

American College of Sports Medicine (www.acsm.org)

Certified Personal Trainer

As a personal trainer you have the ability and opportunity to make a real difference in people's lives when it comes to their health and fitness. What many people are unable to do on their own, they can accomplish with the motivation and support of a personal trainer.

ACSM Certified Personal Trainers are qualified to develop and implement exercise programs for apparently healthy individuals or those who have medical clearance to exercise.

ACSM Certified Personal TrainerSM Scope of Practice

The ACSM Certified Personal TrainerSM is a fitness professional who develops and implements an individualized approach to exercise leadership in healthy populations and/or those individuals with medical clearance to exercise.

Using a variety of teaching techniques, the ACSM Certified Personal TrainerSM is proficient in:

- Leading and demonstrating safe and effective methods of exercise by applying the fundamental principles of exercise science.
- Writing appropriate exercise recommendations.
- Motivating individuals to begin and to continue with their healthy behaviors.

Minimum Requirements for becoming an ACSM Certified Personal TrainerSM

To become an ACSM Certified Personal TrainerSM you must meet all of the following minimum requirements:

- 18 years of age or older
- High school diploma or equivalent
- Current Adult CPR certification with a practical skills component (such as the American Heart Association or American Red Cross)

ACSM Certified Personal Trainer Knowledge, Skills, and Abilities (KSAs)

General Population/Core: Exercise Physiology and Related Exercise Science

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| 1.1.1 | Knowledge of the basic structures of bone, skeletal muscle, and connective tissue. |
| 1.1.2 | Knowledge of the basic anatomy of the cardiovascular system and respiratory system. |
| 1.1.3 | Knowledge of the definition of the following terms: inferior, superior, medial, lateral, supination, pronation, flexion, extension, adduction, abduction, hyperextension, rotation, circumduction, agonist, antagonist, and stabilizer. |
| 1.1.4 | Knowledge of the plane in which each muscle action occurs. |
| 1.1.5 | Knowledge of the interrelationships among center of gravity, base of support, balance, stability, and proper spinal alignment. |
| 1.1.6 | Knowledge of the following curvatures of the spine: lordosis, scoliosis, and kyphosis. |
| 1.1.8 | Knowledge of the biomechanical principles for the performance of common physical activities (e.g., walking, running, swimming, cycling, resistance training, yoga, Pilates, functional training). |
| 1.1.9 | Ability to distinguish between aerobic and anaerobic metabolism. |
| 1.1.10 | Knowledge to describe the normal acute responses to cardiovascular exercise. |
| 1.1.11 | Knowledge to describe the normal acute responses to resistance training. |

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| 1.1.12 | Knowledge of the normal chronic physiologic adaptations associated with cardiovascular exercise. |
| 1.1.13 | Knowledge of the normal chronic physiologic adaptations associated with resistance training. |
| 1.1.14 | Knowledge of the physiologic principles related to warm-up and cool-down. |
| 1.1.15 | Knowledge of the common theories of muscle fatigue and delayed onset muscle soreness (DOMS). |
| 1.1.16 | Knowledge of the physiologic adaptations that occur at rest and during submaximal and maximal exercise following chronic aerobic and anaerobic exercise training. |
| 1.1.17 | Knowledge of the physiologic principles involved in promoting gains in muscular strength and endurance. |
| 1.1.18 | Knowledge of blood pressure responses associated with acute exercise, including changes in body position. |
| 1.1.19 | Knowledge of how the principle of specificity relates to the components of fitness. |
| 1.1.20 | Knowledge of the concept of detraining or reversibility of conditioning and its implications in fitness programs. |
| 1.1.21 | Knowledge of the physical and psychological signs of overtraining and to provide recommendations for these problems. |
| 1.1.22 | Knowledge of muscle actions, such as isotonic, isometric (static), isokinetic, concentric, eccentric. |
| 1.1.23 | Ability to identify the major muscles. Major muscles include, but are not limited to, the following: trapezius, pectoralis major, latissimus dorsi, biceps, triceps, |

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| | rectus abdominis, internal and external obliques, erector spinae, gluteus maximus, quadriceps, hamstrings, adductors, abductors, and gastrocnemius. |
| 1.1.24 | Ability to identify the major bones. Major bones include, but are not limited to, the clavicle, scapula, sternum, humerus, carpals, ulna, radius, femur, fibula, tibia, and tarsals. |
| 1.1.25 | Ability to identify the various types of joints of the body (e.g., hinge, ball, and socket). |
| 1.1.26 | Knowledge of the primary action and joint range of motion for each major muscle group. |
| 1.1.27 | Ability to locate the anatomic landmarks for palpation of peripheral pulses. |
| 1.1.28 | Knowledge of the unique physiologic considerations of children, older adults, persons with diabetes (type 2), pregnant women, and persons who are overweight and/or obese. |
| 1.1.29 | Knowledge of the following related terms: hypertrophy, atrophy, and hyperplasia. |

General Population/Core: Health Appraisal, Fitness, and Clinical Exercise Testing

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| 1.3.1 | Knowledge of and ability to discuss the physiologic basis of the major components of physical fitness: flexibility, cardiovascular fitness, muscular strength, muscular endurance, and body composition. |
| 1.3.2 | Knowledge of the components of a health/medical history. |
| 1.3.3 | Knowledge of the value of a medical clearance before exercise participation. |
| 1.3.4 | Knowledge of the categories of participants who should receive medical clearance before administration of an exercise test or participation in an exercise program. |
| 1.3.5 | Knowledge of relative and absolute contraindications to exercise testing or participation. |
| 1.3.6 | Knowledge of the limitations of informed consent and medical clearance. |
| 1.3.7 | Knowledge of the advantages/disadvantages and limitations of the various body composition techniques including, but not limited to, skinfolds, plethysmography (BOD POD [®]), bioelectrical impedance, infrared, dual-energy x-ray absorptiometry (DEXA), and circumference measurements. |
| 1.3.8 | Skill in accurately measuring heart rate and obtaining rating of perceived exertion (RPE) at rest and during exercise according to established guidelines. |
| 1.3.9 | Ability to locate body sites for circumference (girth) measurements. |
| 1.3.10 | Ability to obtain a basic health history and risk appraisal and to stratify risk in accordance with ACSM Guidelines. |
| 1.3.11 | Ability to explain and obtain informed consent. |

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| 1.3.13 | Knowledge of preactivity fitness testing, including assessments of cardiovascular fitness, muscular strength, muscular endurance, flexibility, and body composition. |
| 1.3.14 | Knowledge of criteria for terminating a fitness evaluation and proper procedures to be followed after discontinuing such a test. |
| 1.3.15 | Knowledge of and ability to prepare for the initial client consultation. |
| 1.3.16 | Ability to recognize postural abnormalities that may affect exercise performance. |
| 1.3.17 | Skill in assessing body alignment. |

General Population/Core: Exercise Prescription and Programming

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| 1.7.1 | Knowledge of the benefits and risks associated with exercise training and recommendations for exercise programming in children and adolescents. |
| 1.7.2 | Knowledge of the benefits and precautions associated with resistance and endurance training in older adults and recommendations for exercise programming. |
| 1.7.3 | Knowledge of specific leadership techniques appropriate for working with participants of all ages. |
| 1.7.4 | Knowledge of how to modify cardiovascular and resistance exercises based on age and physical condition. |
| 1.7.5 | Knowledge of and ability to describe the unique adaptations to exercise training with regard to strength, functional capacity, and motor skills. |

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| 1.7.6 | Knowledge of common orthopedic and cardiovascular considerations for older participants and the ability to describe modifications in exercise prescription that are indicated. |
| 1.7.7 | Knowledge of selecting appropriate training modalities according to the age and functional capacity of the individual. |
| 1.7.8 | Knowledge of the recommended intensity, duration, frequency, and type of physical activity necessary for development of cardiorespiratory fitness in an apparently healthy population. |
| 1.7.9 | Knowledge to describe and the ability to safely demonstrate exercises designed to enhance muscular strength and/or endurance. |
| 1.7.10 | Knowledge of the principles of overload, specificity, and progression and how they relate to exercise programming. |
| 1.7.11 | Knowledge of how to conduct and the ability to teach/demonstrate exercises during a comprehensive session that would include pre-exercise evaluation, warm-up, aerobic exercise, cool-down, muscular fitness training, and flexibility exercise. |
| 1.7.12 | Knowledge of special precautions and modifications of exercise programming for participation at altitude, different ambient temperatures, humidity, and environmental pollution. |
| 1.7.13 | Knowledge of the importance and ability to record exercise sessions and performing periodic evaluations to assess changes in fitness status. |
| 1.7.14 | Knowledge of the advantages and disadvantages of implementation of interval, continuous, and circuit training programs. |
| 1.7.15 | Knowledge of the concept of activities of daily living (ADLs) and its importance in the overall health of the individual. |

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| 1.7.16 | Knowledge of progressive adaptation in resistance training and its implications on program design and periodization. |
| 1.7.17 | Knowledge of interpersonal limitations when working with clients one on one. |
| 1.7.19 | Skill to teach and demonstrate appropriate modifications in specific exercises and make recommendations for exercise programming for the following groups: children, older adults, persons with diabetes (type 2), pregnant women, persons with arthritis, persons who are overweight and/or obese, and persons with chronic back pain. |
| 1.7.20 | Skill to teach and demonstrate appropriate exercises for improving range of motion of all major joints. |
| 1.7.21 | Skill in the use of various methods for establishing and monitoring levels of exercise intensity, including heart rate, RPE, and metabolic equivalents (METs). |
| 1.7.22 | Knowledge of and ability to apply methods used to monitor exercise intensity, including heart rate and rating of perceived exertion. |
| 1.7.24 | Ability to differentiate between the amount of physical activity required for health benefits and the amount of exercise required for fitness development. |
| 1.7.25 | Ability to determine training heart rates using two methods: percent of age-predicted maximum heart rate and heart rate reserve (Karvonen). |
| 1.7.26 | Ability to identify proper and improper technique in the use of resistive equipment, such as stability balls, weights, bands, resistance bars, and water exercise equipment. |
| 1.7.27 | Ability to identify proper and improper technique in the use of cardiovascular conditioning equipment (e.g., stair-climbers, stationary cycles, treadmills, and elliptical trainers). |
| 1.7.28 | Ability to teach a progression of exercises for all major muscle groups to |

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| | improve muscular fitness. |
| 1.7.29 | Ability to modify exercises based on age and physical condition. |
| 1.7.30 | Ability to explain and implement exercise prescription guidelines for apparently healthy clients or those who have medical clearance to exercise. |
| 1.7.31 | Ability to adapt frequency, intensity, duration, mode, progression, level of supervision, and monitoring techniques in exercise programs for apparently healthy clients or those who have medical clearance to exercise. |
| 1.7.34 | Ability to evaluate, prescribe, and demonstrate appropriate flexibility exercises for all major muscle groups. |
| 1.7.35 | Ability to design training programs using interval, continuous, and circuit training programs. |
| 1.7.36 | Ability to describe the advantages and disadvantages of various types of commercial exercise equipment in developing cardiorespiratory and muscular fitness. |
| 1.7.37 | Ability to safely demonstrate a wide variety of conditioning exercises involving equipment, such as stability balls, BOSU [®] balls, elastic bands, medicine balls, and foam rollers. |
| 1.7.38 | Ability to safely demonstrate a wide range of resistance-training modalities, including variable resistance devices, dynamic constant external resistance devices, static resistance devices, and other resistance devices. |
| 1.7.39 | Ability to safely demonstrate a wide variety of conditioning exercises that promote improvements in agility, balance, coordination, reaction time, speed, and power. |
| 1.7.40 | Knowledge of training principles, such as progressive overload, variation, and specificity. |

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| 1.7.41 | Knowledge of the Valsalva maneuver and the associated risks. |
| 1.7.42 | Knowledge of the appropriate repetitions, sets, volume, repetition maximum, and rest periods necessary for desired outcome goals. |
| 1.7.43 | Ability to safely demonstrate a wide variety of plyometric exercises and be able to determine when such exercises would be inappropriate to perform. |
| 1.7.44 | Ability to apply training principles so as to distinguish goals between an athlete and an individual exercising for general health. |
| 1.7.45 | Knowledge of periodization in exercise in aerobic and resistance-training program design. |

General Population/Core: Nutrition and Weight Management

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| 1.8.1 | Knowledge of the role of carbohydrates, fats, and proteins as fuels. |
| 1.8.2 | Knowledge to define the following terms: obesity, overweight, percent fat, body mass index (BMI), lean body mass, anorexia nervosa, bulimia nervosa, and body fat distribution. |
| 1.8.3 | Knowledge of the relationship between body composition and health. |
| 1.8.4 | Knowledge of the effects of diet plus exercise, diet alone, and exercise alone as methods for modifying body composition. |
| 1.8.5 | Knowledge of the importance of an adequate daily energy intake for healthy weight management. |
| 1.8.6 | Knowledge of the importance of maintaining normal hydration before, during, and after exercise. |

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| 1.8.7 | Knowledge and understanding of the current Dietary Guidelines for Americans, including the USDA Food Pyramid. |
| 1.8.8 | Knowledge of the female athlete triad. |
| 1.8.9 | Knowledge of the myths and consequences associated with inappropriate weight loss methods (e.g., saunas, vibrating belts, body wraps, electric simulators, sweat suits, fad diets). |
| 1.8.10 | Knowledge of the number of kilocalories in one gram of carbohydrate, fat, protein, and alcohol. |
| 1.8.11 | Knowledge of the number of kilocalories equivalent to losing one pound of body fat. |
| 1.8.12 | Knowledge of the guidelines for caloric intake for an individual desiring to lose or gain weight. |
| 1.8.13 | Knowledge of common ergogenic aids, the purported mechanism of action, and potential risks and/or benefits (e.g., anabolic steroids, caffeine, amino acids, vitamins, minerals, creatine monohydrate, adrostenedione, DHEA). |
| 1.8.14 | Ability to describe the health implications of variation in body-fat distribution patterns and the significance of the waist-to-hip ratio. |
| 1.8.15 | Ability to describe the health implications of commonly used herbs (e.g., echinacea, St. John's wort, ginseng). |

General Population/Core: Human Behavior and Counseling

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| 1.9.1 | Knowledge of behavioral strategies to enhance exercise and health behavior change (e.g., reinforcement, goal setting, social support). |
| 1.9.2 | Knowledge of the stages of motivational readiness and effective strategies that support and facilitate behavioral change. |
| 1.9.3 | Knowledge of the three stages of learning: cognitive, associative, autonomous. |
| 1.9.4 | Knowledge of specific techniques to enhance motivation (e.g., posters, recognition, bulletin boards, games, competitions). Define extrinsic and intrinsic reinforcement and give examples of each. |
| 1.9.5 | Knowledge of the different types of learners (auditory, visual, kinesthetic) and how to apply teaching and training techniques to optimize a client's training session. |
| 1.9.6 | Knowledge of the types of feedback and ability to use communication skills to optimize a client's training session. |
| 1.9.7 | Knowledge of common obstacles that interfere with adherence to an exercise program and strategies to overcome these obstacles. |
| 1.9.8 | Ability to identify, clarify, and set behavioral and realistic goals with the client (i.e., SMART goals). |
| 1.9.9 | Knowledge of basic communication and coaching techniques that foster and facilitate behavioral changes. |
| 1.9.10 | Knowledge of various learning theories (e.g., motivation theory, attribution theory, transfer theory, retention theory, and goal theory). |
| 1.9.11 | Knowledge of attributes or characteristics necessary for effective teaching. |

General Population/Core: Safety, Injury Prevention, and Emergency Procedures

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| 1.10.1 | Knowledge of and skill in obtaining basic life support, automated external defibrillators (AEDs), and cardiopulmonary resuscitation certification. |
| 1.10.2 | Knowledge of appropriate emergency procedures (i.e., telephone procedures, written emergency procedures, personnel responsibilities) in a health and fitness setting. |
| 1.10.3 | Knowledge of basic first-aid procedures for exercise-related injuries, such as bleeding, strains/sprains, fractures, and exercise intolerance (dizziness, syncope, heat injury). |
| 1.10.4 | Knowledge of basic precautions taken in an exercise setting to ensure participant safety. |
| 1.10.5 | Knowledge of the physical and physiologic signs and symptoms of overtraining. |
| 1.10.6 | Knowledge of the effects of temperature, humidity, altitude, and pollution on the physiologic response to exercise. |
| 1.10.7 | Knowledge of the following terms: shin splints, sprain, strain, tennis elbow, bursitis, stress fracture, tendonitis, patello-femoral pain syndrome, low back pain, plantar fasciitis, and rotator cuff tendonitis. |
| 1.10.8 | Knowledge of hypothetical concerns and potential risks that may be associated with the use of exercises such as straight-leg sit-ups, double leg raises, full squats, hurdler's stretch, yoga plow, forceful back hyperextension, and standing bent-over toe touch. |
| 1.10.10 | Knowledge of the Certified Personal Trainer's SM responsibilities, limitations, and the legal implications of carrying out emergency procedures. |
| 1.10.11 | Knowledge of potential musculoskeletal injuries (e.g., contusions, sprains, |

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| | strains, fractures), cardiovascular/pulmonary complications (e.g., tachycardia, bradycardia, hypotension/hypertension, tachypnea), and metabolic abnormalities (e.g., fainting/syncope, hypoglycemia/hyperglycemia, hypothermia/hyperthermia). |
| 1.10.12 | Knowledge of the initial management and first-aid techniques associated with open wounds, musculoskeletal injuries, cardiovascular/pulmonary complications, and metabolic disorders. |
| 1.10.13 | Knowledge of the components of an equipment service plan/agreement and how it may be used to evaluate the condition of exercise equipment to reduce the potential risk of injury. |
| 1.10.14 | Knowledge of the legal implications of documented safety procedures, the use of incident documents, and ongoing safety training. |
| 1.10.15 | Skill in demonstrating appropriate emergency procedures during exercise testing and/or training. |
| 1.10.16 | Ability to identify the components that contribute to the maintenance of a safe exercise environment. |
| 1.10.17 | Ability to assist or spot a client in a safe and effective manner during resistance exercise. |

***General Population/Core: Program Administration, Quality Assurance,
and Outcome Assessment***

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| 1.11.1 | Knowledge of the Certified Personal Trainer's SM scope of practice and role in the administration/program management within a health/fitness facility. |
| 1.11.2 | Knowledge of and the ability to use the documentation required when a client shows abnormal signs or symptoms during an exercise session and should be referred to a physician. |
| 1.11.3 | Knowledge of professional liability and most common types of negligence seen in training environments. |
| 1.11.4 | Understanding of the practical and legal ramifications of the employee versus independent contractor classifications as they relate to the Certified Personal Trainer SM . |
| 1.11.5 | Knowledge of appropriate professional responsibilities, practice standards, and ethics in relationships dealing with clients, employers, and other allied health/medical/fitness professionals. |
| 1.11.6 | Knowledge of the types of exercise programs available in the community and how these programs are appropriate for various populations. |
| 1.11.7 | Knowledge of and ability to implement effective, professional business practices and ethical promotion of personal training services. |
| 1.11.8 | Ability to develop a basic business plan, which includes establishing a budget, developing management policies, marketing, sales, and pricing. |

General Population/Core: Clinical and Medical Considerations

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| 1.12.1 | Knowledge of cardiovascular, respiratory, metabolic, and musculoskeletal risk factors that may require further evaluation by medical or allied health professionals before participation in physical activity. |
| 1.12.2 | Knowledge of risk factors that may be favorably modified by physical activity habits. |
| 1.12.3 | Knowledge of the risk-factor concept of coronary artery disease (CAD) and the influence of heredity and lifestyle on the development of CAD. |
| 1.12.4 | Knowledge of how lifestyle factors—including nutrition, physical activity, and heredity—influence blood lipid and lipoprotein (i.e., cholesterol: high-density lipoprotein and low-density lipoprotein) profiles. |
| 1.12.5 | Knowledge of cardiovascular risk factors or conditions that may require consultation with medical personnel before testing or training, including inappropriate changes of resting or exercise heart rate and blood pressure; new onset discomfort in chest, neck, shoulder, or arm; changes in the pattern of discomfort during rest or exercise; fainting or dizzy spells; and claudication. |
| 1.12.6 | Knowledge of respiratory risk factors or conditions that may require consultation with medical personnel before testing or training, including asthma, exercise-induced bronchospasm, extreme breathlessness at rest or during exercise, bronchitis, and emphysema. |
| 1.12.7 | Knowledge of metabolic risk factors or conditions that may require consultation with medical personnel before testing or training, including body weight more than 20% above optimal, BMI >30, thyroid disease, diabetes or glucose intolerance, and hypoglycemia. |
| 1.12.8 | Knowledge of musculoskeletal risk factors or conditions that may require consultation with medical personnel before testing or training, including acute or chronic back pain, arthritis, osteoporosis, and joint inflammation. |

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Knowledge of common drugs from each of the following classes of medications and ability to describe their effects on exercise: antianginals, anticoagulants, antihypertensives, antiarrhythmics, bronchodilators, hypoglycemics, psychotropics, vasodilators, and over-the-counter medications such as pseudoephedrine.

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Knowledge of the effects of the following substances on exercise: antihistamines, tranquilizers, alcohol, diet pills, cold tablets, caffeine, and nicotine.

Code of Ethics for ACSM Certified and Registered Professionals

Purpose

This Code of Ethics is intended to aid all certified and registered American College of Sports Medicine Credentialed Professionals (ACSMCPs) to establish and maintain a high level of ethical conduct, as defined by standards by which ACSMCPs may determine the appropriateness of their conduct. Any existing professional, licensure, or certification affiliations that ACSMCPs have with governmental, local, state, or national agencies or organizations will take precedence relative to any disciplinary matters that pertain to practice or professional conduct.

This Code applies to all ACSMCPs, regardless of ACSM membership status (to include members and nonmembers). Any cases in violation of this Code will be referred to the ACSM Committee on Certification and Registry Boards (CCRB).

Principles and Standards

Responsibility to the Public

- ACSMCPs shall be dedicated to providing competent and legally permissible services within the scope of the KSAs of their respective credential. These services shall be provided with integrity, competence, diligence, and compassion.
- ACSMCPs provide exercise information in a manner that is consistent with evidence-based science and medicine.
- ACSMCPs respect the rights of clients, colleagues, and healthcare professionals, and shall safeguard client confidences within the boundaries of the law.
- Information relating to the ACSMCP–client relationship is confidential and may not be communicated to a third party not involved in that client's care without the prior written consent of the client or as required by law.
- ACSMCPs are truthful about their qualifications and the limitations of their expertise and provide services consistent with their competencies.

Responsibility to the Profession

- ACSMCPs maintain high professional standards. As such, an ACSMCP should never represent himself or herself, either directly or indirectly, as anything other than an ACSMCP unless he or she holds other license/certification that allows him or her to do so.
- ACSMCPs practice within the scope of their KSAs. ACSMCPs will not provide services that are limited by state law to provision by another healthcare professional only.

- An ACSMCP must remain in good standing relative to governmental requirements as a condition of continued credentialing.
- ACSMCPs take credit, including authorship, only for work they have actually performed and give credit to the contributions of others as warranted.
- Consistent with the requirements of their certification or registration, ACSMCPs must complete approved, additional educational course work aimed at maintaining and advancing their KSAs.