATIONS AND BEHAVIORAL COACHING

TASKS

- 1.** Establish and maintain professional client-certified personal trainer (CPT) relationships using rapport building and communication techniques.
- 2.** Assess, and re-assess, short- and long-term goals, based on client's initial goals, discussion of reasonable expectations, and relevant outcomes of assessments in order to develop goals.
- 3.** Facilitate lifestyle and behavioral change through education, monitoring, and communication strategies.



DOMAIN 5 CONTINUED...

KNOWLEDGE OF:

- K62.** Communication components (such as verbal and non-verbal communication, active listening, rapport building)
- K63.** SMART goal development
- K64.** Goal expectation management (client's desires vs. needs based on assessment)
- K65.** Behavior change strategies (such as food journal, activity tracking, stress and time management)
- K66.** Psychological responses to exercise
- K67.** Barriers to behavior change
- K68.** Client expectation management

DOMAIN 6: PROFESSIONAL DEVELOPMENT & RESPONSIBILITY

TASKS

- 1.** Adhere to applicable professional standards, guidelines, regulations, and codes of conduct
- 2.** Develop and grow business (such as building client base, marketing, networking, financial planning)
- 3.** Act within CPT scope of practice, respecting occupational limitations
- 4.** Follow proper procedures in an emergency situations and report equipment malfunction, hazards, damages, and dangers)

KNOWLEDGE OF:

- K69.** Professional and ethical guidelines and standards and codes of conduct (such as record keeping, client medical clearance, physical appearance and attire, punctuality)
- K70.** Business fundamentals (such as forecasting techniques, projections)
- K71.** Marketing concepts and techniques
- K72.** Sales concepts and techniques (such as lead generation, presenting, pre-handling and overcoming objections)
- K73.** Equipment maintenance and safety considerations
- K74.** Professional limitations of personal trainer (such as psychological counseling, meal planning, diagnosing injury)



DOMAIN 6 CONTINUED...

K75. Requirements for maintaining professional credentials

K76. Resources regarding rules and regulations applicable to CPTs

K77. Credible resources of information regarding health and fitness education (such as scholarly articles, peer-reviews, conferences, workshops)

K78. Opportunities for professional growth through education and/or other professional experiences