Study Assistance Program
Group Fitness Instructor Key Concepts

APPLIED EXERCISE SCIENCE KNOWLEDGE
Note: This content is intertwined through all four domains of the Group Fitness Instructor Certification Exam.

Exercise Physiology

- The five major components of physical fitness: muscular strength, muscular endurance, cardiorespiratory endurance, flexibility, and body composition. (Chap. 1)
- ATP production from the aerobic and anaerobic energy systems available to working muscles during exercise. Chap. 1)
- Fast twitch and slow twitch muscles fibers and their respective roles during low intensity endurance activities and short duration high intensity activities. (Chap. 1)
- The basic anatomy of a neuron and the differences between sensory and motor neurons. (Chap. 1)
- The components of a muscle and the sliding filament theory, and how they produce concentric, eccentric, and isometric contractions. (Chap. 1)
- The principle of specificity as it applies to muscular strength and muscular endurance.
- Flexibility and different methods of stretching (e.g., static, ballistic (or dynamic), proprioceptive neuromuscular facilitation). (Chap. 1)
- Cardiorespiratory endurance and the processes involved in providing adequate blood and nutrients to the tissue. (Chap. 1)
- Acute responses to aerobic exercise. (Chap. 1)
- The role of exercise frequency, intensity, time (duration), and type (mode) (F.I.T.T.) in developing cardiorespiratory endurance and muscular strength and endurance. (Chap. 1)
- Long-term adaptations to aerobic exercise for healthy participants and participants with chronic disease. (Chap. 1)
- The major hormonal responses to exercise. (Chap. 1)
- Physical responses to and guidelines for exercising in the heat, cold and at higher altitudes. (Chap. 1)

Anatomy

- Common anatomical, directional, and regional terms (Table 2.1) as they apply to the body. (Chap. 2)
- Components, responsibility, and action of the cardiovascular system. (Chap. 2)
- Components, responsibility, and action of the respiratory system. (Chap. 2)
- Components and role of the central nervous system (CNS) and the peripheral nervous system (PNS). (Chap. 2)
• Function and classification of the axial and appendicular skeleton bones. (Chap. 2)
• Structural and functional classification of the major joints and the types of movements performed at each joint in relationship to the appropriate plane of motion. (Chap. 2)
• Three types of muscle tissue: skeletal, cardiac, and visceral (smooth). (Chap. 2)
• The three actions produced when muscles develop tension: concentric, eccentric, and isometric. (Chap. 2)
• Different muscle roles during movements (agonist, antagonist, synergist). (Chap. 2)
• Muscles that act at the following joints: ankle, knee, hip, trunk, wrist, elbow, shoulder, and scapulothoracic articulation. (Chap. 2)

Applied Kinesiology

• Application of the law of inertia, the law of acceleration, the law of reaction to human movement. (Chap. 3)
• Muscles and movements of the anterior hip, posterior hip, lateral hip, medial hip. (Chap. 3)
• Muscles and movements of the anterior knee, posterior knee, anterior leg, lateral leg, and medial leg. (Chap. 3)
• Neutral alignment and common types of misaligned posture: kyphosis-lordosis posture, flat-back posture, sway-back posture, and scoliosis. (Chap. 3)
• Causes of common types of misaligned posture and areas that should be trained (strengthening and flexibility) to help improve posture. (Chap. 3)
• Muscular balance and the implications of imbalances in strength and flexibility.
• The "core" of the body and components of core stability. (Chap. 3)
• Muscles and movements of the anterior shoulder, posterior shoulder, and glenohumeral joint. (Chap. 3)

Nutrition

• The 2005 USDA Dietary Guidelines and Food Guide Pyramid. (Chap. 4)
• Nutrients that have energy content (carbohydrates, fats, protein, and alcohol). (Chap. 4)
• Carbohydrates: role in the body, sources of, and the glycemic index. (Chap. 4)
• Protein: role in the body, sources of, and amino acids. (Chap. 4)
• Fat: role in the body, source of, and the form it takes. (Chap. 4)
• The two classifications of vitamins (water-soluble and fat-soluble) and the importance of following the Recommended Dietary Allowance (RDA). (Chap. 4)
• Guidelines for hydration during exercise and throughout the day. (Chap. 4)
• Fiber: role in the body, sources of, and the recommended DRIs. (Chap. 4)
• The health benefits of phytochemicals. (Chap. 4)
• The relationship between diet and disease (e.g., cardiovascular disease, obesity, hypertension, diabetes, cancer, osteoporosis, anemia). (Chap. 4)
• Importance of adequate Iron intake and food choices that ensure it. (Chap. 4)
• The effects of caffeine in the body and possibly side effects. (Chap. 4)
• Nutrition recommendations for athletic performance. (Chap. 4)
• Three types of eating disorders (Anorexia nervosa, bulimia nervosa, and binge
  eating disorder). (Chap. 4)
• Energy recommendations for pregnant and nursing women. (Chap. 4)

DOMAIN I:  EXERCISE PROGRAMMING AND CLASS DESIGN

Task 1 – Construct a group fitness class of basic exercise components using
appropriate movements, music, and/or equipment to promote the health and
wellness of class participants.

• The 2006 ACSM Exercise Programming Guidelines for Healthy Adults. (Chap. 6)
• Common principles in pre-class preparation for any group exercise class. (Chap. 6)
• Common principles behind the warm-up for any group exercise class. (Chap. 6)
• Common principles behind the cardiorespiratory segment of most group exercise
classes. (Chap. 6)
• Common principles in the muscular strength and endurance segment of most
group exercise classes. (Chap. 6)
• Common principles in the flexibility segment of most group exercise classes.
  (Chap. 6)
• General teaching principles covered in chapter 2 of the DVD: safe environment,
injury prevention, programming, transitions, mirroring class, and cueing.
• The description, music considerations, safety, and tips for traditional aerobics,
  step aerobics, kickboxing fitness, and group indoor cycling. (DVD)
• The components of a lesson plan: class objectives, class activities and time
  allocations, necessary equipment, and patterns of class organization. (Chap. 7)
• Ideal facility guidelines and equipment needs. (Chap. 7)
• The necessary skills to determine which exercises and movement patterns are
effective and safe. (Chap. 7)
• Fundamental elements of music in conjunction with movement patterns. (Chap. 7)
• Guidelines when selecting choreography and the two basic choreography
  methods: freestyle choreography and structured choreography. (Chap. 7)
• Guidelines for using movement, verbal, and visual cues. (Chap. 7)
• The description, music considerations, safety, and tips for Aquatic Fitness, Yoga,
Pilates Mat Training, Stability Ball Training, and Group Strength Training.
  (Appendix E)

Task 2 – Accommodate varied fitness levels of participants by applying general
fitness principles (e.g., varying frequency, intensity, duration, mode, sets, reps) to
provide safe and effective classes.
• The five major components of physical fitness: muscular strength, muscular endurance, cardiorespiratory endurance, flexibility, and body composition. (Chap. 1)
• ATP production from the aerobic and anaerobic energy systems available to working muscles during exercise. (Chap. 1)
• The principle of specificity as it applies to muscular strength and muscular endurance. (Chap. 1)
• Flexibility and different methods of stretching (e.g., static, ballistic (or dynamic), proprioceptive neuromuscular facilitation). (Chap. 1)
• Cardiorespiratory endurance and the processes involved in providing adequate blood and nutrients to the tissue. (Chap. 1)
• Acute responses to aerobic exercise. (Chap. 1)
• The role of exercise frequency, intensity, time (duration), and type (mode) (F.I.T.T.) in developing cardiorespiratory endurance and muscular strength and endurance. (Chap. 1)
• The 2006 ACSM Exercise Programming Guidelines for Healthy Adults. (Chap. 6)
• Fitness Assessment tests commonly used in a one-on-one setting. (Chap. 6)
• Field Tests more commonly used to assess body fat distribution (Waist-to-Hip Circumference) and health risk as related to obesity (Body Mass Index) with groups of individuals. (Chap. 6)
• Field Tests more commonly used to assess cardiorespiratory fitness (YMCA Submaximal Step Test) with groups of individuals. (Chap. 6)
• Field Tests more commonly used to assess muscular strength and endurance (Push-up Test and Half Sit-up or Partial Curl-up test) with groups of individuals. (Chap. 6)
• Field Tests more commonly used to assess flexibility (Sit-and-Reach Test and Shoulder Flexibility Test) with groups of individuals. (Chap. 6)
• Modifying class segments and exercises to meet the needs of different participants. (Chap. 6)
• General teaching principles covered in chapter 2 of the DVD: safe environment, injury prevention, programming, transitions, mirroring class, and cueing.
• The description, music considerations, safety, and tips for traditional aerobics, step aerobics, kickboxing fitness, and group indoor cycling. (DVD)
• The proper class sequences for different audiences, design an effective class, and teach the correct exercises. (Chap. 7)
• The components of a lesson plan: class objectives, class activities and time allocations, necessary equipment, and patterns of class organization. (Chap. 7)
• Ideal facility guidelines and equipment needs. (Chap. 7)
• The necessary skills to determine which exercises and movement patterns are effective and safe. (Chap. 7)
• Fundamental elements of music in conjunction with movement patterns. (Chap. 7)
• The instructor's role in analyzing the movements and skills of the participants and the use of alignment cues to protect them from injury. (Chap. 7)
• The description, music considerations, safety, and tips for Aquatic Fitness, Yoga, Pilates Mat Training, Stability Ball Training, and Group Strength Training. (Appendix E)
Task 3 – Incorporate progression in class design consistent with established standards and guidelines with variation in exercise selection, equipment, music and approach to achieve fitness goals, reduce potential injury and attrition, and alleviate boredom.

- The proper class sequences for different audiences, design an effective class, and teach the correct exercises. (Chap. 7)
- The three stages of learning motor skills and the instructor guidelines to facilitate moving participants from the beginning level to the advanced level. (Chap. 7)
- The importance of setting program goals. (Chap. 7)
- The components of a lesson plan: class objectives, class activities and time allocations, necessary equipment, and patterns of class organization. (Chap. 7)
- Ideal facility guidelines and equipment needs. (Chap. 7)
- The necessary skills to determine which exercises and movement patterns are effective and safe. (Chap. 7)
- The instructor's role in analyzing the movements and skills of the participants and the use of alignment cues to protect them from injury. (Chap. 7)
- The description, music considerations, safety, and tips for Aquatic Fitness, Yoga, Pilates Mat Training, Stability Ball Training, and Group Strength Training. (Appendix E)
- Major factors influencing physical activity adherence: personal factors, program factors, and environmental factors. (Chap. 8)
- Strategies used by group fitness instructors to encourage adherence. (Chap. 8)
- Realistic expectations and setting SMART goals. (Chap. 8)
- Strategies to make the class interesting and fun (e.g. varying the routine and using surveys). (Chap. 8)
- Exercise prompts and cues participants can use to promote adherence to their exercise routine. (Chap. 8)
- Methods of social support for exercise (e.g. buddy systems, telephone or email messages). (Chap. 8)
- Techniques used by group fitness instructors to create group cohesion. (Chap. 8)
- Ways to incorporate exercise into participant programs during breaks due to vacations, holidays, work pressure, etc. (Chap. 8)

Task 4 – Accommodate the needs of special populations by recognizing their limitations to provide safe and effective classes.

- The three step process of using the 2006 American College of Sports Medicine Coronary Artery Disease Risk Factor Thresholds to determine a participant’s level of risk and appropriate exercise intensity. (Chap. 5)
- Key recommendations from the American Heart Association regarding screening athletes. (Chap. 5)
- Modifying class segments and exercises to meet the needs of different participants. (Chap. 6)
- Obesity and diabetes (select metabolic disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
- Asthma, bronchitis, and emphysema (select respiratory and pulmonary disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
- Arthritis, fibromyalgia, osteoporosis, and low back pain (select joint and bone disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
- Multiple sclerosis and exercise guidelines for persons with this disease. (Chap. 9)
- Coronary heart disease and hypertension (select cardiac diseases) and exercise guidelines for persons with these diseases. (Chap. 9)
- Exercise guidelines for children and older adults. (Chap. 9)
- Benefits of exercise during pregnancy (e.g. maintaining or increasing cardiovascular fitness, muscular strength, and flexibility); guidelines, and current research findings. (Chap. 10)
- Current research on the benefits of prenatal exercise as they relate to labor and delivery. (Chap. 10)
- Current research on the benefits of prenatal exercise as they relate to recovery.
- Risk factors and contraindications for exercise during pregnancy (Table 10.1-10.5). (Chap. 10)
- Physiological adaptations of the cardiovascular system, respiratory system, and musculoskeletal system, during pregnancy. (Chap. 10)
- Current research on the effects of exercise associated with the fetus (e.g. thermoregulation, circulatory demands, carbohydrate utilization, and fetal hyperthermia). (Chap. 10)
- Common dysfunction and irritations including backache, pelvic floor weakness, diastasis recti, ligament strain, pubic pain, sacroiliac joint dysfunction, sciatica, nerve compression syndromes, over use syndromes, and muscle cramps. (Chap. 10)
- Specific techniques and considerations for conditioning exercises for the neck, shoulder girdle, shoulder and elbow joints, wrist joint, low back, abdominal wall, pelvic floor, hip flexors, hip extensors, hip abduction, hip adduction, knee extensors, knee flexors, and the ankle joint. (Chap. 10)
- General program modification through pregnancy and specific considerations for aquatic exercise, indoor cycling, strength training, and mind body classes. (Chap. 10)
- Postnatal guidelines for exercise and common musculoskeletal conditions. (Chap. 10)
- Special considerations for postnatal exercise following both natural and caesarean deliveries. (Chap. 10)
- Current research regarding breastfeeding and exercise. (Chap. 10)

**Task 5 – Adjust class design for various environmental conditions (e.g., cold, heat, humidity, altitude, acoustics, pollution) to ensure a safe and comfortable exercise setting for all participants.**

- Physical responses to and guidelines for exercising in the heat, cold and at higher altitudes. (Chap. 1)
• Using the foundation of group exercise class segments and making appropriate modifications due to altered class dynamics (e.g., extreme heat (Ch.1), extreme cold (Ch.1), new participants etc.) (Chap. 6).

DOMAIN II: GROUP INSTRUCTIONAL METHODS

Task 1 – Choose an appropriate and effective teaching method to accommodate various learning styles and cultural differences by analyzing the skills, interests, lifestyles, and preferences of the class participants.

• The difference between the five teaching styles applicable to an exercise class: command, practice, reciprocal, self-check, and inclusion. (Chap. 7)
• The use of selected teaching strategies in an exercise class: slow-to-fast, repetition reduction, spatial, part-to-whole, and simple-to-complex. (Chap. 7)
• Fundamental elements of music in conjunction with movement patterns. (Chap. 7)
• Guidelines when selecting choreography and the two basic choreography methods: freestyle choreography and structured choreography. (Chap. 7)
• Three domains of human behavior: cognitive domain, affective domain, motor domain. (Chap. 7)
• The three stages of learning motor skills and the instructor guidelines to facilitate moving participants from the beginning level to the advanced level. (Chap. 7)

Task 2 – Monitor intensity using a variety of methods so that participants can exercise at the most appropriate levels for improving health and fitness.

• Acute responses to aerobic exercise. (Chap. 1)
• Physical responses to and guidelines for exercising in the heat, cold and at higher altitudes. (Chap. 1)
• The 2006 ACSM Exercise Programming Guidelines for Healthy Adults. (Chap. 6)
• Methods for monitoring intensity (e.g., maximum heart rate, target heart rate, RPE scale, dyspnea scale, talk test). (Chap. 6)
• Practical application to using monitoring intensity in the group exercise setting. (Chap. 6)
• Obesity and diabetes (select metabolic disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
• Asthma, bronchitis, and emphysema (select respiratory and pulmonary disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
• Arthritis, fibromyalgia, osteoporosis, and low back pain (select joint and bone disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
• Multiple sclerosis and exercise guidelines for persons with this disease. (Chap. 9)
• Coronary heart disease and hypertension (select cardiac diseases) and exercise guidelines for persons with these diseases. (Chap. 9)
• Exercise guidelines for children and older adults. (Chap. 9)
• Benefits of exercise during pregnancy (e.g maintaining or increasing cardiovascular fitness, muscular strength, and flexibility); guidelines, and current research findings. (Chap. 10)
Task 3 – Instruct participants using succinct and timely cues to prepare participants for the next movement and facilitate safe and effective exercise performance.

- Guidelines for using movement, verbal, and visual cues. (Chap. 7)
- The instructor's role in analyzing the movements and skills of the participants and the use of alignment cues to protect them from injury. (Chap. 7)
- Fundamental elements of music in conjunction with movement patterns. (Chap. 7)
- General teaching principles covered in chapter 2 of the DVD: safe environment, injury prevention, programming, transitions, mirroring class, and cueing.

Task 4 – Correct improper technique using appropriate strategies to prevent injury and/or improve performance of participants.

- Common principles in pre-class preparation for any group exercise class. (Chap. 6)
- Common principles behind the warm-up for any group exercise class. (Chap. 6)
- Common principles behind the cardiorespiratory segment of most group exercise classes. (Chap. 6)
- Common principles in the muscular strength and endurance segment of most group exercise classes. (Chap. 6)
- Common principles in the flexibility segment of most group exercise classes. (Chap. 6)
- Modifying class segments and exercises to meet the needs of different participants. (Chap. 6)
- The proper class sequences for different audiences, design an effective class, and teach the correct exercises. (Chap. 7)
- The necessary skills to determine which exercises and movement patterns are effective and safe. (Chap. 7)

Task 5 – Provide educational and motivational feedback using specific statements and demonstrations to maintain and improve exercise performance.

- Common anatomical, directional, and regional terms (Table 2.1) as they apply to the body. (Chap. 2)
- Common principles in pre-class preparation for any group exercise class. (Chap. 6)
- Common principles behind the warm-up for any group exercise class. (Chap. 6)
- Common principles behind the cardiorespiratory segment of most group exercise classes. (Chap. 6)
- Common principles in the muscular strength and endurance segment of most group exercise classes. (Chap. 6)
- Common principles in the flexibility segment of most group exercise classes. (Chap. 6)
- The components of instructor feedback: informational, based on performance standards, specific, and immediate. (Chap. 7)
- The use of specific and relevant feedback to provide motivation. (Chap. 8)
Task 6 – Provide exercise modifications to accommodate multiple fitness levels and special populations by demonstrating variations and options.

- Obesity and diabetes (select metabolic disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
- Asthma, bronchitis, and emphysema (select respiratory and pulmonary disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
- Arthritis, fibromyalgia, osteoporosis, and low back pain (select joint and bone disorders) and exercise guidelines for persons with these disorders. (Chap. 9)
- Multiple sclerosis and exercise guidelines for persons with this disease. (Chap. 9)
- Coronary heart disease and hypertension (select cardiac diseases) and exercise guidelines for persons with these diseases. (Chap. 9)
- Exercise guidelines for children and older adults. (Chap. 9)
- Common dysfunction and irritations including backache, pelvic floor weakness, diastasis recti, ligament strain, pubic pain, sacroiliac joint dysfunction, sciatica, nerve compression syndromes, over use syndromes, and muscle cramps. (Chap. 10)
- Specific techniques and considerations for conditioning exercises for the neck, shoulder girdle, shoulder and elbow joints, wrist joint, low back, abdominal wall, pelvic floor, hip flexors, hip extensors, hip abduction, hip adduction, knee extensors, knee flexors, and the ankle joint. (Chap. 10)
- General program modification through pregnancy and specific considerations for aquatic exercise, indoor cycling, strength training, and mind body classes. (Chap. 10)
- Postnatal guidelines for exercise and common musculoskeletal conditions. (Chap. 10)
- Special considerations for postnatal exercise following both natural and caesarean deliveries. (Chap. 10)

**DOMAIN III: GROUP LEADERSHIP METHODS**

Task 1 – Apply interpersonal skills by interacting with participants to build individual rapport, relationships, and adherence.

- Differences between and student centered instructor and a teacher centered instructor. (Chap. 6)
- Factors pertinent to creating a healthy emotional environment. (Chap. 6)
- Characteristics of an ideal group fitness instructor and how they influence participant adherence
  - Punctuality and Dependability
  - Professionalism
  - Dedication
  - Sensitivity to participants needs
  - Willingness to plan ahead
  - Recognizing signs of instructor burnout
  - Taking responsibility (Chap. 8)
• Techniques used by group fitness instructors to create group cohesion. (Chap. 8)

**Task 2 – Facilitate a sense of belonging by building a comfortable exercise environment for class participants to encourage success.**

- Factors pertinent to creating a healthy emotional environment. (Chap. 6)
- Modifying class segments and exercises to meet the needs of different participants. (Chap. 6)
- Three domains of human behavior: cognitive domain, affective domain, motor domain. (Chap. 7)
- Characteristics of an ideal group fitness instructor and how they influence participant adherence
  - Punctuality and Dependability
  - Professionalism
  - Dedication
  - Sensitivity to participants needs
  - Willingness to plan ahead
  - Recognizing signs of instructor burnout
  - Taking responsibility (Chap. 8)

**Task 3 – Motivate participants to set realistic exercise goals and take ownership of their exercise experiences to achieve optimal results and develop a lifelong exercise habit.**

- Realistic expectations and setting SMART goals. (Chap. 8)
- The components and application of a physical activity contract. (Chap. 8)
- Intrinsic rewards and their role in promoting adherence. (Chap. 8)
- Ways to incorporate exercise into participant programs during breaks due to vacations, holidays, work pressure, etc. (Chap. 8)
- Signs of exercise dependence/addictions and the role of the group fitness instructor in creating healthy attitudes about body image and exercise. (Chap. 8)

**Task 4 – Educate participants about lifestyle, fitness, and health using credible resources for participants to achieve optimal results.**

- Major factors influencing physical activity adherence: personal factors, program factors, and environmental factors. (Chap. 8)
- Appendix A: The ACE Code of Ethics

**DOMAIN IV: PROFESSIONAL RESPONSIBILITIES**

**Task 1 – Adhere to applicable law and industry guidelines by maintaining a working knowledge of current principles and accepted professional practices to protect the interests of participants and minimize the risk of litigation.**

- The 2006 ACSM Exercise Programming Guidelines for Healthy Adults. (Chap. 6)
• General teaching principles covered in chapter 2 of the DVD: safe environment, injury prevention, programming, transitions, mirroring class, and cueing.
• The description, music considerations, safety, and tips for traditional aerobics, step aerobics, kickboxing fitness, and group indoor cycling. (DVD)
• Liability and negligence and their impact on standard of care. (Chap. 12)
• The seven major areas of responsibility of a group fitness instructor: health screening, testing and programming, instruction, supervision, facilities, equipment, and risk management, and the guidelines for group fitness instructors to follow. (Chap. 12)
• The four common approaches for managing potential risks: avoidance, retention, reduction and transfer. (Chap. 12)
• The difference between general liability insurance, professional liability insurance, disability insurance, and individual medical insurance. (Chap. 12)
• The appropriate use and components of a waiver and informed consent. (Chap. 12)
• Basic defenses against negligence claims: assumption of risk, contributory negligence, comparative negligence, and act of God. (Chap. 12)
• The elements of a contract. (Chap. 12)
• The difference between an employee and an independent contractor. (Chap. 12)
• Copyright law, specifically performance licenses and how to obtain copyright protection. (Chap. 12)
• Copyright law as it applies to music used in an exercise class. (Chap. 12)
• The importance of liability insurance. (Chap. 12)
• Application of the American with Disabilities Act to group exercise. (Chap. 12)
• The scope of practice of a group fitness instructor. (Chap. 12)

Task 2 – Adhere to the ACE Code of Ethics by upholding its principles consistently to protect the interests of participants, enhance consumer confidence in the industry, and maintain professional responsibilities.

• Appendix A: The ACE Code of Ethics

Task 3 – Response to acute medical conditions and injuries as they arise by implementing CPR, AED, and first aid, obtaining necessary assistance, and following documentation procedures to provide appropriate care and risk-management.

• Symptoms and types of musculoskeletal injuries. (Chap. 11)
• Factors associated with participant injury (flooring/exercise surface, footwear, equipment, movement execution, class intensity and frequency of participation, and pre-class evaluation). (Chap. 11)
• Sprains, strains, tendonitis and considerations for group exercise participants. (Chap. 11)
• Select musculoskeletal injuries (lateral ankle sprain, plantar fasciitis, rotator cuff strain, rotator cuff impingement, anterior shoulder instability, lateral epicondylitis, medial epicondylitis, anterior cruciate ligament tear and reconstruction,
patellofemoral pain disorders, and shin splints) and considerations for group exercise participants. (Chap. 11)

- The five main areas of focus for a group exercise emergency plan. (Chap. 11)
- CPR performance guidelines. (Chap. 11)
- The components of an accident report and its application to the statute of limitations in each state. (Chap. 12)
- The four common approaches for managing potential risks: avoidance, retention, reduction and transfer. (Chap. 12)

**Task 4 – Respond to emergencies as they arise by following established procedures and incident-reporting requirements to maximize participant’s safety and manage risk.**

- The five main areas of focus for a group exercise emergency plan. (Chap. 11)
- The components of an accident report and its application to the statute of limitations in each state. (Chap. 12)
- The four common approaches for managing potential risks: avoidance, retention, reduction and transfer. (Chap. 12)

**Task 5 – Protect clients and other interested parties by assessing insurance needs as they relate to group exercise instruction to minimize financial risk.**

- The difference between general liability insurance, professional liability insurance, disability insurance, and individual medical insurance. (Chap. 12)
- The importance of liability insurance. (Chap. 12)

**Task 6 – Enhance professional competence through ongoing education in current research and exercise modalities to optimize group fitness instruction.**

- Appendix A – ACE Code of Ethics