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## Section I: General Information

## Who is ACSM?

The American College of Sports Medicine (ACSM) serves as the largest sports medicine and exercise science organization in the world. With more than 16,000 members and 34,000 certified professionals worldwide, ACSM remains dedicated to advancing and integrating scientific research to provide educational and practical applications of exercise science and sports medicine.



Representing 70 occupations within the sports medicine field, ACSM is the only organization that offers a 360-degree view of the profession. From academicians to students and from personal trainers to physicians, our association of sports medicine, exercise science, and health and fitness professionals seeks to help people worldwide live longer, healthier lives.

The ACSM Committee on Certification and Registry Boards (CCRB) oversees ACSM's certification programs. The CCRB is an independent body within ACSM that develops and administers ACSM certification programs.

All certified American College of Sports Medicine Credentialed Professionals (ACSMCP) must agree to abide by the established Code of Ethics (see Appendix E). This code is intended to establish and maintain a high level of ethical conduct, as defined by standards by which an ACSMCP may determine the appropriateness of 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.

## Statement of Non-Discrimination

The American College of Sports Medicine strives to comply with all applicable federal and state laws. It does not knowingly violate such laws in its employment activities, membership policies, membership programs, educational activities, certification matters or program funding, nor knowingly discriminate on the basis of race, religion, color, gender, sexual preference, military status, age, national or ethnic origin, disability or handicap. It attempts to make its programs equally accessible to all persons regardless of disability.

## **Programmatic and Personnel Accreditation**

Accreditation is a process in which a third party independently verifies that, among others, a program or organization can uphold its obligations to adequately support its stakeholders and/or keep the public safe. In general, there are two main accreditation types that are germane to the exercise and fitness industry: (1) programmatic accreditation and (2) personnel accreditation. Each accreditation type uniquely contributes to the development, assessment and growth of exercise professionals. ACSM believes that formalized exercise science education and continuing professional development are cornerstones of competent exercise professionals.



Programmatic accreditation ensures that education programs adequately prepare candidates and students for the workforce. Academic accrediting agencies develop evaluation criteria in accordance with standards and conduct evaluations to assess

whether those criteria are met. The Committee on Accreditation for the Exercise Sciences (CoAES) was established in April 2004 under the auspices of the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Programmatic accreditation through CAAHEP is specifically intended for Exercise Science or related departments (Physical Education, Kinesiology, etc.) with a professional preparation tract designed for students seeking employment opportunities in the health, fitness and exercise industry.



Personnel accreditation provides impartial, third-party validation that a certification program has met recognized international credentialing standards for development, implementation and maintenance of certification programs. Professional competency is validated through written and/or performance assessments, and

it is independent of formalized education or training. National Commission for Certifying Agencies (NCCA) is an independent, non-governmental agency that accredits certification programs in a variety of professions to ensure the health, welfare and safety of the public. The NCCA reviews the certification organization's procedures, protocols and operations, and determines if the certification properly discriminates between those who are qualified and those who are not qualified to be awarded the respective credential. The ACSM-CPT°, ACSM-EP° and ACSM-CEP° certification programs earned initial accreditation by the NCCA between 2006 and 2007. ACSM is currently in the process of earning NCCA accreditation for the Certified Group Exercise Instructor® (ACSM-GEI®) program.

## Section II:

## **Certification**

# **Professional**Certifications

ACSM develops and administers four certification programs, each with a unique population and/or programming focus. The professional certifications assure that candidates and certificants (1) comply with eligibility requirements and (2) meet a minimum level of competence (i.e., knowledge and skills) attributed to a specific ACSM credential. The roles of the core certification programs are described at right.



## Certified Group Exercise Instructor® (ACSM-GEI®)

ACSM-GEIs are fitness professionals who safely teach, lead and motivate individuals through intentionally designed, effective exercise classes. These instructors provide safe instruction across many class types and equipment sets, from choreographed fitness classes to HIIT and beyond.

## Certified Personal Trainer® (ACSM-CPT®)

The ACSM Certified Personal Trainer\* (ACSM-CPT\*) is qualified to plan and implement exercise programs for healthy individuals or those who have medical clearance to exercise. The ACSM-CPT\* facilitates motivation and adherence, as well as develops and administers programs designed to enhance muscular strength, endurance, flexibility, cardiorespiratory fitness, body composition and/or any of the motor skill-related components of physical fitness.

## Certified Exercise Physiologist® (ACSM-EP®)

An ACSM Certified Exercise Physiologist\* (ACSM-EP\*) works with apparently healthy clients and those with medically controlled diseases to establish safe and effective exercise and healthy lifestyle behaviors to optimize both health and quality of life. The ACSM-EP\* conducts preparticipation health screenings, submaximal graded exercise tests, strength, flexibility and body composition assessments.

## Certified Clinical Exercise Physiologist (ACSM-CEP)

An ACSM Certified Clinical Exercise Physiologist\* (ACSM-CEP\*) is a health professional who utilizes prescribed exercise and basic health behavior interventions, as well as promotes physical activity for individuals with chronic diseases or conditions. The ACSM-CEP\* provides primary and secondary prevention strategies designed to improve, maintain or attenuate declines in fitness and health in populations ranging from children to older adults. The ACSM-CEP\* provides exercise screening, exercise and fitness testing, exercise prescriptions, exercise and physical activity counseling, exercise supervision, exercise and health education/promotion, and measurement and evaluation of exercise and physical activity-related outcome measures.

## **Eligibility Requirements**

To earn an ACSM certification, candidates must meet the eligibility requirements and pass the certification examination. ACSM certifications are valid for three years. Candidates certified prior to 2025 have an expiration date of December 31. Candidates newly certified in 2025 have an expiration date of three years from the date of initial certification. As stated in the ACSM Code of Ethics (see Appendix E), ACSM Certified Professionals agree to maintain their credential through continuing education. The purpose of periodic recertification is to ensure ACSMCPs are current with up-to-date research, professional standards/ practice and guidelines in the fitness, health care and/or allied health industries.

Candidates must meet the outlined established eligibility requirements to register or apply for a certification exam.

## ACSM Certified Group Exercise Instructor (ACSM-GEI) Eligibility Requirements

- · Minimum of a high school diploma or equivalent
- Possess current adult CPR/AED certification that has a live/in-person practical skills examination component (i.e., American Heart Association or the American Red Cross)
- First Aid (beginning 2027)

## ACSM Certified Personal Trainer® (ACSM-CPT®) Eligibility Requirements

- · Minimum of a high school diploma or equivalent
- Possess current adult CPR/AED certification that has a live/in-person practical skills examination component (i.e., American Heart Association or the American Red Cross)
- · First Aid (beginning 2027)

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## ACSM Certified Exercise Physiologist® (ACSM-EP®) Eligibility Requirements

- · At least a Bachelor's degree with a major in Exercise Science (or equivalent) from a regionally accredited college/university. Candidates are eligible to take the examination in the last semester of their degree program. An equivalent major refers to the completion of a degree that includes a minimum of 21 semester or 28 quarter hours of exercise science courses and clearly identifies the following content:
  - · Exercise Physiology (minimum 3.0 credit, stand-alone course, or equivalent)
  - · Strength and Conditioning (course[s] includes principles of strength and conditioning; a 1 credit hour activity course on strength training does not qualify)
  - · Applied Kinesiology or Biomechanics
  - · Anatomy and Physiology (combined or separate courses)
  - Exercise Testing and Prescription (course[s] must include exercise testing and prescription for healthy populations and special considerations such as children, older adults, pregnancy, diseased populations, etc.)
  - · Special Populations (course[s] must include pathophysiology on a range of conditions, including CVD, pulmonary, metabolic, older adults, pregnancy, etc.)
  - · Health Risk Appraisal (course[s] must include information on risk stratification or classification given a variety of health conditions)
  - · There is no petition or appeals process for non-exercise sciencebased degree programs nor consideration made for past experience.
- · Possess current adult CPR/AED certification that has a live/in-person practical skills examination component (i.e., American Heart Association or the American Red Cross)
- First Aid (beginning 2027)

## ACSM Certified Clinical Exercise Physiologist® (ACSM-CEP®) Eligibility Requirements [Pathway A OR Pathway B]

## · Pathway A

- · Master's degree in Clinical Exercise Physiology or equivalent from a regionally accredited college/university
- · Minimum of 600 hours of clinical experience in a clinical exercise program (e.g., cardiac/pulmonary rehabilitation programs, exercise testing, exercise prescription, electrocardiography, patient education and counseling, disease management of cardiac, pulmonary and metabolic diseases)
- · Current certification in Basic Life Support Provider (BLS) or CPR for the Professional Rescuer certification (with hands-on practical skills component)
- First Aid (beginning 2027)

## · Pathway B

- · Bachelor's degree in Exercise Science, Exercise Physiology or Kinesiology from a regionally accredited college/university
- · Minimum of 1,200 hours of clinical experience in a clinical exercise program (e.g., cardiac/pulmonary rehabilitation programs, exercise testing, exercise prescription, electrocardiography, patient education and counseling, disease management of cardiac, pulmonary and metabolic diseases)
- · Current certification in Basic Life Support (BLS) or CPR for the Professional Rescuer certification (with hands-on practical skills component)
- First Aid (beginning 2027)

## **ACSM-CEP Pathway A and B Documentation Requirements**

- ☐ Copy of current certification in Basic Life Support Provider (BLS) or CPR for the Professional Rescuer certification (with hands-on practical skills component)
- ☐ Clinical experience log
- ☐ Official transcript
- □ Additional supporting documents
  - ☐ Program curriculum
  - ☐ Course descriptions (syllabi and learning objectives may be requested if the description lacks sufficient detail. See Appendix D for CEP Content Requirements.)
- ☐ Course content
- ☐ Document formal preparation in the primary job task analysis content areas of clinical exercise testing and prescription, advanced exercise physiology and clinical exercise physiology/ pathophysiology. (See Appendix D for course content requirements by primary job task.)

## **Experience Requisites**

ACSM-CEP candidates are required to provide documented clinical experience (Master's prepared – 600 hours; Bachelor's prepared – 1,200 hours). Clinical experiential hours must be gained exclusively from a clinical setting. Additional restrictions and experience requisites are provided in the Candidate Handbook pages 5-6. Clinical hours may be earned through internships, volunteer hours and/or work experience. Virtual, hands-on counseling hours are accepted. Virtual counseling hours must document active participation in exercise counseling, prescription, and support. No more than 50% of required clinical experience hours can be attributed to virtual counseling.

CEP Applicable Experience	CEP Non-applicable Experience
1. Clinical hours related to:     a. clinical assessment     b. exercise testing     c. exercise prescription     d. exercise training     e. electrocardiography     f. patient education and counseling     g. disease management of cardiovascular, pulmonary,         metabolic, orthopedic/musculoskeletal,         neuromuscular, neoplastic, immunologic and         hematologic disorders  2. Assisted or direct role in providing services for:     a. exercise assessment     b. exercise prescription     c. supervision     d. counseling     e. education	1. Observation hours 2. Non-clinical experience 3. Hours with athletes or apparently healthy population 4. Personal training

## **ACSM-CEP Recommended Distribution of Clinical Experience Hours**

Condition or Disease	Pathway A: Master's Hours	Pathway B: Bachelor's Hours
Cardiovascular	180	360
Pulmonary	40	80
Obesity/Metabolic	150	300
Orthopedic/Musculoskeletal	40	80
Neoplastic	40	80
Frailty	40	80
Behavior Change/Education	70	140
Neuromuscular	40	80
Total:	600	1,200

## Section III: Examination

# Exam Preparation

With thousands of new candidates applying for ACSM certification every year, no single exam preparation solution fits every busy lifestyle. Every exam candidate is different in terms of learning style and price point. As such, ACSM offers several optional resources from live events to textbooks and flash cards to help **candidates prepare**. These resources can be combined into a preparation plan that meets the needs of a candidate based on their academic background and practical experience. While these materials also help candidates prepare for the corresponding ACSM certification exam, candidates who choose to use and/or purchase preparatory materials are not guaranteed a passing score on any ACSM examination.



#### ACSM study materials can be found online:

https://www.acsm.org/certification/get-certified.

ACSM resources are not required and should not be interpreted as the sole source for ACSM exams. Candidates may find ACSM study resources useful when preparing for the exam. Candidates should develop their study plan based on their knowledge, experience and specific needs.

## **Exam Content Outlines**

Each ACSM certification exam has an exam content outline that organizes knowledge and skills into major content domains and job tasks. The job of an exercise professional ranges from simple to complicated tasks. Much in the same way, the ACSM exams are written at different levels of cognitive complexity. Cognitive complexity is a way of describing the extent to which a candidate should know or be able to do something. A low level of cognitive processing is simple recall of information whereas a higher level of cognitive processing includes analysis, evaluation and judgment. ACSM uses three levels of cognitive challenge: recall, application and synthesis. The exam content outlines can be found in Appendix C.

## Exam Fees (effective January 1, 2025)

Certification	ACSM Member Candidates	Non-ACSM Member Candidates	Re-test
ACSM-GEI	\$310	\$410	\$205
ACSM-CPT	\$310	\$410	\$205
ACSM-EP	\$350	\$460	\$235
ACSM-CEP	\$350	\$460	\$235

<sup>\*</sup> prices in USD

## **Exam Scheduling**

ACSM has partnered with Pearson VUE for exam administration to ensure candidates may take an exam at a convenient time and location. Pearson VUE administers exams at more than 5,000 computer-based testing centers across the globe. Dates and location are subject to availability.

## **ACSM Exam Application & Registration Process**

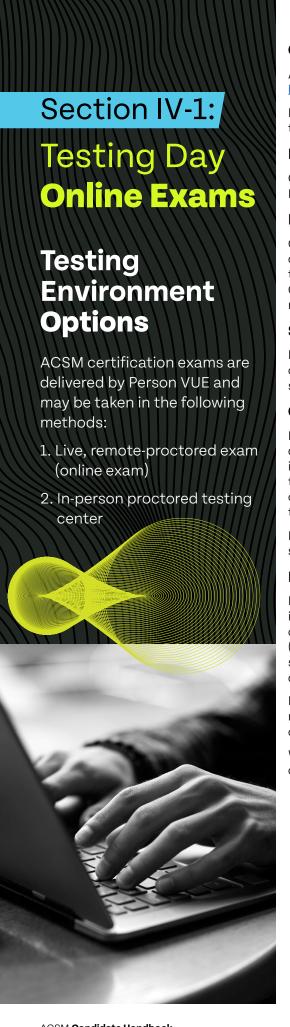
ACSM exam applicants must submit a completed application and supporting documents to ACSM via the MyACSM portal. The required documents are outlined in the Eligibility Requirements section (pages 5-6). If a candidate fails to meet the eligibility criteria, the exam fee will be refunded, however ACSM will retain the application fee, and the candidate may reapply once the eligibility requirements are met. If a candidate's application is approved, ACSM will notify the candidate via email and allow exam scheduling at Pearson VUE from the MyACSM Portal.

## **Special Accommodations**

ACSM complies with the Americans with Disabilities Act of 1990 (ADA). To ensure equal opportunities for all qualified persons, the CCRB will make reasonable testing accommodations for certification candidates when appropriate and consistent with such legal requirements. The CCRB will consider requests for testing accommodations related to any ACSM certification exam from candidates with a documented disability that substantially limits the candidate's sensory, manual, speaking or other functional skills, including a disability that impairs significantly the candidate's ability to arrive at, read or otherwise complete, the examination.

These accommodations may include additional time to complete the exam or use of approved auxiliary aids and/ or services. If a candidate has questions or needs the auxiliary aids or services identified in the Americans with Disabilities Act, please contact ACSM at (317) 637-9200 or certification@acsm.org.

Candidates who require special accommodations must submit the Special Accommodations Request Form at the time of submitting their exam application in the MyACSM Portal a minimum of 30 days prior to expected examination date. An example of the Special Accommodations Request Form can be found in Appendix B.



## Online Exams (OnVUE)

An overview of the online testing experience can be viewed online at <a href="https://home.pearsonvue.com/acsm/onvue">https://home.pearsonvue.com/acsm/onvue</a>

Review the <u>PearsonVue Online Testing Guide</u> for an all-inclusive guide to taking the exam online as well as the <u>Online Test Taker Decision tree</u> (see page 12).

## **International Availability**

OnVUE testing is not currently offered in the following countries: China, Cuba, India, Iran, Japan, Korea and Sudan.

#### **Breaks**

Online proctored exams do not include breaks. Candidates who leave their computer for any reason during the exam will have their exam automatically terminated by the proctor. Candidates are prohibited to continue testing. Candidates who have their exams terminated forfeit their exam registration and must reschedule their exam (including retest fees) for a future date.

## **Special Accommodations Availability**

Due to the nature and restrictions of online proctoring, additional time and other accommodations are not available. If accommodations are needed, standard testing at a testing center is required.

## **Candidate Rules Agreement**

Policies covering OnVUE testing differ from those that apply to test center delivery because candidates must agree to allow themselves to be recorded in their own space and to have artificial intelligence (AI) and other advanced technology techniques applied. Candidates must choose the OnVUE exams option upon registration. Candidates must accept and uphold various policies to schedule and complete the examination.

Prior to starting the exam, candidates will be asked to read and electronically sign a Candidate Rules Agreement.

## **Personal Belongings**

During the exam, candidates may not access the following types of personal items: mobile phones, headphones or headsets (wired or Bluetooth), handheld computers or other electronic devices, pagers, watches, wallets, purses, hats (or other head coverings), bags, coats, books, notes or any other materials not specifically approved. Watches must be removed and placed out of sight/reach during the exam.

During the exam session, candidates are not allowed to use exam-specific materials or scratch paper, erasable whiteboards or any other physical writing object, such as a pen, marker or pencil.

Water in a clear glass is allowed during testing; however, eating, smoking and chewing gum are prohibited.

#### Check In

Candidates have two options for checking in during the exam day.

- 1. Through the confirmation, reschedule or reminder emails, candidates can click the "Check-in to start exam" link if they are within 30 minutes prior to or up to 15 minutes past the appointment time.
- 2. Click the "Sign in now" button on the Pearson VUE webpage. The exam the candidate is scheduled to take will appear under "Open Online Exams" once logged in to their account. Select the exam link and then select "Check-in." If the "Check-in" button is not available within 15 minutes of the exam appointment time, please contact the Pearson VUE customer service team for assistance.

With either start process, candidates will be asked to download OnVUE, the online proctoring software. Follow the prompts in the application to complete the required check in steps. Candidates must have acceptable identification available so that the proctor can verify their identity.

Candidates must shut down any non-essential applications such as email, chat, calendars and messaging applications. Candidates should pay particular attention to any applications that may pop up unprompted reminders or messages during the exam.

Candidates will be placed in a queue and connected with the next available proctor to begin their exam. The check in process takes approximately 15 minutes for candidates who have previously completed a system test. To allow time for the check in procedure, please be ready when the check in window opens 30 minutes prior to the exam start time.

## Starting the Exam

Once candidates have completed all required check in steps, candidates will see a page that states, "You are almost done with the check-in process." Please be patient as Pearson VUE is checking in candidates who are also in queue. Most candidates will have their exam launched by a proctor within 15 minutes of the exam appointment. If a candidate is experiencing a longer delay, there may be a problem with the photos or internet connection. If there is an issue with the submitted photos, a proctor will attempt to reach the candidate via chat or mobile phone. The incoming phone number may be unfamiliar but please answer so Pearson VUE can help you. If Pearson VUE has not contacted the candidate within 30 minutes, the connection between the candidate and proctor may have been lost and Pearson VUE was unable to reach out to help resolve this issue. Please contact the Pearson VUE customer service team via chat for required assistance.

#### No Show & Late Arrival

Candidates should make every effort to access the online exam at least 30 minutes prior to their scheduled appointment time.

If a candidate signs in *more than 15 minutes after* the scheduled appointment time, it is up to the discretion of the exam proctor whether the candidate may still take the exam (either immediately or later the same day).

If the proctor is unable to accommodate a late-arriving candidate, the candidate will not be able to take the test that day. The candidate will need to reapply for the exam and pay the associated fees again. The candidate's results will be automatically entered in the testing system as "no show."

If a candidate does not show for an exam at all, the candidate will be listed as a "no show" and will forfeit all fees associated with this appointment. Candidates may reapply for the exam and pay the associated fees again.

## **Identification Requirements**

Candidates must provide two forms of proper identification (ID) – a primary and a secondary ID. IDs must be an original document and a not a photocopy or a fax. Candidates will not be allowed to sit for the exam if the proper ID is not provided.

- A primary ID must contain a permanently affixed photo of the candidate, along with the candidate's signature, and must be valid (not expired).

  Acceptable primary IDs are listed in the table below.
- A secondary ID must contain the candidate's signature. Acceptable secondary IDs are listed in the table below.

IDs are considered to be valid (non-expired) as long as they do not contain an expiration date that has passed. If there is no expiration date on an ID, it is considered to be valid. The candidate must sign the ID before accessing the online exam; it is not acceptable for the candidate to sign the ID when checking in.

Acceptable forms of ID			
Primary ID (picture and signature, not expired)	Secondary ID (signature, not expired)		
Government-issued driver's license	· U.S. Social Security card		
Employee ID or work badge	· Bank automatic-teller machine (ATM) card		
· School ID	· Any form of ID on the Primary lists		
• Passport			
· Military ID			
<ul> <li>Alien registration card (green card, permanent resident visa)</li> </ul>			
· Credit card*			
<ul> <li>Other government-issued ID, such as a state/country identification card</li> </ul>			

<sup>\*</sup> A note about credit cards: A credit card can be used as a primary form of ID only if it contains both a photo and a signature and is not expired. Most credit cards do not meet these requirements. Any credit card can be used as a secondary form of ID, as long as it contains a signature and is not expired. This includes major credit cards, such as VISA, MasterCard, American Express and Discover. It also includes department store and assoline credit cards.

## **Exam Supplies**

During the OnVUE exam, candidates may have the option to use a built-in digital whiteboard feature to take notes. Physical scratch paper or note boards are not allowed when taking an OnVUE exam.



Using the whiteboard during your OnVUE exam

A practice online whiteboard is available at the bottom of the page



Check out the whiteboard before your

screen during your exam

You can use the whiteboard for scratch work, with one area for text and another area for free-form drawing

drawing Write or draw text, lines, or shapes

## With the online whiteboard, you can:

- Draw different shapes and lines as needed
   Erase or clear to start something new, but don't worry will be accessible in every section during your entire e
   Resize or move the whiteboard around your screen

#### Opening and closing the whiteboard

During an OnVUE testing session, you can open and close the whiteboard as many times as you wish.

Any work that you enter will remain available, even if the whiteboard is closed. When it's reopened, you can start where you left off.

#### Whiteboard content loss

If connectivity is lost during the exam, the whiteboard will be wij

computer's mouse or trackpad. If you have a touchscreen laptop, you cannot use a stylus, your finger, or other writing apparatus to write on the whiteboard. The whiteboard also cannot be used with a connected writing tablet or pad or dual monitors.

#### Practice using the whiteboard



With the online whiteboard, you can:

- · Draw different shapes and lines.
- · Pan across the whiteboard, zoom in/out to use different areas on the same whiteboard screen.
- · Erase/clear to start something new. Work will be accessible in every section during the entire exam.
- · Resize or move the whiteboard around the screen.

It is strongly recommended that candidates familiarize themselves with the whiteboard before starting the exam. Additional details, limitation and a practice whiteboard can be found online at <a href="https://home.pearsonvue.com/onvue/">https://home.pearsonvue.com/onvue/</a> whiteboard.

A standard or scientific calculator will be provided within the exam. The metabolic equations for gross VO in metric units will be supplied within appropriate exams (see Appendix J). All other formulas (e.g., heart rate calculations, body mass index, waist-to-hip ratio) to complete an answer will not be provided within the exam.

## **Technical Requirements**

OnVUE supports both Windows and Mac operating systems. As of August 2021, the following operating system requirements are:

## **Supported Operating Systems:**

- · Windows 10 (64-bit) (excluding 'S Mode')
- · Windows 8.1 (64-bit) (all editions except 'RT')
- Mac OS 10.13 and above (excluding beta versions)
- · Note: Windows Operating Systems must pass Genuine Windows Validation.

## Strictly Prohibited Operating Systems:

- Windows Vista, Windows XP and Windows 7
- · All Linux/Unix based Operating Systems

It is the candidate's responsibility to review the technical requirements to ensure the system is compatible with the online proctoring software. If the candidate's system does not meet Pearson VUE's requirements and causes a problem during the exam, candidates will have to reschedule at their own cost.

Most issues can be avoided by completing a system test and ensuring that all system requirements are met in advance of testing. Common issues include an unreliable internet connection and third-party applications trying to run during the exam. ACSM strongly recommends that candidates confirm that all applications have been closed and that there is a sufficient and reliable internet connection prior to testing

ACSM strongly recommends using a personal computer (not issued from an employer) and a wired, ethernet connection. The two most frequent causes of technical issues with online proctored exams are (1) testing on a work computer and (2) an unreliable internet connection. Firewalls or security settings from work computers may restrict the software from operating properly. Unreliable internet connections (wireless network, VPN, mobile hotspot) may lead to disconnections.

A complete list of the current requirements and specifications can be found online at <a href="https://home.">https://home.</a> pearsonvue.com/acsm/onvue.

## **Alerting the Proctor**

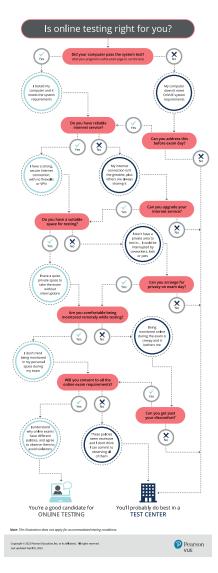
In OnVUE, the chat function allows candidates to connect with the proctor.



## **Alerting the Candidate**

ACSM asks candidates to keep their mobile phones nearby (but not in arm's reach) in case the proctor needs to alert them. If the candidate's phone starts ringing or beeping during an exam, candidates should ignore the notifications. If the proctor questions the candidate about the noise, candidates should explain that it was their phone ringing. If candidates have an alarm or reminder that goes off on their phone, they will be allowed to turn off the alarm

Proctors may interrupt candidates if there is any suspicious behavior or rule violations and take appropriate actions. Sometimes it is to offer a reminder (no talking), and sometimes it is to investigate something in the testing area (show me the room, desk, etc.).



## **Assistance During the Exam**

Candidates may not receive any assistance from individuals while taking the exam, and candidates may not allow other individuals to see the computer screen that presents the exam questions.

If another person enters the room while the candidate is testing and/or is visible within their camera screen, the exam will be terminated.

The proctor cannot answer questions related to exam content.

## **Prohibited Behaviors**

Similar to proctors at a testing center, online proctors ensure testing rules are followed, but they also must ensure candidates follow some additional protocols for an online proctored exam. Examples of prohibited behaviors include, but are not limited to, failing to follow proctor's instructions, looking off the screen, mumbling or speaking aloud, covering the mouth or face, using unauthorized materials (e.g., mobile phones, headphones, recording equipment, writing materials), interacting with third parties intentionally or unintentionally, or leaning outside the view of the webcam. If a proctor identifies any prohibited behavior, they will instruct the candidate to stop. If the prohibited behavior is not stopped the testing session will be terminated.

## **Lost Internet Connection**

If the connection with the proctor is lost, a proctor will try to contact the candidate either through the computer or by phone to see what happened and offer help in restarting the exam. If the candidate does not respond to the proctor, the testing session will be terminated. The proctor will also create a case for the candidate in the Pearson VUE system, outlining what happened and standard protocols regarding test revocation will be followed. If, during the exam, a proctor asks the candidate to restart or the candidate loses connection to their exam, the candidate can resume testing by relaunching the application through their downloads by following these steps:

- 1. Locate the downloads folder and reopen the OnVUE application.
- 2. Recomplete any requested check-in steps and then click next. The exam should reload and begin. If the exam does not relaunch, please contact the Pearson VUE customer service team via <a href="chat">chat</a> for additional support.



## **In-Person Testing**

On the day of the exam appointment, candidates are encouraged to arrive at least 15 minutes prior to their appointment. Review the test center location information in the appointment confirmation email sent by Pearson VUE. Checkin procedures include verifying candidate ID, signature, biometric data and abiding with the testing facility's Candidate Rules Agreement.

## **Testing Environment**

Candidates should dress accordingly for comfort in a wide range of room temperatures.

## **Candidate Rules Agreement**

Prior to being seated for an exam, candidates will be asked to read and sign a Candidate Rules Agreement and return it to the test administrator.

## **Personal Belongings**

Candidates are discouraged from bringing any personal belongings to the testing center, since these items must be stored in a secure space and are not permitted in the testing room. Candidates are not allowed to bring any items into the testing room.

The following are examples of items NOT allowed in the testing room (and must be stored outside the testing room):

- Purses
- Wallets
- · Coats or jackets
- Briefcases
- · Mobile phones
- Backpacks
- · Pagers
- Watches
- Calculators
- Pens and pencils belonging to the candidate (only supplied writing instruments are allowed)
- · Dictionaries, including language translation dictionaries
- Food, drink or tobacco
- · Notes, notebooks, study guides

## **Comfort Aids**

Certain items defined as "minor comfort aids" may be allowed in the testing room as long as the item is checked by the test center administrator before they are brought into the testing room. These include:

- · Tissues (i.e., Kleenex)
- Cough drops
- · Support pillow (including neck pillow worn by people with neck injuries)
- · Sweater or sweatshirt
- Eyeglasses
- · Hearing aids or earplugs

A candidate must provide his or her own comfort aids. These are not considered to be accommodations and therefore do not need to be pre-approved by Pearson VUE or ACSM.

Eyedrops, water bottles, asthma inhalers, diabetic testing equipment and other medical devices are not allowed in the testing room unless the candidate has been granted an accommodation for the item in advance. Candidates should follow the accommodations policy for consideration of a comfort aid (see Appendix B).

## **Approved Exam Supplies**

The candidate will be provided with an erasable notepad and erasable pen, or blank notepaper. Scratch paper of any kind is never permitted in the testing room. Candidates are not allowed to use their own paper; notebooks or notepads of any kind are not allowed.

Candidates are not permitted to bring their own writing instruments into the testing room. The testing center will provide any pens or pencils that are required for the exam. Candidates are not permitted to write on the erasable note boards or notepaper until after the exam has been started.

A standard or scientific calculator will be provided within the exam. Metabolic equations will be supplied within appropriate exams (see Appendix J). All other formulas (e.g., heart rate calculations, body mass index, waist-to-hip ratio) to complete an answer will not be provided within the exam.

#### **Pre-Test Tutorial**

A short pre-test tutorial is provided to allow candidates to become familiar with the mouse, selecting answer choices, and/or marking items for review. Time allocated for the tutorial is separate from the exam time.

## **Breaks**

If the candidate requires a break during the exam, the timing of the exam will not stop. The candidate's ID may be checked upon returning to the exam room.

## **Special Accommodations**

Candidates may request, in advance, reasonable accommodations. See Appendix B for the form and additional details.

## No Show/Late Arrival

Candidates should make every effort to arrive at the testing center at least 15 minutes prior to their scheduled appointment time.

If a candidate arrives *late but within 15 minutes* of the scheduled appointment time and the test center administrator is not able to seat the candidate for the exam, the candidate will have the opportunity to reschedule the exam without penalty.

If a candidate arrives more than 15 minutes after the scheduled appointment time, it is up to the discretion of the testing center whether the candidate may still take the exam (either immediately or later the same day).

If the test center is unable to accommodate a late-arriving candidate, the candidate will not be able to take the test that day. The candidate will need to reapply for the exam and pay the associated fees again. The candidate's results will be automatically entered in the testing system as "no show."

If a candidate does not arrive for an exam at all, the candidate will be listed as a "no show" and will forfeit all fees associated with this appointment. Candidates may reapply for the exam and pay the associated fees again.

## **Identification Requirements**

Candidates must provide two forms of proper identification (ID) – a primary and a secondary ID. IDs must be an original document and a not a photocopy or a fax. Candidates will not be seated for the exam if the proper ID is not provided.

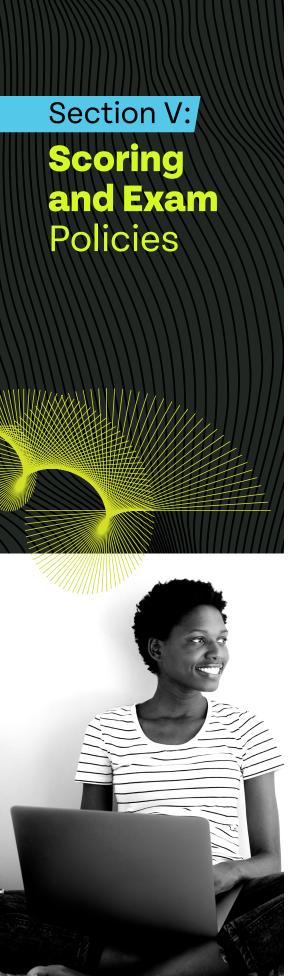
- A primary ID must contain a permanently affixed photo of the candidate, along with the candidate's signature, and must be valid (not expired).

  Acceptable primary IDs are listed in the table below.
- A secondary ID must contain the candidate's signature. Acceptable secondary IDs are listed in the table below.

IDs are considered to be valid (non-expired) as long as they do not contain an expiration date that has passed. If there is no expiration date on an ID, it is considered to be valid. The candidate must sign the ID before arriving at the testing center; it is not acceptable for the candidate to sign the ID when checking in.

Acceptable forms of ID			
Primary ID (picture and signature, not expired)	Secondary ID (signature, not expired)		
Government-issued driver's license Employee ID or work badge School ID Passport Military ID Alien registration card (green card, permanent resident visa)	U.S. Social Security card Bank automatic-teller machine (ATM) card Any form of ID on the Primary lists		
Credit card*     Other government-issued ID, such as a state/country identification card			

<sup>\*</sup> A note about credit cards: A credit card can be used as a primary form of ID only if it contains both a photo and a signature and is not expired. Most credit cards do not meet these requirements. Any credit card can be used as a secondary form of ID, as long as it contains a signature and is not expired. This includes major credit cards, such as VISA, MasterCard, American Express and Discover. It also includes department store and gasoline credit cards.



## Non-Disclosure Agreement and Ethics Code Compliance

Prior to starting the exam, either at a testing center or using OnVUE, candidates will be asked to agree with the terms described in both the ACSM non-disclosure agreement (NDA) (see Appendix H) and the Code of Ethics for ACSMCPs (see Appendix E). Candidates who do not accept the terms of these statements will not be allowed to proceed with the exam.

## **Exam Rescheduling and Cancellation Policy**

All requests to cancel or transfer exams must be made in your MyACSM Portal.

## **Reschedule Policy**

Candidates who wish to reschedule their exam must do so in the MyACSM Portal one business day/a full 24 hours prior to the exam appointment. Candidates who reschedule an exam less than one business day in advance, or fail to appear for the exam, will forfeit all associated fees. If the candidate does not arrive within 15 minutes of the scheduled start time, then the candidate is considered a no show, has forfeited the exam and will forfeit all associated fees.

## **Cancellation Policy**

Candidates who wish to cancel their exam must do so one business day/a full 24 hours prior to exam appointment. Candidates who cancel an exam less than one business day in advance or fail to appear for the exam will forfeit all associated fees. If the candidate does not arrive within 15 minutes of the scheduled start time, then the candidate is considered a no show, has forfeited the exam and will forfeit all associated fees.

## **Retest Policy**

Candidates may retake the exam 15 days following a failed attempt. Candidates must wait at least 15 days to retake an exam from the most recent date the exam was taken.

Candidates may take the exam up to 4 times in a 12-month period. Candidates may retake the exam 15 days following a failed attempt. Candidates must wait at least 15 days to retake an exam from the most recent date the exam was taken. If a passing score is not achieved in 4 exam attempts in 12 months, the candidate must wait 12 months after the 4th attempt to retake the exam. Candidates do not need to resubmit eligibility documentation unless their CPR/AED certification has lapsed. All candidates will begin with zero attempts beginning February 20, 2025.

## **Score Reports**

Candidates receive their exam score and pass/fail status immediately upon submission of their completed examination, including all applicable testing materials. Only the score determines pass/fail status. Domain level performance is only provided as a guide for failed candidates to identify areas of strength and weakness should they choose to take the examination in the future.

ACSM's CCRB reserves the right to void exam results, pending receipt, investigation and confirmation of any subsequent incident reports regarding irregular behavior, either from a candidate or Pearson VUE testing center staff.

Additional information on scoring methodology can be found on the ACSM website: <a href="https://www.acsm.org/certification/about">https://www.acsm.org/certification/about</a>.

## **Certification Confidentiality**

Examination scores are confidential and will not be disclosed unless specific written permission to do so is provided by the candidate prior to the exam, a specific written request (see Appendix G) to do so is received by the candidate after completion of the exam, or by subpoena or court order. Candidates must also indicate in writing the specific person or organization to whom the scores should be disclosed.

ACSM verifies, upon request, the status of all individuals that have passed their respective examination and maintain their current certification status.

ACSM allows all currently certified individuals to make their contact information available to public searches.

### **Candidate Misconduct**

Action taken against candidates who create disturbances or conduct themselves in a manner that may jeopardize the security of an exam or the comfort of other candidates may include removal from the certification program.

Misconduct includes, but is not limited to, the following behaviors:

- · Using unauthorized materials in the testing room
- Taking an exam for someone else
- · Causing disruptions of any kind
- Attempting to remove exam questions or responses from the testing room
- Tampering with computer hardware or software

## **Irregular Behavior**

The ACSM CCRB defines irregular behavior as any behavior that undermines or threatens the integrity of the application, assessment or certification processes of ACSM, whether it occurs before, during or after an exam.

Irregular behavior may include, but is not limited to, having or seeking access to exam materials before the exam; impersonating an examinee or engaging someone else to take the exam by proxy; copying answers from someone else or allowing one's answers to be copied; copying or memorizing and reproducing test items; altering or misrepresenting scores; stealing exam materials; possessing unauthorized materials during a computerbased exam (e.g., recording devices, photographic materials, printed reference material) or other such behavior which may cast doubt on the exam results of that or another person. It may also include making false representations during the application process or in connection with certification status, altering or falsifying ACSM certificates or other documents, or making the false representation that one is certified by ACSM by using the legally protected identity marks.

All ACSM CCRB exam content and items are proprietary and strictly confidential, and the unauthorized retention, possession, copying, distribution, disclosure, discussion or receipt of any examination question, in whole or in part, by written, electronic, oral or other form of communication,

including but not limited to emailing, copying or printing electronic files, and reconstruction through memorization and/or dictation, before, during or after an examination, is strictly prohibited. In addition to constituting irregular behavior subject to disciplinary action such as revocation of certification or eligibility for future certification for a specified period of time, such activities violate ACSM's proprietary rights, including copyrights, and may subject violators to legal action.

Exam applicants or examinees can be disqualified from taking or continuing to sit for an examination, or from receiving examination scores, and may be required to retake an examination if, at its sole discretion, the ACSM CCRB Executive Council (CCRB EC) determines through proctor observation, statistical analysis or any other means available to it, that said exam applicants or examinees were engaged in collaborative, disruptive or other irregular behavior before, during the administration of, or following the examination, or if the ACSM CCRB EC determines that the integrity or validity of the examination otherwise is in question.

In some instances, while the evidence of irregularity is sufficiently strong to cast doubt upon the validity of scores, such evidence may not enable the ACSM CCRB EC to identify the particular individuals involved. In any such circumstances, the ACSM CCRB EC reserves the right to withhold the scores of all candidates, including candidates not directly implicated in the irregularity and, if necessary, to require all candidates to take an additional examination at a later date under conditions which will ensure the validity of all scores.

Anyone who has information or evidence that irregular behavior has occurred should submit a written, signed statement to the ACSM CCRB EC as described in the "Complaints" policy, detailing the incident with copies of any supporting evidence or documentation.

If the ACSM CCRB EC determines that allegations of irregular behavior are true, the organization may impose sanctions against the offending individual which may include temporary or permanent loss of eligibility for exams or certification, revocation of an existing certificate, suspension of certification, invalidation of scores, or other sanctions as deemed appropriate. Such sanctions also may include legal action against the offending individual.

The ACSM CCRB EC shall maintain a record of all appeals, take appropriate action regarding the appeal in a timely manner, and document the actions taken. Candidates or certificants who perceive a lack of due process may appeal to the ACSM CCRB EC (see Appendix A).

## **Exam Registration Audit**

All candidates who successfully complete an ACSM certification exam are subject to an audit to confirm their eligibility and/or the status of their CPR certification.

ACSM reserves the right to audit at least 10% of all exam candidates who received a passing score. Candidates who received a passing score on any ACSM certification exam in the previous month may be audited to verify that all eligibility requirements have been met (for example, official final degree transcript, CPR/AED/BLS/ACLS/First Aid). If contacted in this regard, candidates must provide requested within 30 days of receiving the request by ACSM.

ACSM reserves the right to revoke the credential of any individual who cannot verify their eligibility and/or their current CPR certification as part of the ACSM audit verification process. ACSM will contact the audited candidate by email; therefore, it is imperative that candidates keep their contact information updated with ACSM.



## **Appendix A**

## Appeals for Denied Eligibility

ACSM reserves the right to reject any application that does not meet the specified eligibility requirements. The request for reconsideration must be submitted in writing to the ACSM National Director of Certification. The request must demonstrate equivalence to the current eligibility requirements.

The national director of certification will review the request within 10 days. If the issue can be resolved at the staff level the National Director of Certification will decide and notify the CCRB of the result.

If an exam eligibility is rejected by the national director of certification, the candidate may request an eligibility review by the CCRB Executive Committee (EC). Within 30 days, the CCRB EC will appoint a Reconsideration Committee to review the request. The committee will review the request and provide a recommendation to the CCRB EC within 45 days. The decision made by the CCRB EC will be final. The candidate will be notified within 15 days of the CCRB EC's decision.

Submit all eligibility appeals for review via email, fax, or mail to:

ACSM Certification Department 6510 Telecom Dr., Suite 200 Indianapolis, IN 46278

Email: <a href="mailto:certification@ACSM.org">certification@ACSM.org</a>

Fax: (317)-634-7817

## **Appendix B**

## **Special Accommodations Request Form**

## **Request for Testing Accommodations**

The American College of Sports Medicine (ACSM) complies with the Americans with Disabilities Act of 1990 (ADA). To ensure equal opportunities for all qualified persons, ACSM will make reasonable testing accommodations for certification candidates when appropriate and consistent with such legal requirements. ACSM will consider requests for testing accommodations related to any ACSM Certification exams from certification candidates with a documented disability that substantially limits the candidate's sensory, manual, speaking or other functional skills, including a disability that impairs significantly the candidate's ability to arrive at, read or otherwise complete the examination. These accommodations can include additional time to complete the exam or use of approved auxiliary aids.

ACSM requires that each candidate requesting a testing accommodation complete and submit this form with the certification application. The information and any documentation that the candidate provides regarding his/her disability and the need for accommodation(s) will be treated as confidential.

NOTE: Candidates may take breaks taken at testing centers at any time during the exam; however, the exam timer will continue to run during breaks. Therefore, extended time should be considered for candidates who require frequent or extended breaks related to their disability.

NOTE: Accommodations cannot be added to an already-scheduled exam. Please do not schedule your exam until your accommodations are approved. If you have already scheduled your exam, please CANCEL it and follow the instructions after accommodations are approved.

Certification Candidate Information			
Candidate's Name: (First Middle Initial Last)			
ACSM ID:			
Home Address:			
City, State, Zip:			
Telephone Number:			
Email Address:			
Certification Past A	ccommodations	History	
Have you previously received test accommodations durin	g any of the following?	?	
Certification or Licensure Examinations	☐ Yes	□No	
Vocational Training or Higher Education	☐ Yes	□No	
Elementary or Secondary School	☐ Yes	□No	

NOTE: For each "YES" response above, please attach a detailed description of your accommodation history to this form, including but not limited to:

- · The disability related to the accommodation,
- · The accommodation provided,
- · The organization providing the accommodation,
- The name of the examination for which the accommodation was provided,
- The date the examination and accommodation were provided. Please indicate if the candidate took the exam multiple times but did not receive accommodations for all administrations of the exam.

Description of Disability			
Disability Related to the Accommodation Request:			
Date of Most Recent Professional Diagnosis:			
Diagnostic Methods Used:			
Diagnostic Results:			
Requested Accommodation(s)  Please list all accommodations you are requesting			
□1.5 x Exam Time	☐ Magnified Screen Text	☐ Reader	
□ 2.0 x Exam Time	☐ Separate Room	☐ Recorder	
☐ Enlarged Font ☐ Other: (please describe)			
Certification Exam Please check the certification exam you would like accommodations for			
□ ACSM Certified Personal Trainer □ ACSM Certified Group Exercise Instructor			
□ ACSM Certified Exercise Physiologist □ ACSM Certified Clinical Exercise Physiologist			

## **Appendix C**

## **Exam Content Outlines**

## **ACSM-GEI**

The ACSM-GEI® exam has a seat time of 165 minutes and consists of 115 items, of which 100 items are scored and 15 are non-scored. The percentages listed in the table below indicate the proportion of questions representing each performance domain. The performance domains are:

Performance Domains (2021)	Domain Weights
Class Design	30%
Leadership	25%
Instruction	30%
Professional Responsibilities	15%

The complete ACSM-GEI exam content outline can be found here.

## **ACSM-CPT**

The ACSM-CPT\* exam has a seat time of 150 minutes and consists of 135 items; of which 120 items are scored and 15 are non-scored. The percentages listed in the table below indicate the proportion of questions representing each performance domain.

Performance Domains (2021)	Domain Weights
Initial Client Consultation and Assessment	25%
Exercise Programming and Implementation	45%
Exercise Leadership and Client Education	20%
Legal and Professional Responsibilities	10%

The complete ACSM-CPT exam content outline can be found <u>here</u>.

#### **ACSM-EP**

The ACSM-EP° exam has a seat time of 210 minutes and consists of 140 items; of which 125 items are scored and 15 are non-scored. The percentages listed in the table below indicate the proportion of scored questions representing each performance domain.

Performance Domains (2021)	Domain Weights
Health and Fitness Assessment	35%
Exercise Prescription and Implementation	35%
Exercise Counseling and Behavior Modification	25%
Risk Management and Professional Responsibilities	5%

The complete ACSM-EP exam content outline can be found here.

## ACSM-CEP

The ACSM-CEP\* exam has a seat time of 210 minutes and consists of 115 items; of which 100 items are scored and 15 are non-scored. The percentages listed in the table below indicate the proportion of scored questions representing each performance domain.

Performance Domains (2021)	Domain Weights
Patient Assessment	20%
Exercise Testing	19%
<b>Exercise Prescription</b>	23%
Exercise Training and Leadership	23%
Education and Behavior Change	10%
Legal and Professional Responsibilities	5%

The complete ACSM-CEP exam content outline can be found here.

## **Appendix D**

## **CEP Content Requirements**

- 1. Clinical Exercise Testing and Prescription
  - i. Pre-exercise screening procedures
  - ii. Indications and contraindications for exercise testing
  - iii. Exercise testing procedures and protocols
  - iv. Interpretation of the exercise response
  - v. Exercise prescription for clinical diseases or conditions (e.g., cardiovascular, pulmonary, obesity/ metabolic, orthopedic/musculoskeletal, neoplastic, frailty, neuromuscular)
- 2. Advanced Exercise Physiology
  - i. Musculoskeletal system, structure and plasticity
  - ii. Cardiopulmonary structure, function and dynamics
  - iii. Nervous system and neuromuscular function
  - iv. Macronutrient metabolism, bioenergetics, and mitochondrial biogenesis
  - v. Endocrine and immune systems
  - vi. Integrated exercise responses
  - vii. Environmental exercise physiology
- 3. Clinical Exercise Physiology/Pathophysiology
  - i. Pathophysiology of common cardiovascular diseases, obstructive and restrictive pulmonary diseases, metabolic diseases, neoplastic, immunologic/ hematologic disorders and neuromuscular diseases
  - ii. ECG interpretation involving the recognition of the most common abnormalities
  - iii. Pharmacokinetics and pharmacodynamics of commonly prescribed drugs (e.g., antibiotics/ antivirals, anti-inflammatory drugs, pain medications, muscle relaxers, asthma medications, antihistamines, GI tract medications, hypertension and heart disease medications, antipsychotic medications, diabetes medication)

## **Appendix E**

#### **ACSM Certification Code of Ethics**

[APPROVED by the CCRB Executive Council, May 2005/APPROVED by the ACSM Board of Trustees, June 2005]

#### **PURPOSE**

This Code of Ethics is intended to aid all certified and registered American College of Sports Medicine Credentialed Professionals (ACSMCP) to establish and maintain a high level of ethical conduct, as defined by standards by which an ACSMCP may determine the appropriateness of his or her 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 ACMCPs, regardless of ACSM membership status (to include members and non-members). Any cases in violation of this Code will be referred to the **ACSM CCRB Executive Council and the CCRB Ethics subcommittee**, and if appropriate, the ACSM Committee on Ethics and Professional Conduct as well.

#### **PRINCIPLES and STANDARDS**

## Responsibility to the Public

- ACSMCPs shall be dedicated to providing competent and legally permissible services within the scope of the Knowledge and Skills (KSs) 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 health 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 him/ herself, either directly or indirectly, as anything other than an ACSMCP unless he/she holds other license/ certification that allows him/her to do so.
- ACSMCPs practice within the scope of their knowledge, skills, and abilities. ACSMCPs will not provide services that are limited by state law to provision by another health care 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 knowledge and skills.

## PRINCIPLES and STANDARDS FOR CANDIDATES OF THE CERTIFICATION EXAM

Candidates applying for a Credentialing examination must comply with all eligibility requirements and to the best of their abilities, accurately complete the application process. In addition, the candidate must refrain from any and all behavior that could be interpreted as "irregular" (please refer to the policy on irregular behavior).

## **Appendix F**

## **Public Disclosure of Affiliation Policy**

Any ACSM Certified Professional (ACSMCP) may disclose their affiliation with ACSM Credentialing in any context, oral or documented, provided it is currently accurate. In doing so, no ACSMCP may imply ACSM endorsement of whatever is associated in context with the disclosure, unless expressly authorized by the ACSM. Disclosure of affiliation in connection with a commercial venture may be made provided the disclosure is made in a professionally dignified manner, is not false, misleading or deceptive, and does not imply licensure or the attainment of specialty or diploma status.

ACSMCPs may list their affiliation with ACSM Credentialing on their business cards without prior authorization from ACSM. Institutions employing an ACSMCP may inform the public of an affiliation as a matter of public discourse or presentation.

## **Appendix G**

## **Privacy Policy**

AMERICAN COLLEGE OF SPORTS MEDICINE, INC. (ACSM) recognizes the importance of protecting the privacy of information provided by users of our website, certified individuals, event registrants, recipients of our email newsletters and all of our members. We created this policy with a fundamental respect for our users' right to privacy and to guide our relationships with our users. ACSM is committed to ensuring that your privacy is protected. We will only use the information that we collect about you lawfully. We also adhere to the principles relating to the obtaining and processing of Personal Data which are set out in the General Data Protection Regulation (GDPR) and are responsible for compliance with the data protection principles listed here. This privacy statement discloses the privacy practices for all products and services of ACSM. A current list of our membership categories, certification levels and events can be found at https://www.acsm.org/membership.

#### Consent

By consenting to this privacy notice you give us permission to process your personal data specifically for the purposes identified.

Consent is required for ACSM to process both types of personal data (administrative and marketing), but it must be explicitly given. If/where we ask you for sensitive personal data we will always tell you why and how the information will be used.

You may withdraw consent at any time by contacting <a href="mailto:membership@acsm.org">membership@acsm.org</a>, requesting a copy of the Data Subject Consent Withdrawal Form. This must be completed and submitted back to ACSM at the same email address listed above where it will be processed in line with our Withdrawal of Consent Procedure.

## Information Collection and Use

ACSM collects information from our website users, members and non-members. In this section of our privacy policy, we will describe the type of information we collect and how we use it to provide better services to our members.

## **Membership and Event Registration**

When applying for membership or event registration through our website, users are required to give their contact information (such as name, mailing address, email address and phone number). We also may collect demographic information (such as title, company information and areas of interest, etc.). For internal purposes, we use this information to communicate with members and provide requested services, and, for our website visitors, to provide a more personalized experience on our sites. We use aggregate demographic information about our audience to improve our service, for marketing purposes and/or industry reporting purposes.

For our services that require payment (such as membership dues, events, products and journals), we also collect credit card information (such as card holder name, credit card number, billing address, credit card security code and expiration date), which is used for billing purposes only, and is not otherwise shared.

#### Surveys

From time to time we invite users to provide information via surveys. Participation in these surveys is completely voluntary, and the user therefore has a choice whether to disclose requested contact information (such as name and mailing address) and demographic information (such as zip code or job title). In addition to other uses set forth in this policy, contact information collected in connection with surveys is used to monitor or improve the use and satisfaction of the site.

#### **Interactive Features**

At our site, we offer interactive and community features such as discussion forums found in the communities section of the "Members Only" page. Note that all personal information sent or posted via such features becomes public information for which we are not responsible. Discussion forums are regulated by the "Terms and Use" located on the communities page.

#### **Tell-A-Friend**

If users elect to use our referral service for informing a friend about our sites and services, we may ask them for the friend's name, job title and email address. ACSM will store and use this information to send the friend an invitation. This information may also be used to provide information about our company and related products and services. The friend may contact us as specified in the tell-a-friend message to request that no further communications be sent.

#### **Communications with Us**

We have features where users can submit information to us (such as our feedback forms or committee interest forms). Letters to the editor and similar submissions may be made public. Requests for service, support or information may be forwarded as needed to best respond to a specific request. We may retain emails and other information sent to us for our internal administrative purposes and to help us to serve customers better.

## Communications from Us: Service Updates, Special Offers

In order to best serve our members, we may send updates that contain important information about our sites and services. For example, we send new members a welcome message, and verify password and username for our password-protected sites. We may also communicate with a user to provide requested services and for account-related issues via email, phone or regular mail.

We offer our users the option to receive information about our organization, related products, services and special events. Users can choose not to receive these communications, as set forth in our Permission section below.

#### **Automatic Data Collection**

Our websites have features that automatically collect information from users, to deliver content specific to users' interests and to honor their preferences. This information assists us in creating sites that will serve the needs of our users.

We use "cookies," a piece of data stored on the user's hard drive containing information about the user. Cookies benefit the user by requiring login only once, thereby saving time while on our site. If users reject the cookies, they may be limited in the use of some areas of our site or the website display quality. Additionally, we may note some of the pages the user visits on our site through the use of pixel tags (also called clear gifs). The use of cookies and pixels enable us to track and target the interests of our users to enhance the experience on our sites.

Like most websites, this site uses Google Analytics (GA) to track user interaction. We use the data from GA to determine how many people are using our site, how people find and use our webpages, and to visualize user journeys through the website.

Although GA records data, such as your geographical location, device, internet browser and operating system, none of this information makes you personally identifiable to ACSM. Your computer's IP address is also recorded by GA and presents a potential way for you to be personally identified; however, Google does not grant ACSM access

to this information. We consider Google to be a third-party data processor.

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- Right to be forgotten in certain circumstances you can ask for the data we hold about you to be erased from our records.
- Right to restriction of processing where certain conditions apply to have a right to restrict the processing.
- Right of portability you have the right to have the data we hold about you transferred to another organization.
- Right to object you have the right to object to certain types of processing such as direct marketing.
- Right to object to automated processing, including profiling you also have the right to be subject to the legal effects of automated processing or profiling.
- In the event that ACSM refuses your request under rights of access, we will provide you with a reason as to why. You have the right to complain as outlined in clause 6 below.

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#### **Supervisory contact:**

Julie Stoelting
Vice President of HR and People Operations
<a href="mailto:istoelting@acsm.org">istoelting@acsm.org</a>

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## **Corporate Communications**

American College of Sports Medicine, Inc. 6510 Telecom Dr., Suite 200 Indianapolis, IN 46278 <a href="mailto:publicinfo@acsm.org">publicinfo@acsm.org</a> (317) 637-9200

## **Appendix H**

Non-disclosure Agreement and General Terms of Use for Exams Developed for the American College of Sports Medicine Committee on Certification and Registry Boards

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## Appendix I

## **Abbreviations**

ABI ankle/brachial pressure index ACC American College of Cardiology ACE-I angiotensin-converting enzyme inhibitors ACS Acute coronary syndrome ACSM American College of Sports Medicine ACSM-CEP Physiologist ACSM-CEP Physiologist ACSM-CEP ACSM Certified Personal Trainer ACSM-EP ACSM Certified Exercise Physiologist ACSM-GEI ACSM-GEI ACSM Certified Group Exercise Instructor ADL activities of daily living ADT androgen deprivation therapy AEDs automated external defibrillators AHA American Heart Association AHFS American Hospital Formulary Service AIDS acquired immunodeficiency syndrome AMI acute myocardial infarction AMS acute mountain sickness ARBs angiotensin II receptor blockers ART antiretroviral therapy AS ankylosing spondylitis ATP III Adult Treatment Panel III AV atrioventricular BIA bioelectrical impedance analysis BMD bone mineral density BMI body mass index BMT bone marrow transplantation BP blood pressure CABG(S) coronary artery bypass graft (surgery) CAD coronary artery disease CCB calcium channel blockers CDC Centers for Disease Control and Prevention CHF congestive heart failure CKD chronic kidney disease CM cardiomyopathy CNS central nervous system	AACVPR	American Association of Cardiovascular and Pulmonary Rehabilitation
ACE-I angiotensin-converting enzyme inhibitors ACS Acute coronary syndrome ACSM American College of Sports Medicine ACSM-CEP Physiologist ACSM-CPT ACSM Certified Clinical Exercise Physiologist ACSM-EP ACSM Certified Personal Trainer ACSM-EP ACSM Certified Fersonal Trainer ACSM-EP ACSM Certified Group Exercise Instructor ADL activities of daily living ADT androgen deprivation therapy AEDs automated external defibrillators AHA American Heart Association AHFS American Hospital Formulary Service AIDS acquired immunodeficiency syndrome AMI acute myocardial infarction AMS acute mountain sickness ARBs angiotensin II receptor blockers ART antiretroviral therapy AS ankylosing spondylitis ATP III Adult Treatment Panel III AV atrioventricular BIA bioelectrical impedance analysis BMD bone mineral density BMI body mass index BMT bone marrow transplantation BP blood pressure CABG(S) coronary artery bypass graft (surgery) CAD coronary artery disease CCB calcium channel blockers CCB calcium channel blockers CCB centers for Disease Control and Prevention CHF congestive heart failure CKD chronic kidney disease CM cardiomyopathy	ABI	ankle/brachial pressure index
ACS Acute coronary syndrome ACSM American College of Sports Medicine ACSM-CEP Physiologist ACSM-CPT ACSM Certified Clinical Exercise  ACSM-EP ACSM Certified Personal Trainer ACSM-EP ACSM Certified Exercise Physiologist ACSM-GEI ACSM Certified Group Exercise Instructor ADL activities of daily living ADT androgen deprivation therapy AEDs automated external defibrillators AHA American Heart Association AHFS American Hospital Formulary Service AIDS acquired immunodeficiency syndrome AMI acute myocardial infarction AMS acute mountain sickness ARBs angiotensin II receptor blockers ART antiretroviral therapy AS ankylosing spondylitis ATP III Adult Treatment Panel III AV atrioventricular BIA bioelectrical impedance analysis BMD bone mineral density BMI body mass index BMT bone marrow transplantation BP blood pressure CABG(S) coronary artery bypass graft (surgery) CAD coronary artery disease CCB calcium channel blockers CDC Centers for Disease Control and Prevention CHF congestive heart failure CKD chronic kidney disease CM cardiomyopathy	ACC	American College of Cardiology
ACSM American College of Sports Medicine  ACSM-CEP Physiologist  ACSM-CPT ACSM Certified Clinical Exercise  ACSM-EP ACSM Certified Personal Trainer  ACSM-EP ACSM Certified Exercise Physiologist  ACSM-GEI ACSM Certified Group Exercise Instructor  ADL activities of daily living  ADT androgen deprivation therapy  AEDs automated external defibrillators  AHA American Heart Association  AHFS American Hospital Formulary Service  AIDS acquired immunodeficiency syndrome  AMI acute myocardial infarction  AMS acute mountain sickness  ARBs angiotensin II receptor blockers  ART antiretroviral therapy  AS ankylosing spondylitis  ATP III Adult Treatment Panel III  AV atrioventricular  BIA bioelectrical impedance analysis  BMD bone mineral density  BMI body mass index  BMT bone marrow transplantation  BP blood pressure  CABG(S) coronary artery bypass graft (surgery)  CAD coronary artery disease  CCB calcium channel blockers  CDC Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	ACE-I	angiotensin-converting enzyme inhibitors
ACSM-CEP Physiologist  ACSM-CPT ACSM-CPT ACSM-CPT ACSM-CPT ACSM-CEP ACSM Certified Personal Trainer  ACSM-EP ACSM-CET ACSM-GEI ACSM-CEI AC	ACS	Acute coronary syndrome
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ACSM-EP ACSM Certified Exercise Physiologist  ACSM-GEI ACSM Certified Group Exercise Instructor  ADL activities of daily living  ADT androgen deprivation therapy  AEDs automated external defibrillators  AHA American Heart Association  AHFS American Hospital Formulary Service  AIDS acquired immunodeficiency syndrome  AMI acute myocardial infarction  AMS acute mountain sickness  ARBs angiotensin II receptor blockers  ART antiretroviral therapy  AS ankylosing spondylitis  ATP III Adult Treatment Panel III  AV atrioventricular  BIA bioelectrical impedance analysis  BMD bone mineral density  BMI body mass index  BMT bone marrow transplantation  BP blood pressure  CABG(S) coronary artery bypass graft (surgery)  CAD coronary artery disease  CCB calcium channel blockers  CDC Centers for Disease Control and  Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	,	ACSM Certified Clinical Exercise
ACSM-GEI ACSM Certified Group Exercise Instructor ADL activities of daily living ADT androgen deprivation therapy AEDS automated external defibrillators AHA American Heart Association AHFS American Hospital Formulary Service AIDS acquired immunodeficiency syndrome AMI acute myocardial infarction AMS acute mountain sickness ARBS angiotensin II receptor blockers ART antiretroviral therapy AS ankylosing spondylitis ATP III Adult Treatment Panel III AV atrioventricular BIA bioelectrical impedance analysis BMD bone mineral density BMI body mass index BMT bone marrow transplantation BP blood pressure CABG(S) coronary artery bypass graft (surgery) CAD coronary artery disease CCB calcium channel blockers CDC Centers for Disease Control and Prevention CHF congestive heart failure CKD chronic kidney disease CM cardiomyopathy	ACSM-CPT	ACSM Certified Personal Trainer
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AHFS American Hospital Formulary Service  AIDS acquired immunodeficiency syndrome  AMI acute myocardial infarction  AMS acute mountain sickness  ARBS angiotensin II receptor blockers  ART antiretroviral therapy  AS ankylosing spondylitis  ATP III Adult Treatment Panel III  AV atrioventricular  BIA bioelectrical impedance analysis  BMD bone mineral density  BMI body mass index  BMT bone marrow transplantation  BP blood pressure  CABG(S) coronary artery bypass graft (surgery)  CAD coronary artery disease  CCB calcium channel blockers  CDC Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	AEDs	automated external defibrillators
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BMT bone marrow transplantation  BP blood pressure  CABG(S) coronary artery bypass graft (surgery)  CAD coronary artery disease  CCB calcium channel blockers  CDC Centers for Disease Control and  Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	BMD	bone mineral density
BP blood pressure  CABG(S) coronary artery bypass graft (surgery)  CAD coronary artery disease  CCB calcium channel blockers  CDC Centers for Disease Control and  Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	ВМІ	body mass index
CABG(S) coronary artery bypass graft (surgery)  CAD coronary artery disease  CCB calcium channel blockers  CDC Centers for Disease Control and  Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	BMT	bone marrow transplantation
CAD coronary artery disease  CCB calcium channel blockers  CDC Centers for Disease Control and Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	ВР	blood pressure
CCB calcium channel blockers  CDC Centers for Disease Control and Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	CABG(S)	coronary artery bypass graft (surgery)
CDC Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	CAD	coronary artery disease
Prevention  CHF congestive heart failure  CKD chronic kidney disease  CM cardiomyopathy	CCB	calcium channel blockers
CKD chronic kidney disease CM cardiomyopathy		Centers for Disease Control and
CM cardiomyopathy	CHF	congestive heart failure
, , , , , , , , , , , , , , , , , , ,	CKD	chronic kidney disease
CNS central nervous system	CM	cardiomyopathy
	CNS	central nervous system

COPD	chronic obstructive pulmonary disease
СР	cerebral palsy
CPET	cardiopulmonary exercise test
CPR	cardiopulmonary resuscitation
CR	cardiac rehabilitation
CRF	cardiorespiratory fitness
CVD	cardiovascular disease
CWR	constant work rate
Db	body density
DBP	diastolic blood pressure
DBS	deep brain stimulation
DM	diabetes mellitus
DOMS	delayed onset muscle soreness
DS	Down syndrome
DVR	dynamic variable resistance
DXA	dual-energy X-ray absorptiometry
EAS	European Atherosclerosis Society
ECG (electrocardio	electrocardiogram ographic)
EDSS	Kurtzke Expanded Disability Status Scale
EE	energy expenditure
EI	energy intake
EIB	exercise-induced bronchoconstriction
ESRD	end-stage renal disease
ETT	exercise tolerance test
Ex R <sub>x</sub>	exercise prescription
FES-LCE	functional electrical stimulation-leg cycle ergometry
FEV <sub>1.0</sub>	forced expiratory volume in one second
FFBd	fat-free body density
FFM	fat-free mass
FITT	Frequency, Intensity, Time, Type
FM	fat mass
FN	false negative
FP	false positive
FPG	fasting plasma glucose
FRAX	Fracture Risk Algorithm

FRIEND	Fitness Registry and the Importance of Exercise National Database		
FVC	forced vital capacity		
GFR	glomerular filtration rate		
GOLD	Global Initiative for Chronic Obstructive Lung Disease		
GXT	graded exercise test		
HACE	high-altitude cerebral edema		
HAPE	high-altitude pulmonary edema		
HbA1C	glycolated hemoglobin		
НВМ	health belief model		
HDL-C	high-density lipoprotein cholesterol		
HFpEF fraction	heart failure with preserved ejection		
HFrEF fraction	heart failure with reduced ejection		
HIIT	high intensity interval training		
HIPAA	Health Insurance Portability and Accountability Act		
HIV	human immunodeficiency virus		
HMG-CoA	hydroxymethylglutaryl-coenzyme A		
HR	heart rate		
HR <sub>max</sub>	maximal heart rate		
HR <sub>peak</sub>	peak heart rate		
HRR	heart rate reserve		
HR <sub>rest</sub>	resting heart rate		
HSCT	hematopoietic stem cell transplantation		
ICD	implantable cardioverter defibrillator		
ID	intellectual disability		
IDF	International Diabetes Federation		
IFG	impaired fasting glucose		
IGT	impaired glucose tolerance		
IHD	ischemic heart disease		
IMT	inspiratory muscle training		
ISH	International Society of Hypertension		
IVCD	intraventricular conduction delay		
JTA	job task analysis		
KSs	knowledge and skills		
LABS Surgery	Longitudinal Assessment of Bariatric		
LBP	low back pain		
LDL-C	low-density lipoprotein cholesterol		
L-G-L	Lown-Ganong-Levine		
	<u> </u>		

LVAD	left ventricular assist device
LVEF	left ventricular ejection fraction
LVH	left ventricular hypertrophy
MAP	mean arterial pressure
MET	metabolic equivalent
Metsyn	metabolic syndrome
MI	myocardial infarction
MS	multiple sclerosis
MSI	musculoskeletal injury
MVC	maximal voluntary contraction
6-MWT	6-min walk test
NCEP	National Cholesterol Education Program
NFCI	nonfreezing cold injuries
NHANES	National Health and Nutrition Examination Survey
NHLBI	National Heart, Lung, and Blood Institute
NOTF	National Obesity Task Force
NSAIDs	nonsteroidal anti-inflammatory drugs
NYHA	New York Heart Association
OA	osteoarthritis
OGTT	oral glucose tolerance test
OUES	oxygen uptake efficiency slope
PR	pulmonary rehabilitation
PVC	premature ventricular
Q·	contraction cardiac output
PA	physical activity
PAD	peripheral artery disease
$P_aCO_2$	partial pressure of carbon dioxide
PAH	pulmonary arterial hypertension
$P_aO_2$	partial pressure of arterial oxygen
PAR-Q+	Physical Activity Readiness Questionnaire for Everyone
PCI	percutaneous coronary intervention
PD	Parkinson disease
PG	plasma glucose
PNF	proprioceptive neuromuscular facilitation
PR	pulmonary rehabilitation
PVC	premature ventricular contraction
Q	cardiac output
QTc	QT corrected for heart rate
RA	rheumatoid arthritis

RER	respiratory exchange ratio
RHR	resting heart rate
1-RM	one repetition maximum
ROM	range of motion
RPE	rating of perceived exertion
RVH	right ventricular hypertrophy
SaO <sub>2</sub>	percent saturation of arterial oxygen
SBP	systolic blood pressure
SCD	sudden cardiac death
SCI	spinal cord injury
SCT	social cognitive theory
SD	standard deviation
SDT	self-determination theory
SEE	standard error of the estimate
SEM	social ecological model
SIT	sprint interval training
SpO <sub>2</sub>	percent saturation of arterial oxygen
SPPB	Short Physical Performance Battery
T1DM	Type 1 diabetes mellitus
T2DM	Type 2 diabetes mellitus
TG	triglycerides

TN true negative  TP true positive  TPB theory of planned behavior  TTM transtheoretical model  VAT ventilatory-derived anaerobic threshold  VCO2 volume of carbon dioxide per minute  VE expired ventilation per minute  VF ventricular fibrillation  VO2 volume of oxygen consumed per minute  VO maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)  VO2 peak oxygen uptake  VO2 peak oxygen uptake  VO2 peak oxygen uptake  VO3 percentage of oxygen uptake reserve  VT ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio  W-P-W Wolff-Parkinson-White	THR	target heart rate
TPB theory of planned behavior  TTM transtheoretical model  VAT ventilatory-derived anaerobic threshold  VCO2 volume of carbon dioxide per minute  VE expired ventilation per minute  VF ventricular fibrillation  VO2 volume of oxygen consumed per minute  VO maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)  VO2 peak oxygen uptake  VO2R oxygen uptake reserve  VVO2R percentage of oxygen uptake reserve  VT ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio	TN	true negative
TTM transtheoretical model  VAT ventilatory-derived anaerobic threshold $\dot{V}CO_2$ volume of carbon dioxide per minute $\dot{V}E$ expired ventilation per minute  VF ventricular fibrillation $\dot{V}O_2$ volume of oxygen consumed per minute $\dot{V}O_2$ maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption) $\dot{V}O_2$ peak oxygen uptake $\dot{V}O_2R$ oxygen uptake reserve $\dot{V}O_2R$ percentage of oxygen uptake reserve  VT ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio	TP	true positive
VAT ventilatory-derived anaerobic threshold  VCO2 volume of carbon dioxide per minute  VE expired ventilation per minute  VF ventricular fibrillation  VO2 volume of oxygen consumed per minute  VO3 maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)  VO4 peak oxygen uptake  VO4 peak oxygen uptake  VO4 percentage of oxygen uptake reserve  VT ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio	TPB	theory of planned behavior
VCO2       volume of carbon dioxide per minute         VE       expired ventilation per minute         VF       ventricular fibrillation         VO2       volume of oxygen consumed per minute         VO2max       maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)         VO2max       peak oxygen uptake         VO2max       oxygen uptake         VO2max       percentage of oxygen uptake         VO2max       percentage of oxygen uptake reserve         VO2max       percentage of oxygen uptake reserve         WO2max       ventilatory threshold         WBGT       wet-bulb globe temperature         WCT       Wind Chill Temperature Index         WHR       waist-to-hip ratio	TTM	transtheoretical model
VE       expired ventilation per minute         VF       ventricular fibrillation         VO2       volume of oxygen consumed per minute         VO2max       maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)         VO2peak       peak oxygen uptake         VO2PR       oxygen uptake reserve         %VO2R       percentage of oxygen uptake reserve         VT       ventilatory threshold         WBGT       wet-bulb globe temperature         WCT       Wind Chill Temperature Index         WHR       waist-to-hip ratio	VAT	ventilatory-derived anaerobic threshold
VF ventricular fibrillation  VO2 volume of oxygen consumed per minute  VO2max maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)  VO2peak peak oxygen uptake  VO2R oxygen uptake reserve  VV ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio	VCO <sub>2</sub>	volume of carbon dioxide per minute
VO2       volume of oxygen consumed per minute         VO2max       maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)         VO2peak       peak oxygen uptake         VO2R       oxygen uptake reserve         %VO2R       percentage of oxygen uptake reserve         VT       ventilatory threshold         WBGT       wet-bulb globe temperature         WCT       Wind Chill Temperature Index         WHR       waist-to-hip ratio	VЕ	expired ventilation per minute
VO       maximal volume of oxygen consumed per minute (maximal oxygen uptake, maximal oxygen consumption)         VO       peak oxygen uptake         VO       peak oxygen uptake         VO       oxygen uptake reserve         %VO       percentage of oxygen uptake reserve         VT       ventilatory threshold         WBGT       wet-bulb globe temperature         WCT       Wind Chill Temperature Index         WHR       waist-to-hip ratio	VF	ventricular fibrillation
minute (maximal oxygen uptake, maximal oxygen consumption)  VO <sub>2peak</sub> peak oxygen uptake  VO <sub>2</sub> R oxygen uptake reserve  VT percentage of oxygen uptake reserve  VT ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio	VO <sub>2</sub>	volume of oxygen consumed per minute
<ul> <li>VO<sub>2</sub>R oxygen uptake reserve</li> <li>%VO<sub>2</sub>R percentage of oxygen uptake reserve</li> <li>VT ventilatory threshold</li> <li>WBGT wet-bulb globe temperature</li> <li>WCT Wind Chill Temperature Index</li> <li>WHR waist-to-hip ratio</li> </ul>	VО <sub>2max</sub>	minute (maximal oxygen uptake, maximal
<ul> <li>VO<sub>2</sub>R oxygen uptake reserve</li> <li>VO<sub>2</sub>R percentage of oxygen uptake reserve</li> <li>VT ventilatory threshold</li> <li>WBGT wet-bulb globe temperature</li> <li>WCT Wind Chill Temperature Index</li> <li>WHR waist-to-hip ratio</li> </ul>	VO <sub>2peak</sub>	peak oxygen uptake
VT ventilatory threshold  WBGT wet-bulb globe temperature  WCT Wind Chill Temperature Index  WHR waist-to-hip ratio		oxygen uptake reserve
WBGT wet-bulb globe temperature WCT Wind Chill Temperature Index WHR waist-to-hip ratio	%VO <sub>2</sub> R	percentage of oxygen uptake reserve
WCT Wind Chill Temperature Index WHR waist-to-hip ratio	VT	ventilatory threshold
WHR waist-to-hip ratio	WBGT	wet-bulb globe temperature
'	WCT	Wind Chill Temperature Index
W-P-W Wolff-Parkinson-White	WHR	waist-to-hip ratio
	W-P-W	Wolff-Parkinson-White

## Appendix J

## **ACSM Equation and Calculations**

## METABOLIC CALCUATIONS and METHODS for PRESCRIBING EXERCISE

## TABLE D.1

Metabolic Calculations for the Estimation of Gross Energy Expenditure ( $\dot{V}O_2$  [mL  $\cdot$  kg<sup>-1</sup>  $\cdot$  min<sup>-1</sup>]) during Common Physical Activities

Sum of Resting + Horizontal + Vertical/Resistance Components					
Mode	Resting component	Horizontal component	Vertical component/ resistance component	Limitations	
Walking	3.5	0.1 × speed <sup>a</sup>	1.8 × speed <sup>a</sup> × grade <sup>b</sup>	Most accurate for speeds of 1.9-3.7 mi $\cdot$ h <sup>-1</sup> (50-100 m $\cdot$ min <sup>-1</sup> )	
Running	3.5	0.2 × speed <sup>a</sup>	0.9 × speed <sup>a</sup> × grade <sup>b</sup>	Most accurate for speeds $>5 \text{ mi} \cdot \text{h}^{-1}$ (134 m · min <sup>-1</sup> )	
Stepping	3.5	0.2 × steps · min <sup>−1</sup>	$1.33 \times (1.8 \times \text{step height}^{c} \times \text{steps} \cdot \text{min}^{-1})$	Most accurate for stepping rates of 12-30 steps · min <sup>-1</sup>	
Leg cycling	3.5	3.5	(1.8 × work rate <sup>d</sup> )/body mass <sup>e</sup>	Most accurate for work rates of 300-1,200 kg · m · min <sup>-1</sup> (50-200 W)	
Arm cycling	3.5	_	(3 × work rate <sup>d</sup> )/body mass <sup>e</sup>	Most accurate for work rates between 150 and 750 kg · m · min <sup>-1</sup> (25-125 W)	

<sup>&</sup>lt;sup>a</sup>Speed in m ⋅ min<sup>-1</sup>.

Multiply by the following conversion factors:

b to kg: 0.454; in to cm: 2.54; ft to m: 0.3048; mi to km: 1.609; mi · h<sup>-1</sup> to m · min<sup>-1</sup>; 26.8; kg · m · min<sup>-1</sup> to W: 0.164; W to kg · m · min<sup>-1</sup>; 6.12;  $VO_{2max} \perp \cdot min^{-1}$  to kcal · min<sup>-1</sup>; 4.9;  $VO_2 MET$  to mL · kg<sup>-1</sup> · min<sup>-1</sup>; 3.5.

<sup>o</sup>Work rate in kilogram meters per minute (kg · m · min<sup>-1</sup>) is calculated as resistance (kg) × distance per revolution of flywheel × pedal

MET, metabolic equivalent;  $\dot{V}O_2$ , volume of oxygen consumed per unit of time;  $\dot{V}O_{2max}$ , maximal volume of oxygen consumed per unit time. Adapted from (1,6).

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 $<sup>^{</sup>b}$ Grade is grade percentage expressed in decimal format (e.g., 10% = 0.10).

<sup>&</sup>lt;sup>c</sup>Step height in m.

 $<sup>^{</sup>o}$ Work rate in kilogram meters per minute (kg  $\cdot$  m  $\cdot$  min $^{-1}$ ) is calculated as resistance (kg)  $\times$  distance per revolution of flywheel  $\times$  pedal frequency per minute. Note: Distance per revolution is 6 m for Monark leg ergometer, 3 m for the Tunturi and BodyGuard ergometers, and 2.4 m for Monark arm ergometer.

<sup>&</sup>lt;sup>e</sup>Body mass in kg.

## **Appendix K**

## **GETP 11th Ed. Highlights**

ACSM's Guidelines for Exercise Testing and Prescription (GETP) 11th edition was published in 2020. **The ACSM Certification exams will reflect changes in GETP beginning July 1, 2022**.

The significant revisions and additions from the 10th to 11th editions are outlined below. A high-level summary is also available online: <a href="https://www.acsm.org/docs/default-source/publications-files/acsm-getp11\_summary-of-significant-revisions.pdf?sfvrsn=26695e49">https://www.acsm.org/docs/default-source/publications-files/acsm-getp11\_summary-of-significant-revisions.pdf?sfvrsn=26695e49</a> 6.

Candidates must be familiar with the following:

- · 2018 Physical Activity Guidelines
- The HR max calculation that should be used for the examination prior to July 1, 2022 is 220-Age. On or after July 1, 2022, the HR max calculation will be 207 – (0.7 x age). Refer to Chapter 5 in 11th edition.
- · ACOG Guidelines 2019

#### **KEY FOR CANDIDATES**

BLUE	FYI
PURPLE	Substantial update

Chapter	GETP 11 Page #	GETP 10	GETP11	Comments
1	1		X	Definition of Physical Fitness has been modified from GETP10
2	47	Х		Obesity renamed BMI/waist girth; hypertension now blood pressure; Dyslipidemia now lipids, DM now blood glucose
2	50	X		Table 2.3 updated BP guidelines now included. AHA/ACC AND JNC guidelines both provided.
2	51	Х		Table 2.4 updated and significantly different; no total cholesterol desired values
3	103	Х		Table 3.15 added ROM in degrees at selected joints by Age & Sex
3	102	Х		Sit and reach removed. Updated information.
3	103-105	Х		New section on balance added
5	142	Χ		Back to FITT; secondary mention of VP
5	149	Х		HR max 220-Age no longer recommended. Use one of the alternatives provided.
5	150	X		New concept: 2 min of moderate exercise = 1 min of vigorous
6	167	Х		New 2018 PAGA information on youth PA intensity
6	172	Χ		5 classifications of low back pain added
6	181	Х		New information on mobility assessments in older adults
6	182	Χ		Table 6.4 New
6	184	X		New information added to FITT Table; Power training: 6–10 repetitions with high velocity
6	188	Х		Test classification change: If a submaximal exercise test is warranted, the test should be performed with physician supervision after the woman has been medically evaluated for contraindications to exercise
6	188	Х		New information added on aerobic exercise during pregnancy

Chapter	GETP 11 Page #	GETP 10	GETP 11	Comments
6	192	Χ		New subsection-Exercise Types to Consider
6	192	X		New subsection-Exercise Types to Avoid
6	193	X		Special Considerations Section revised
6	193	Х		New subsection-Exercise During Postpartum
8	235	Х		Flexibility FITT time recommendations have been changed
8	234	X		Exercise training considerations are almost all new (a few bullets are the same - adverse event threshold and RPE recommendations)
8	239	Χ		FITT aerobic intensity and time recommendations updated
8	239	Χ		FITT resistance time recommendations changed from 2 sets to 1-2 sets
8	240	Χ		3-7 MET/wk changed to 7+
8	255	Х		FITT table changes in Resistance training frequency from 2-3d/wk to at least 2d/wk
8	261	Χ		FITT resistance training frequency changed from 2-3 d/wk to at least 2 d/wk
8	262	X		Information on page 262-266 is all new - pulmonary hypertension, interstitial lung disease, cystic fibrosis, lung transplant, muscle fitness for lung disease
9	279-280			New information concerning HbA1c and aerobic and resistance training
9	280	Х		Minor changes to the FITT table: "Flexibility and Balance", "No more than 2 consecutive days without activity", "based on subjective experience of "moderate" to "very hard", "to improve strength", Balance exercises: light to moderate intensity", "Continuous activity or HIIT".
9	281	Х		Updated bullet point under "Exercise Training Considerations." During combined training, completing resistance training prior to aerobic training may lower the risk of post-exercise hypoglycemia in individuals with T1DM. HIIT training, combining both anaerobic and aerobic exercise, may have a similar effect.
9	283	Χ		Updated bullet point under "Special Considerations"
9	283	X		Updated bullet point under "Special Considerations." For those with diabetes, pre-exercise optimal blood glucose levels are between 90 and 250 mg/dL (5.0 and 13.9 mmol/L). The ADA provides guidelines on carbohydrate ingestion based upon pre-exercise blood glucose levels.
9	287	Х		Updated table; Under the FITT table, under "Resistance", "< 50% 1-RM to improve muscle endurance" was removed
9	288	Х		Updated recommendation. It is important to be familiar with both the ACC/AHA and JNC7 BP thresholds and classifications as these changes may result in slight variations in prevalence and control rates and/or influence patient education. See Table 2.3 for both sets of criteria.

Chapter	GETP 11 Page #	GETP 10	GETP 11	Comments
9	290	X		Updated information under "Exercise Prescription." Emerging research suggests that dynamic resistance exercise results in BP reductions equal to or greater in magnitude to those experienced following aerobic exercise (96). Therefore, the ExRx for individuals for hypertension no longer place an emphasis on aerobic exercise alone, but rather encourage a variety of multi-modal exercises that reflect personal preference. Individuals with hypertension are recommended to engage in aerobic or resistance exercise alone or aerobic and resistance exercise combined (i.e., concurrent exercise) on most, preferably all, days of the week to total 90 min to 150 min per week (96). In addition, neuromotor exercise should be performed ≥2–3 d·wk–1 at low to moderate intensity for ≥20-30 min per session and include exercise involving motor skills and/or functional body weight and flexibility exercise such as yoga, pilates, and tai chi (96).
10	318	Х		FITT table for Cancer has been updated to reflect 2018 guidelines
10	319	Х		Cancer specific exercise considerations provided, new section
11	379	Χ		Attention-deficit/Hyperactivity is new content; 379-382
11	382	Χ		Alzheimer's Disease is new content; 382-387
11	387	Χ		Anxiety and Depression is new content; 387-392
11	392	Χ		Autism Spectrum Disorder is new content; 392-396
11	398	X		A new gross motor classification system (Table 11.3) has replaced the CPISRA functional classification system (Table 11.4 in GETP10)
11	406	X		New information on strength, flexibility, balance and body composition testing
11	407	Χ		Detailed information on why those with ID have lower CRF
11	408	Χ		FITT - Aerobic frequency changed to ≥ 3 d/wk; Intensity changed to 40%-80% of VO2max instead of VO2R
11	408	X		FITT- Resistance intensity changed to 10-12 reps to begin and progression is not to 70%-80%
11	408	Χ		FITT - Flexibility is now "preferred daily"
11	408	Χ		Added HIIT and interval training information for ID
11	419	X		FITT aerobic frequency changes to 3-4 d/wk; intensity recommendations have significant changes
11	419	Χ		FITT resistance intensity and time recommendations changed
11	419	Χ		Neuromotor Recommendations added to FITT box
12	442	X		New Box 12.1. HIIT use caution with sedentary due to unpleasant affective responses
12	450	X		Added Dual Processing Theories
12	453	Χ		New Implementation Intentions
12	454	Χ		Added information about apps and wearable devices
12	455	Χ		New Affect Regulation section
12	462	Χ		Added section for individuals with mental illness