NSCA CERTIFICATION HANDBOOK
Effective July 1, 2014
NSCA Certification Handbook

About this Handbook
This handbook was developed to provide certification candidates and certificants with the information needed to earn and maintain certification through the NSCA. Certification candidates and certificants are expected to become familiar with and abide by the certification policies and requirements as set forth in this handbook. The procedures and instructions in this handbook are primarily intended for certification candidates and certificants in the U.S. Certification candidates and certificants outside of the U.S. should review the information in the International Candidates section.
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www.nsca.com • toll free 800-815-6826
fax 719-632-6367 • international 719-632-6722
INTRODUCTION
About the Association
The National Strength and Conditioning Association (NSCA) was founded in 1978 as the National Strength Coaches Association by a group of strength coaches who shared a desire to network, collaborate, and unify the profession. In 1979, NSCA was incorporated as a nonprofit 501(c)(3) charitable and educational organization. NSCA established the CSCS Agency in 1985, later known as NSCA Certification Commission, to develop and administer a certification program for strength and conditioning professionals. In 2008, NSCA Certification Commission responsibilities were integrated into NSCA under the direction of the Certification Committee. Today, NSCA has a membership of more than 26,000 exercise professionals and more than 40,000 individuals actively certified through one of four certification programs.

NSCA is widely regarded as the worldwide authority on strength and conditioning. NSCA’s mission is to support and disseminate research-based knowledge and its practical application to improve athletic performance and fitness. NSCA publishes two of the world’s premier journals in strength and conditioning: Strength and Conditioning Journal (SCJ), Journal of Strength and Conditioning Research (JSCR). These and other NSCA publications link what is being learned in the sport science research laboratories to what is being taught by fitness professionals, thereby bridging the gap between theory and practice.

Certifications Offered

- **Certified Strength and Conditioning Specialist® (CSCS®)**. The CSCS program was created in 1985 to recognize individuals who possess the knowledge and skills to design and implement safe and effective strength and conditioning programs for athletes in a team setting. Certified Strength and Conditioning Specialists (CSCSs) are professionals who apply scientific knowledge to train athletes for the primary goal of improving athletic performance. They conduct sport-specific testing sessions, design and implement safe and effective strength training and conditioning programs and provide guidance regarding nutrition and injury prevention. Recognizing that their area of expertise is separate and distinct, CSCSs consult with and refer athletes to other professionals when appropriate.

- **NSCA-Certified Personal Trainer® (NSCA-CPT®)**. As the fitness industry continued to grow, NSCA saw a need for a prestigious and credible personal training certification, and established the NSCA-CPT® program in 1993. NSCA-Certified Personal Trainers (NSCA-CPTs) are health/fitness professionals who, using an individualized approach, assess, motivate, educate and train clients regarding their health and fitness needs. Certified personal trainers design safe and effective exercise programs, provide the guidance to help clients achieve their personal health/fitness goals and respond appropriately in emergency situations. Recognizing their own area of expertise, personal trainers refer clients to other healthcare professionals when appropriate.

- **Certified Special Population Specialist™ (CSPS™)**. The CSPS program was created in 2012. Certified Special Population Specialists (CSPSs) are fitness professionals who, using an individualized approach, assess, motivate, educate, and train special population clients of all ages regarding their health and fitness needs, preventively, and in collaboration with healthcare professionals. Special populations include those with chronic and temporary health conditions. CSPSs design safe and effective exercise programs, provide the guidance to help clients achieve their personal health/fitness goals, and recognize and respond to emergency situations. Recognizing their own areas of expertise, CSPSs receive referrals from and refer clients to other healthcare providers as appropriate.

- **Tactical Strength and Conditioning Facilitator™ (TSAC-F™)**. Tactical Strength and Conditioning Facilitators (TSAC-Fs) apply scientific knowledge to physically train military, fire and rescue, law enforcement, protective services, and other emergency personnel to improve performance, promote wellness, and decrease injury risk. They conduct needs analyses and physical testing sessions, design and implement safe and effective strength training and conditioning programs, and provide general information regarding nutrition. Recognizing their area of expertise is separate and distinct, TSAC-Fs consult with and refer those they train to other professionals when appropriate.

Accreditation of NSCA Certifications
NSCA strongly believes in adhering to industry best practices and established accreditation standards in the administration of its certification programs. Both the CSCS and NSCA-CPT certification programs have earned accreditation by the National Commission for Certifying Agencies (NCCA). CSCS earned NCCA accreditation in 1993, and was the first nationally accredited strength
training and conditioning certification program. In 1996, the NSCA-CPT became the first certified personal trainer program accredited by NCCA. Through the accreditation process, NSCA has demonstrated that the CSCS and NSCA-CPT programs meet or exceed NCCA Standards. NSCA is currently in the process of earning NCCA accreditation for the newly created CSPS and TSAC-F programs. For more information about NCCA accreditation please visit: www.credentialingexcellence.org/NCCA.

To qualify for an NSCA certification, candidates must meet all of the eligibility requirements for the certification program. NSCA’s four certification programs have different eligibility requirements. Additionally, all candidates and certificants must abide by the NSCA Code of Conduct for Certified Individuals (Appendix E).
Eligibility Requirements

**CSCS**
- Bachelor’s degree or higher granted by an accredited institution, or terminal degree in Physical Therapy or Chiropractic Medicine
- Basic Life Support (BLS), or equivalent certification
- Passing score on the CSCS Scientific Foundations Exam
- Passing score on the CSCS Practical/Applied Exam

**NSCA-CPT**
- At least 18 years old
- High school diploma or equivalent
- Basic Life Support (BLS), or equivalent certification
- Passing score on the NSCA-CPT Exam

**CSPS**
- Current NSCA certification (i.e., CSCS, NSCA-CPT, or TSAC-F)
- Bachelor’s degree or higher granted by an accredited institution in Exercise Science (or a related field), or terminal degree in Physical Therapy or Chiropractic Medicine
- Advanced Cardiovascular Life Support (ACLS), or equivalent certification
- Practical experience coaching/training individuals from special populations (250 hours)
- Passing score on the CSPS Exam

**TSAC-F**
- At least 18 years of age
- High school diploma, or equivalent
- Basic Life Support (BLS), or equivalent certification
- Passing score on the TSAC-F Exam

Candidates must meet the age requirement, if applicable, prior to registering for a certification exam. Other requirements must be met within one year of receiving a passing exam score. For example, CSCS and CSPS candidates who have senior standing may sit for the exams.

Acceptable Accreditation of Colleges and Universities

Only degrees granted by accredited colleges and universities can be used to satisfy the degree requirements for the CSCS and CSPS programs. NSCA recognizes the following accrediting institutions for U.S. colleges and universities: Middle State Association, New England Association, North Central Association, Northwest Commission on Colleges and Universities, Southern Association, and Western Association. Colleges and universities outside the U.S. must be recognized by the Ministry of Education of the country in which the institution is located.

Exercise Science-Related Fields

NSCA recognizes the following fields of study as relating to exercise science for the purpose of fulfilling the degree requirement for CSPS: Athletic Training, Biology, Biomechanics, Chiropractic, Community Health, Exercise Physiology, Exercise Science, Health Science, Human Movement Science, Kinesiology, Medicine (e.g., MD, DO), Nursing, Nutrition, Physical Education, Physical Therapy, and Sport Science.

Acceptable BLS and ACLS Certifications

Basic Life Support (BLS) certification ensures that professionals are able to recognize and respond to cardiopulmonary emergencies in adults, including in the application of CPR and the use of Automated External Defibrillators (AEDs). Advanced Cardiovascular Life Support (ACLS) certification ensures that professionals are able to recognize and respond to cardiopulmonary emergencies until more advanced medical personnel can take over. ACLS certifications typically cover primary assessment, breathing barrier and bag-valve-masks (BVMs) ventilation, conscious/unconscious choking, single/multiple person CPR, AED, and pharmacological interventions. Acceptable BLS and ACLS certifications must include a hands-on skills performance assessment.

Discipline Policy and Certification Appeals

The NSCA Certification Program Disciplinary Policy and Procedures (Appendix F) were established as a means to enforce the Code of Ethics (Appendix E), thereby protecting the public and integrity of NSCA certification programs. Consistent with the obligation of candidates and certificants in regards to Principle 13 of the Code of Ethics,
the Disciplinary Policy and Procedures provide a formal process for submitting complaints of unethical behavior to NSCA for consideration and investigation.

Any action taken by the NSCA Certification Committee affecting the status of a certified individual may be appealed. Appeals must be in writing and received within 90 days after receipt of such notice.
Exam registration is a simple five-step process: (1) review the exam descriptions and eligibility requirements; (2) select a certification of best fit; (3) select an exam format; (4) submit a completed registration form; and (5) submit eligibility verification documents. The exam registration process is not considered complete until all steps are met.

**Available Exam Formats**
NSCA offers computer-based testing (CBT) and paper and pencil (P/P) exam formats. Content and structure of the exams are equivalent. The major differences between formats are: dates/locations, time frame of releasing exam results, and initial and retake exam fees.

**Completing the Registration Form**
Candidates are encouraged to apply online for NSCA certification exams at www.nsca.com. A paper application is also available for download. Candidates will receive a confirmation email which will include their assigned customer ID number. Candidates are notified by email once their registration forms have been processed, typically within two (2) business days.

**Online**
1. Navigate to www.nsca.com
2. Log in using your NSCA username and password, or create a new account
3. Click on “Certification” on the top navigation bar
4. Click on the “Register” link underneath the desired certification
5. Verify profile information (name must match the primary and secondary forms of ID)
6. Follow on-screen prompts
7. Select “exam type”
8. Select “exam format”
9. Affirm eligibility requirements
10. Request special accommodations (if applicable)
11. Affirm reading/understanding the Administrative Policies
12. Download the Certification Handbook
13. Proceed to checkout
14. Submit eligibility verification documentation to NSCA (see Eligibility Documentation)

**Paper**
1. Navigate to www.nsca.com
2. Click on “Certification” on the top navigation bar
3. Download the Exam Registration form
4. Complete the application form (name must match the primary and secondary forms of ID)
5. Review the Administrative Policies
6. Submit the following to NSCA via mail, email, or fax
   a. Completed registration/affirmation form
   b. Special accommodations (if applicable)
   c. Payment information
7. Submit required eligibility verification to NSCA

**Affirmation**
NSCA exam candidates are required to complete and submit an affirmation on the registration form. Affirmations include, but are not limited to, the following:

- Submitted registration information found to be false will result in a revoked certification
- NSCA exam items, certification names, acronyms, and logos are protected under U.S. copyright law
- Those who copy and/or distribute proprietary NSCA information will forfeit their registration fees and have their certification(s) revoked
- Certificants must comply with recertification policies to retain a certification(s)
- Certificants read and understand the Transfer, Cancellation, and Refund policies

The complete Affirmation can be found in Appendix D.
Special Accommodations
NSCA and its test administrator, AMP, comply with the Americans with Disabilities Act. Candidates may request special accommodations if they have a medical condition that will prevent them from taking the exam as it is typically administered. Language accommodations are not considered a special accommodation.

Request for special accommodations must be made at the time of registration and submitted at least 45 calendar days before an exam. Candidates may be asked to provide additional information and given a specified response deadline if NSCA or AMP determines that the provided information is inadequate. NSCA will deny the request for accommodations if the special accommodations information is not received by the above described deadlines. Special Accommodations Form is available in the Appendix B, online at www.nsca.com, or by contacting the NSCA office at exams@nsca.com or 719-632-6722 ext. 201.

Candidates will receive notification from AMP of the accommodations that they will receive prior to the exam.

Eligibility Documentation
Candidates must submit their eligibility documentation to complete the application process. Eligibility requirements can be found in Certification Eligibility. Exam results expire if the application process is not completed within one (1) year of exam date.

It is recommended that all mailed documentation be sent in a form that is traceable (e.g., certified USPS, UPS, FedEx). Candidates should retain the tracking information in case a proof of mailing or receipt is needed. Any and all documentation sent to NSCA will not be returned.

NSCA Certification
1885 Bob Johnson Drive
Colorado Springs, CO 80906
USA

Academic Transcripts (CSCS and CSPS only)
Candidates must submit an original, official transcript from their college/university when taking the CSCS or CSPS exam for the first time. Official transcripts are required to be sent directly from the registrar’s office. Transcripts must confirm that the degree was conferred. Transcripts must be in an envelope with the registrar’s stamp placed across the envelope flap. If candidates mail the transcript, the registrar’s seal must remain intact.

NSCA accepts official electronic transcripts (e-transcripts) that are transferred using a secure document transfer program (e.g., escrip-safe, eDocs). The documents should be sent to exams@nsca.com.

Transcripts with the following are not acceptable:

- Student copy marked “student copy,” “issued to student,” or other similar language
- Photocopy
- Letter of degree status/verification
- Fax of the transcript

BLS/ACLS Certifications
Scanned, photocopied, and fax copies of the BLS and ACLS certifications are acceptable. Front and back copies of the document are required.

Mail
NSCA Certification
1885 Bob Johnson Drive
Colorado Springs, CO 80906
USA

Email
exams@nsca.com

Fax
719-632-6367

Practical Experience (CSPS only)
A Practical Experience Form must be completed and submitted as part of the CSPS application process. The form can be found in Appendix C. Practical Experience Forms are subject to a random audit within one (1) year of registration.
**Exam Fees**

**Computer-Based Exam Fees**

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<th>NSCA Student and Professional Members</th>
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<td></td>
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<td>$310</td>
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<td>Initial (Both Exams)</td>
<td>$260</td>
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<td>Retake Both Exams</td>
<td>$215</td>
<td>$350</td>
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<td>NSCA-CPT</td>
<td>Initial</td>
<td>$285</td>
<td>$420</td>
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<td>Retake</td>
<td>$235</td>
<td>$370</td>
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<tr>
<td>CSPS</td>
<td>Initial</td>
<td>$300</td>
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<td>Retake</td>
<td>$250</td>
<td>$385</td>
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<td>TSAC-F</td>
<td>Initial</td>
<td>$285</td>
<td>$420</td>
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<tr>
<td></td>
<td>Retake</td>
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<td>$370</td>
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**Paper and Pencil Exam Fees**

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<th>Non-Members</th>
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<td>EARLY REGISTRATION DEADLINE REGISTRATION CUTOFF EARLY REGISTRATION DEADLINE REGISTRATION CUTOFF</td>
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<tr>
<td>CSCS</td>
<td>Initial (Both Exams)</td>
<td>$260 $295</td>
<td>$395 $430</td>
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<td>Retake Both Exams</td>
<td>$210 $245</td>
<td>$345 $380</td>
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<td>Retake One Exam</td>
<td>$165 $200</td>
<td>$300 $335</td>
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<tr>
<td>NSCA-CPT</td>
<td>Initial</td>
<td>$235 $270</td>
<td>$370 $405</td>
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<td></td>
<td>Retake</td>
<td>$185 $220</td>
<td>$320 $355</td>
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<tr>
<td>CSPS</td>
<td>Initial</td>
<td>$250 $285</td>
<td>$385 $420</td>
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<td>$200 $235</td>
<td>$335 $370</td>
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<tr>
<td>TSAC-F</td>
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<td>$235 $270</td>
<td>$370 $405</td>
</tr>
<tr>
<td></td>
<td>Retake</td>
<td>$185 $220</td>
<td>$320 $355</td>
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**Scheduling an Appointment for Computer-Based Exams**

Exams are generally held Monday through Friday during normal business hours, and exclude holidays. Saturday appointments are offered at select testing centers.

After completing a registration, candidates will receive a confirmation email from the testing administrator, AMP, within five (5) business days. This confirmation notice will contain scheduling instructions. Exams may be scheduled at a minimum of two (2) business days in advance.

The following scheduling methods are available:

1. **Online**: Online registration scheduling at www.goamp.com.

OR

2. **Telephone**: Customer service representatives may be reached toll-free at (888) 519-9901 or +1 (913) 895-4600.

**AMP hours of operation**

Monday – Thursday | 7:00am to 9:00pm (CST)
Friday | 7:00am to 7:00pm (CST)
Saturday | 8:30am to 5:00pm (CST)

Candidates will receive a confirmation email with the location, date, and time. The candidate may only take the exam at the scheduled time slot. Changes in exam type cannot be made at the assessment center. Unscheduled appointments (walk-ins) are not accepted.

**Computer-Based Exam Locations**

Exams are administered at approximately 200 AMP Assessment Centers distributed throughout the United States. Assessment centers are typically located in H&R Block offices. Assessment center locations, detailed maps, and directions can be found at http://online.goamp.com/CandidateHome/displayTCList.aspx?pExamID=20881.
Exam Authorization Period
Candidates registered for computer-based exams have 120 days from the registration date to sit for their exam. Candidates who are unable to take the exam within the 120-day period must withdraw or extend their registration to avoid forfeit their registration fees. A completed registration and exam fee are required to reschedule for the exam.

Scheduling an Appointment for Paper and Pencil Exams
Paper and pencil exams are offered at predetermined locations and dates. Testing locations may change depending on space, availability, and/or conditions of the facility.

Registrations must be received or postmarked before midnight of the registration cutoff date. Once registration for an exam has closed, no additional registrations will be accepted. The P/P exam schedule can be found at www.nsca.com.

Official confirmation notices are mailed approximately three (3) weeks after the registration deadline. The confirmation notice includes the location and date of an exam. Candidates will receive a test center admission letter approximately 1-2 weeks prior to the exam date. This letter will identify the exact time and address where candidates should report for the exam. The admission letter serves as authorization to sit for the exam. Candidates should notify NSCA immediately if there are any errors.

NOTE: Candidates who registered for the CSCS will be sent an admission letter for each exam (Practical/Applied and Scientific Foundations). The letters may look similar, however the reporting times will be different.

Changes to Contact Information
Name
Candidates must contact NSCA if they have a name change. NSCA may request supporting documentation such as court documents or a marriage certificate.

Address
The address provided on a candidate’s registration will be used for mailing the exam confirmation notice, admission letter(s), and exam results. If candidates have a change of address, they should notify NSCA no later than four (4) weeks prior to the exam date. If a candidate moves after this time, he or she should leave a forwarding address at the post office so that the admission letter(s) and exam results will be sent to the new address. Candidates can update their address and other information from within their NSCA Account at www.nsca.com.

Registration Withdrawal and Refunds
Candidates that are denied eligibility or fail to fulfill one or more eligibility requirements will not receive a refund of their registration fee. If a candidate has any questions regarding their eligibility, they should contact NSCA toll free at 800-815-6826, internationally at +1-719-632-6722, or exams@nsca.com before registering for an exam.

Computer-Based Exams
Refunds are not granted for candidates who withdraw or cancel their CBT registrations.

Paper and Pencil Exams
Requests for P/P exam refunds must be submitted in writing. NSCA provides a 50 percent refund when the written notice of cancellation is received at least seven (7) business days before the scheduled exam date. No refunds will be made after that date.

NSCA retains the right to cancel an exam appointment if fewer than 15 candidates are scheduled. Those affected will be notified no later than four (4) weeks after the registration cutoff date and offered the opportunity to transfer to a different date/site at no additional cost. NSCA is not responsible for expenses incurred by a candidate due to a cancelled exam (e.g., airfare, hotel).

Cancelling, Rescheduling, or Transferring an Exam Appointment
Cancellation, reschedule and transfer requests must be submitted at least seven (7) business days prior to a scheduled examination. Candidates are strongly encouraged to submit requests online in order to expedite the process. A paper form is available upon request. Transfers and rescheduling may be limited by availability and will incur fees. Candidates cannot transfer to an exam date if the registration deadline has passed. Candidates scheduled for a CBT exam may reschedule or extend the 120-day eligibility period once per registration. Candidates who fail to take the exam during the eligibility period forfeit their registration fees. There is no limit on the number of exam transfers for candidates scheduled for P/P exams.

Reschedule and Transfer Fees
• Reschedule a P/P or CBT exam = $100
• Switch exam format (e.g., P/P to CBT) = $150
• Switch certification program (e.g., CSCS to NSCA-CPT) = $125

• 120-day authorization extension for computer-based exams = $100 (only available within the 120-day authorization window)

• Transfer fees are non-refundable

**Late Arrival and No-Show**

**Late Arrival**
Candidates who arrive for the exam more than 15 minutes late will not be permitted to test and will forfeit the exam registration fees. Please review the admission letter(s) as reporting times may vary.

**No-Shows**
Candidates who do not arrive to take the exam, and who do not cancel or transfer their registration, will forfeit the registration fee. Should they wish to take the exam at a later date, they would need to register again and provide the full registration fee.

**Inclement Weather, Power Failure, or Emergency**
In the event of inclement weather or unforeseen emergencies on the day of an exam, AMP will determine whether circumstances warrant the cancellation, and subsequent rescheduling of an exam. Candidates may contact AMP’s Weather Hotline at 913-495-4418 (24 hours/day) prior to the exam to determine if AMP has been advised that any assessment centers are closed.

Typically, the exam is NOT rescheduled if the assessment center personnel are able to open the assessment center. If power to an assessment center is interrupted temporarily during an administration, AMP will restart the exam from where it left off so that candidates may continue the exam.

Every attempt is made to administer the exam as scheduled; however, should an exam be cancelled at an assessment center, all scheduled candidates will receive information about rescheduling procedures.
ABOUT THE EXAMS
The methods used to develop NSCA certification exams adhere to the procedures recommended in the Standards for Educational and Psychological Tests (APA, NCME, AERA; 1999) and other relevant industry standards, including the Principles for the Validation and Use of Personnel Selection Procedures (SIOP, 2003) and Standards for the Accreditation of Certification Programs (NCCA, 2007). NSCA certification exams measure a candidate’s knowledge, skills, and abilities (KSAs) compared to a standard—a predetermined level of competence—established by industry experts. Identifying the appropriate KSAs, writing exam items, and establishing the standard are all critical parts of the exam development process that ensure valid decisions can be made based on exam results.

Job Analysis
NSCA performs a job analysis approximately every five (5) years for each certification program to identify the critical KSAs needed to perform a job safely and effectively. The process is guided by a Job Analysis Advisory Committee (JAAC), composed of industry experts. The JAAC develops KSA surveys that are sent to a large, representative sample of certificants. The survey data is then analyzed and presented to the JAAC, who uses the data to guide the creation of a detailed content outline (DCO) for the certification exam.

Item Writing
NSCA certification exams are developed by industry experts serving on Exam Development Committees (EDCs). EDC members are selected based on their expertise as it relates to the DCOs, and are trained in item writing and reviewing by experts in testing and measurement. Before an item can be used on an exam, it is subjected to EDC review and is pre-tested. Pre-testing allows test developers to gather statistical information about new items for evaluation purposes without affecting candidate scores. Pre-test items are unscored items that appear on exam forms interspersed among scored items. Statistical information gathered from pre-test items is analyzed to determine if the items function properly and are ready for use as scored items.

Standard Setting
NSCA certification exams are designed to differentiate between candidates who meet a standard of competence and candidates who do not. The standard for an exam (also called the cut-score or passing score) is determined by the EDC through the use of a modified Angoff methodology. This accepted method requires EDC members to evaluate individual exam items and estimate the proportion of minimally competent candidates expected to answer correctly. These estimates are statistically analyzed for consistency and then aggregated to arrive at the standard.

Exam Content Outlines
Each certification exam has a detailed content outline (DCO) that organizes KSAs into major domains and subcategories. Below are summaries of the exam content outlines. The full DCOs are presented in Appendices H through K. Some tasks in a fitness profession simply involve recalling facts or applying specific information, whereas other tasks require a complete evaluation of a situation. Thus, NSCA exams contain items of varying levels of complexity.

CSCS
The CSCS Exam consists of two exams (sections):
1. Scientific Foundations
2. Practical/Applied

The first exam contains 80 scored and 15 non-scored multiple-choice items allocated across two (2) domains, and the second exam contains 110 scored and 15 non-scored multiple-choice items allocated across four (4) domains.

Scientific Foundations
The Scientific Foundations exam, which is 1.5 hours in length, consists of 80 scored multiple-choice questions and 15 non-scored multiple-choice questions designed to assess a candidate’s knowledge in the areas of exercise sciences (59 scored questions on anatomy, exercise physiology, biomechanics, etc.) and nutrition (21 scored questions). The full DCO is presented in Appendix H.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Percent of Exam Section</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Science</td>
<td>74%</td>
<td>59</td>
</tr>
<tr>
<td>Nutrition</td>
<td>26%</td>
<td>21</td>
</tr>
<tr>
<td>Non-scored Questions</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>95</strong></td>
</tr>
</tbody>
</table>

Length of exam section 1.5 hours

Practical/Applied
The Practical/Applied exam, which is 2.5 hours in length, consists of 110 scored multiple-choice questions and 15 non-scored multiple-choice questions pertaining to program design, exercise techniques, testing and evaluation and organization/administration. There are 30-40 video
and/or image items that assess competencies in exercise techniques, functional anatomy, and testing procedures. The full DCO is presented in Appendix H.

<table>
<thead>
<tr>
<th>Section and Domain</th>
<th>Percent of Exam Section</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Technique</td>
<td>35%</td>
<td>38</td>
</tr>
<tr>
<td>Program Design</td>
<td>35%</td>
<td>39</td>
</tr>
<tr>
<td>Organization and Administration</td>
<td>12%</td>
<td>13</td>
</tr>
<tr>
<td>Testing and Evaluation</td>
<td>18%</td>
<td>20</td>
</tr>
<tr>
<td>Non-scored Questions</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>125</td>
</tr>
</tbody>
</table>

**Length of Exam Section**

**2.5 hours**

**NSCA-CPT**

NSCA-CPT is a 3-hour examination that consists of 140 scored and 15 non-scored multiple-choice items. There are 25-35 video and/or image items that assess competencies in exercise techniques, functional anatomy, and testing procedures. The four (4) domains are as follows:

1. Client Consultation/Fitness Assessment Section
2. Program Planning Section
3. Exercise Techniques Section
4. Safety/Emergency Issues Section

The full DCO is presented in Appendix I.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Percent of Exam Section</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client Consultation/Assessment</td>
<td>25%</td>
<td>35</td>
</tr>
<tr>
<td>Program Planning</td>
<td>31%</td>
<td>43</td>
</tr>
<tr>
<td>Techniques of Exercise</td>
<td>31%</td>
<td>43</td>
</tr>
<tr>
<td>Safety, Emergency Procedures and Legal Issues</td>
<td>13%</td>
<td>19</td>
</tr>
<tr>
<td>Non-Scored Questions</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>155</td>
</tr>
</tbody>
</table>

**Length of Exam**

**2.5 hours**

**CSPS**

CSPS is a 2.5-hour examination consists of 100 scored and 10 non-scored multiple-choice items allocated across four (4) domains:

1. Basic Pathophysiology and Science of Health Status, Condition, Disorder, or Disease
2. Client Consultation
3. Program Planning
4. Safety, Emergency Procedures and Legal Issues

The full DCO is presented in Appendix J.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Percent of Exam Section</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Pathophysiology and Science of Health Status, Condition, Disorder, or Disease</td>
<td>40%</td>
<td>40</td>
</tr>
<tr>
<td>Client Consultation</td>
<td>19%</td>
<td>19</td>
</tr>
<tr>
<td>Program Planning</td>
<td>31%</td>
<td>31</td>
</tr>
<tr>
<td>Safety, Emergency Procedures, and Legal Issues</td>
<td>10%</td>
<td>10</td>
</tr>
<tr>
<td>Non-Scored Questions</td>
<td>--</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>110</td>
</tr>
</tbody>
</table>

**Length of exam**

**2.5 hours**

**TSAC-F**

TSAC-F is a 3-hour examination that consists of 130 scored and 20 non-scored multiple-choice items allocated across five (5) domains:

1. Exercise Sciences
2. Nutrition
3. Exercise Technique
4. Program Design
5. Organization, Administration, Testing, Evaluation

The full DCO is presented in Appendix K.
### Exam Preparation

It is difficult to recommend a single best approach for preparing because of the diversity of backgrounds of those who take NSCA exams. Generally, it takes 3-9 months of self-study, but the time frame can vary depending on a candidate’s academic background and exercise experience.

Candidates with an academic background in the Exercise Sciences, and experience in exercise technique and program design have an ideal foundation for NSCA exams. Those who lack a foundation in Kinesiology, Anatomy & Physiology, Nutrition may benefit from taking an courses from a local college or university. Those who lack experience in exercise technique and/or program design may benefit from internship/mentorship programs or working with an experienced local fitness professional.

### Candidates with an Exercise Science-Related Academic Background

1. Take a practice exam
2. Use the practice exam scores to identify areas of needed improvement
3. Consult the Exam Content Description booklet to identify complexity of weak KSA(s)
4. Review NSCA recommended textbook(s) and, if needed, other exam preparation materials
5. Take a second practice exam to reassess KSAs
6. Decide if further study is needed; if not, register for the exam

This exam prep strategy focuses on weak content areas, rather than reviewing all exercise science-related concepts.

### Candidates without an Exercise Science-Related Academic Background

1. Consult the Exam Content Description to understand what KSAs may be asked on the exam and the degree of complexity
2. Review NSCA recommended textbook(s) and, if needed, other exam preparation materials
3. Take a practice exam
4. Use the practice exam scores to identify areas of needed improvement
5. Review content domains as needed
6. Take a second practice exam to reassess KSAs
7. Decide if further study is needed; if not, register for the exam

This exam prep strategy focuses on gaining foundational knowledge of exercise science-related concepts, assessing what was retained, and then refocusing on areas of weakness.

### General Study Tips

1. First and foremost, understand major concepts and how they fit together
2. Details are important, but don’t try to memorize everything
3. Have a solid foundation of normative data. In other words, do you know how separate “good” from “bad”, or “normal” from “unhealthy”
4. Know how concepts affect one another. For example, if you change one variable (e.g., add plyometrics to training) this (or these) will be affected (e.g., muscle physiology, maximal jump height)

The ideas presented here are merely suggestions to assist exam candidates in the studying process. They should not be considered as the only methods to prepare for the exam. While understanding the information presented in the preparation materials should certainly increase the likelihood of passing the exam, it does not guarantee a successful performance. It is ultimately the candidate’s academic, experiential, and test-taking abilities that will dictate their likelihood of success on the exam. NSCA exam items are developed from a variety of resources that include NSCA suggested exam prep materials and current peer-reviewed literature.

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<table>
<thead>
<tr>
<th>Domain</th>
<th>Percent of Exam</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Sciences</td>
<td>20%</td>
<td>26</td>
</tr>
<tr>
<td>Nutrition</td>
<td>10%</td>
<td>13</td>
</tr>
<tr>
<td>Exercise Technique</td>
<td>20%</td>
<td>26</td>
</tr>
<tr>
<td>Program Design</td>
<td>35%</td>
<td>46</td>
</tr>
<tr>
<td>Organization, Administration, Testing, Evaluation</td>
<td>15%</td>
<td>19</td>
</tr>
<tr>
<td>Non-scored Questions</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

**Length of exam**: 3 hours
Exam Day
On the day of the exam appointment, candidates must report to the assessment center no later than the scheduled testing time. Signs indicating AMP Assessment Center check-in will be posted in the H&R Block office. CBT candidates who arrive more than 15 minutes after the scheduled testing time will not be admitted. P/P candidates who arrive beyond their scheduled exam time will not be admitted into the exam. Candidates who are not admitted into the exam will be marked as a “no-show” and forfeit their exam registration fees.

NOTE: P/P exam candidates must bring their admission letter to be admitted into the exam.

Candidate Requirements
Candidates must provide two (2) forms of acceptable and valid forms of identification (ID). Candidates will not be admitted to the exam if proper identification is not provided. IDs must be in their original form; photocopy, scan, or facsimile copies are not acceptable. All forms of ID must have a signature before arriving at the testing center; it is not acceptable to sign the ID during the check-in process. Candidates refused admission to the exam for unacceptable ID will receive a no-show result and will forfeit their registration fees.

Acceptable forms of identification are as follows:

**Primary:** Must include photograph, name, signature, and valid expiration date. Examples include:
- Government issued driver’s license
- State/country identification card
- Passport
- Military identification card
- Alien registration card (e.g., green card, permanent visa)

**Secondary:** Must have name, signature, and valid expiration date. Examples include:
- U.S. Social Security card
- Credit or bank automated teller machine (ATM) card
- Student identification card
- Employment identification card
- Or, any form of ID on the primary list

Security
NSCA and AMP maintain exam administration and security standards that are designed to assure that all candidates are provided the same opportunity to demonstrate their abilities. The assessment center is continuously monitored by audio and video surveillance equipment for security purposes. All exam questions are the copyrighted property of NSCA. It is forbidden under federal copyright law to copy, reproduce, record, distribute, or display these exam questions by any means, in whole, or in part. Doing so may subject you to severe civil and criminal penalties.

Testing Environment
Candidates should dress to be comfortable for a variety of room temperatures.

Personal Belongings
Personal belongings are not allowed in the testing room. Backpacks, purses, cell phones, recording devices, books, calculators, papers, test materials, documents or memoranda, dictionaries, etc. must be stored in a secure area at the testing center. AMP, NSCA, and the testing center are not responsible for items left in the testing area.

Candidates may wish to bring a watch to help pace themselves on the exam; however, NO stopwatches, cell phones, or other timing devices may be used.

Exam Supplies
Candidates are not allowed to supply their own writing implements, notepads, or paper. Candidates will be provided with one (1) piece of scratch paper and two (2) pencils during check-in. Additional scratch paper may be requested, however the initial piece must be returned. Candidates must sign and return the scratch paper to the proctor at the completion of testing to receive a score report.

Questions and Comments about Exam Content
Questions concerning exam content may not be asked during the exam. Candidates may provide written comments to NSCA regarding test items at the time of the exam, or within five (5) business days following the test date. All comments are reviewed, but individual responses are NOT provided. Comments are used for exam development and do NOT affect the scoring process.
Providing comments at the exam

- CBT exams: Click on the button displaying an exclamation point (!) to the left of the “Time” button. This opens a dialogue box where comments may be entered.

- P/P exams: A form is included on the back of the answer sheet. Be specific when commenting on any item.

Providing comments following the exam

- Email comments to exams@nsca.com

Breaks
Candidates may take a break whenever they wish, however the exam timer will continue to run. Additional time for breaks is not provided unless as an approved special accommodation.

Leaving the Exam Early
Candidates must request the test center supervisor’s permission to leave the exam.

Exam Misconduct
Individuals who engage in misconduct will be dismissed from the exam. Scores will not be released and registration fees will not be refunded. The following are examples of misconduct.

- Creating a disturbance by being abusive or otherwise uncooperative
- Displaying and/or using electronic communications equipment
- Giving or receiving help, or being suspected of doing so
- Attempting to record exam questions or make notes
- Attempting to take the exam for someone else
- Utilizing notes, books, or other aids

Exam Results

Exam results are valid for one (1) calendar year following completion of the exam. Score reports are available immediately following the exam for CBT exams. Score reports are mailed to candidates in approximately 6-8 weeks for P/P exams.

Exam Scoring

The performance standard and exam scores are reported as scaled scores. Standards for all NSCA certification exams are represented as scaled scores of 70. Scaled scores allow for comparability across different exam forms, which may vary slightly in difficulty. Therefore, a scaled score of 75 obtained in 2011 is equivalent to a scaled score of 75 obtained in 2013, even though the exam forms of those years contained different items. Statistical equating methods are used to ensure the consistent application of the standard to different exam forms. Raw (unscaled) domain scores are provided to candidates on score reports to provide information about strengths and weaknesses. It is not possible for a candidate to relate raw scores to his or her scaled score.

Exam Pass Rates

Between July 2012 and June 2013, 3,589 candidates in the U.S. sat for both the Scientific Foundations section and Practical/Applied sections of the CSCS exam. Of those candidates, 69% passed the Scientific Foundations section, 70% passed the Practical/Applied section, and 61% passed both sections. During this same period, 1,529 candidates sat for the NSCA-CPT exam. Of those candidates, 67% passed. Passing rates for exams administered outside the U.S. are similar. Passing rates for the CSPS and TSAC-F exams are 76% and 100%, respectively.

Confidentiality of Results

Information about candidates and their exam results are considered confidential. Candidates may request exam results by contacting NSCA, which will be sent by mail or email. Exam results are not discussed over the phone. Research and reports conducted on exam results do not contain identifiable information of candidates.

Cancelled Scores

NSCA is committed to upholding the integrity of NSCA certification programs in a manner that is fair to candidates. When instances of equipment malfunction, candidate misconduct, or test administrator error are suspected and may impact the validity of exam score, NSCA reserves the
right to withhold and/or cancel examination results as appropriate.

**Interpreting Score Reports**
Candidates who do not pass the exam are encouraged to review their score report and determine which domain(s) need additional improvement.

**Conferral of Certification**
Candidates who pass the exam and have fulfilled all other certification requirements within one (1) year of passing the exam will be granted certification and receive a certification packet in the mail within 15 business days. Certification packets include:

- Certificate
- Recertification Policies and Procedures
- Notification of proper credential use
- Additional pertinent information as needed

**Retake Policy**
There are no limits to the number of times a candidate may attempt an exam. Candidates must wait 90 days to retake an exam. Applications may be submitted at any time. Candidates do not need to resubmit eligibility requirements unless the CPR/AED requirement has lapsed. Retake pricing is applicable to exam attempts that are made within one (1) year.

**Rescoring Requests**

**Paper and Pencil (P/P)**
Candidates receiving failing scores on a paper/pencil exam may request their answer sheet be scored by hand. A request for hand scoring should be submitted in writing with a $25 hand scoring fee to NSCA. Upon receipt of a written request and hand scoring fee, the candidate's answer sheet will be inspected and scored by AMP. This process ensures that no stray pencil marks, multiple responses, or other conditions interfered with the scoring. Hand scoring requests must be received no later than 60 days following the release of exam results. Requests received after that date will not be honored.

To ensure correct reporting of results, AMP selects a random sampling of answer sheets of candidates who score within one unit of passing. These answer sheets are manually rescored before results are mailed as a quality control measure. In extremely rare instances does an exam status change from “fail” to “pass.” Therefore, NSCA does not recommend hand scoring.

**Computer-Based Testing (CBT)**
A computer accepts responses from a keyboard or mouse in digitized form during a CBT. Computer-based testing eliminates problems that may have previously arisen with scanning paper/pencil answer sheets, since all responses are recorded by candidates during an exam. Therefore, scoring appeals are not accepted for computer-based testing.
In order to remain certified, NSCA requires that each Certified Strength and Conditioning Specialist (CSCS), Certified Special Population Specialist (CSPS), NSCA-Certified Personal Trainer (NSCA-CPT), and Tactical Strength and Conditioning Facilitator (TSAC-F) maintain current CPR certification and complete Continuing Education Units (CEU) requirements. The 2012-2014 Reporting Period deadline is December 31, 2014.

There are two options for becoming recertified:

1. Retake and pass the appropriate certification exam
2. Complete and report a specified number of continuing education units (CEUs)

**CEU Program Overview**

The purpose of continuing education is to encourage certified individuals to stay abreast of evolving knowledge and skills in the profession, and to promote the ongoing competency of those certified. In general, CEUs are based on the number of contact hours (or actual clock hours) undertaken to complete an activity or event. For example:

- 1 contact hour equals 0.1 CEU
- 10 contact hours equals 1.0 CEU

Not all CEU activities are based on actual clock hours. There are exceptions, such as college or university courses, where 1 semester credit hour equals 0.5 CEU and 1 quarter credit hour equals 0.3 CEU. For example:

- 3 unit, semester-long Exercise Physiology course equals 1.5 CEUs
- 4 unit, quarter-long Functional Anatomy course equals 1.2 CEUs

Educational activity completed prior to a conferred certification cannot be applied for CEUs. CEUs must be completed between the date of conferment and end of recertification cycle. Refer to the table below to determine the number of CEUs and related fees required.

**What if I Hold Multiple Certifications?**

If you hold multiple credentials, the same policies and procedures apply. You do not, however, need to submit 6.0 CEUs separately for each certification. For example, if you became CSCS and NSCA-CPT certified before January 1, 2012, you are only required to submit a total of 6.0 CEUs for the 2012-2014 reporting period. A more complex scenario exists if you became CSCS and NSCA-CPT certified at different times during the 2012-2014 reporting period. Special attention must be paid to the dates on your certificates to assure that the required CEUs are completed after those dates. Certificants are encouraged to contact NSCA if there is confusion regarding recertification requirements.

**Online CEU Reporting**

The online process is a convenient place to review, record, and edit CEU activities. To access the online CEU reporting page, visit [www.nsca.com/recertify](http://www.nsca.com/recertify). Online reporting allows certified individuals to:

- View certification summaries
- CEUs required
- Category maximums
- Certification number
- Certification expiration date
- Track accumulated CEUs
- Record and edit CEUs
- Submit the recertification fees

**Reporting CEUs by Paper**

If you choose, you can still complete the paper version of the CEU Reporting Form and mail or fax it along with your recertification fee. It can be downloaded from [www.nsca.com/recertify](http://www.nsca.com/recertify). With either reporting method you choose, the requirement is the same: to become recertified, your CEUs and recertification fee must be submitted to NSCA by December 31, 2014.

**CEU Category Descriptions**

**Category A**
Attendance at clinics, conferences, seminars, workshops, and symposia

**Category B**
Committee work; Hosting an exam; NSCA CEU Quizzes; Presentations; Publications

**Category C**
First Aid/AED certification or recertification; Post-certification college course work

**Category D**
Hot Topic quizzes; Home study; Personal development; Earning an NSCA certification not currently held; Earning NCCA-accredited certifications
Automatically Recorded CEUs
The NSCA office automatically records many of the CEUs that qualify toward Recertified with Distinction requirements. This includes CEUs earned by:

- Attending or presenting at NSCA events
- Authoring articles for NSCA publications
- Participating on NSCA committees

CEU Documentation
It is the responsibility of each certified individual to maintain a record of all documentation for completed activities; Documentation does not need to be submitted to NSCA unless requested.

*See table on next page for complete details.

Random Audit
NSCA will conduct a random audit of all certified individuals submitting their CEU Reporting Form and recertification fee. Those individuals selected for the audit will be required to submit their CEU documentation to NSCA.

Failure to Report/Appeals
Once certified, each certified individual continues to be certified as long as he/she fulfills the minimum CEU requirements and pays the recertification fee. The NSCA Certification Committee will be notified of the names of those failing to meet all CEU requirements so that the appropriate action may be taken. Those who fail to meet the CEU requirements will be sent a Notice of Certification Revocation. Those wishing to appeal the revocation can do so by completing an Appeal Application, submitting all supporting education documentation, and paying the appropriate appeals fee.

Required number of CEUs, Recertification Fee and Maximum Number of CEUs Allowed by Category
The table below shows the number of CEUs and appropriate recertification fee (in U.S. funds) required by December 31, 2014, and the maximum number of CEUs allowed in each category based upon the date certified.

<table>
<thead>
<tr>
<th>Original Certification Date (shown on certificate)</th>
<th>CEUs Required</th>
<th>Member Fee for Each Credential Held</th>
<th>Non-Member Fee for Each Credential Held</th>
<th>Category A Maximum</th>
<th>Category B Maximum</th>
<th>Category C Maximum</th>
<th>Category D Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 2012‡</td>
<td>6.0</td>
<td>$50</td>
<td>$75</td>
<td>5.5</td>
<td>4.0</td>
<td>5.5</td>
<td>3.5</td>
</tr>
<tr>
<td>During 2012**</td>
<td>4.0</td>
<td>$40</td>
<td>$65</td>
<td>3.5</td>
<td>2.5</td>
<td>3.5</td>
<td>1.5</td>
</tr>
<tr>
<td>During 2013**</td>
<td>2.0</td>
<td>$30</td>
<td>$55</td>
<td>1.5</td>
<td>1.0</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>January 1, 2014 to June 30, 2014*</td>
<td>1.0</td>
<td>$20</td>
<td>$45</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>July 1, 2014 to December 31, 2014</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* You must obtain CEUs from at least two categories.
† All CEUs must be earned after January 1, 2012, even if certification was earned before this date.
* All CEUs must be earned after the date of certification.
<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-Category</th>
<th>Activity</th>
<th>Number of CEUs Awarded</th>
<th>Required Documentation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Attendance</td>
<td>Attending strength and conditioning and/or personal training clinics, conferences, seminars, workshops, symposia, etc.</td>
<td>0.1 CEU per hour of attendance (Ex: 8 hour clinic x 0.1 CEU = 0.8 CEU) A maximum of 2.0 CEUs allowed for any one event</td>
<td>Photocopy of attendance certificate or letter verifying participation and number of hours for non-NSCA events</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A maximum of 2.0 CEUs allowed for any one event</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Committee Work</td>
<td>Serving as an NSCA Committee Member</td>
<td>0.5 CEU per year of committee involvement</td>
<td>Documentation for NSCA’s sponsored activities not required</td>
</tr>
<tr>
<td></td>
<td>Exam Host</td>
<td>Hosting an Exam on Request</td>
<td>0.5 CEU per year</td>
<td>Documentation for NSCA’s sponsored activities not required</td>
</tr>
<tr>
<td></td>
<td>NSCA Quizzes</td>
<td>Passing NSCA Strength and Conditioning Journal Quizzes</td>
<td>0.2 CEU for each quiz that is submitted and passed</td>
<td>Documentation for NSCA’s sponsored activities not required</td>
</tr>
<tr>
<td></td>
<td>Presentations</td>
<td>Serving as speaker or panelist at clinics, conferences, etc.</td>
<td>1.0 CEU per hour of presentation A maximum of 2.0 CEUs allowed for each presentation</td>
<td>Photocopy of brochure/flyer showing participation or letter of verification from event host</td>
</tr>
<tr>
<td></td>
<td>Publications</td>
<td>Authoring/co-authoring articles</td>
<td>1.5 CEUs for NSCA publications 1.0 CEU for peer-reviewed journals 0.5 CEU for all others</td>
<td>Photocopy of periodical cover and first page of article</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Authoring/co-authoring abstracts</td>
<td>1.0 CEU per published abstract</td>
<td>Photocopy of periodical and abstract</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Authoring/co-authoring chapters in books</td>
<td>1.5 CEUs per published chapter</td>
<td>Photocopy of book cover and table of contents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Authoring/co-authoring books</td>
<td>3.0 CEUs per published book</td>
<td>Photocopy of book cover and table of contents</td>
</tr>
<tr>
<td>C</td>
<td>First Aid/AED</td>
<td>Becoming certified or recertified in First Aid or AED</td>
<td>0.5 CEU awarded at time of certification/recertification for each</td>
<td>Photocopy of certification card(s)</td>
</tr>
<tr>
<td></td>
<td>College Course Work</td>
<td>Passing post-certification college course work</td>
<td>0.3 CEU per quarter hour 0.5 CEU per semester hour A maximum of 2.0 CEUs per course</td>
<td>Photocopy of grade report or transcript</td>
</tr>
<tr>
<td>D</td>
<td>Hot Topic Quiz</td>
<td>Passing NSCA Hot Topic Quizzes</td>
<td>0.1 CEU for each quiz that is submitted and passed</td>
<td>Documentation for NSCA’s sponsored activities not required</td>
</tr>
<tr>
<td></td>
<td>Pre-Approved Home Study</td>
<td>Successfully completing an approved home study course</td>
<td>CEUs awarded for preapproved courses only; refer to course listings at <a href="http://www.nsca.com">www.nsca.com</a> for number of CEUs awarded</td>
<td>Photocopy of verification of course completion from preapproved provider</td>
</tr>
<tr>
<td></td>
<td>Personal Development</td>
<td>Engaging in personal development activity</td>
<td>0.5 CEU per year</td>
<td>Statement of nature of activities completed</td>
</tr>
<tr>
<td></td>
<td>Exam for NSCA Certification Not Currently Held</td>
<td>Earning the certification for a NSCA credential not currently held</td>
<td>3.0 CEUs</td>
<td>Documentation for NSCA’s sponsored activities not required</td>
</tr>
<tr>
<td></td>
<td>NCCA-accredited Fitness, Sport or Exercise Nutrition Certifications</td>
<td>Earning fitness, sport or exercise nutrition certifications from other NCCA-accredited organizations</td>
<td>1.0 CEU</td>
<td>Photocopy of score report</td>
</tr>
</tbody>
</table>

*Documentation should be submitted in the following situations only:
- if you are selected for the random audit, which will take place in February 2015
- if you are appealing the revocation of your certification

CEUs for this activity qualify for Recertified with Distinction and will be automatically recorded.

Only CEUs earned directly through the NSCA qualify for Recertified with Distinction. CEUs for qualifying activities will be automatically recorded.

CEUs for this activity may be applied toward standard recertification only. They do not qualify for Recertification with Distinction.
Misconduct by Certified Individuals

The NSCA Certification Committee has approved the following items as reasons why credentialed individuals may be disciplined, up to and including the revocation of their certified status:

• Illegal use or falsification of certification certificates, credentials, or any other documents

• Unauthorized possession and/or distribution of any official testing materials to include copying and/or reproduction of any part of the exam questions or scenarios

• Unauthorized use of any of the registered trademarks owned by NSCA; these include the association and certification logos

• Not accumulating and/or reporting the required number of CEUs, or not paying the recertification fee within the applicable time period
INTERNATIONAL CANDIDATES
INTERNATIONAL CANDIDATES

NSCA offers the CSCS and NSCA-CPT certifications internationally on a limited basis through partnerships with NSCA affiliates in Japan, Italy, Spain, Korea, China, as well as organizations in other countries. International partners are responsible for the registration process within their country. NSCA administers certification exams only in paper and pencil format outside of the U.S. Certification exams administered are presented in both the native language and English; translations include: Japanese, Korean, Spanish (Castilian), Italian, and Chinese (Traditional and Simplified).

International candidates should review the information available on the website of the partner organization in their country to learn more about the registration process and availability of certification exams. NSCA links to the websites of its international partners can be accessed at http://www.nsca.com/about-us/international/. NSCA cannot guarantee international candidates the same level of accessibility to certification exams and other NSCA products and services (e.g., continuing education) as U.S. candidates.
Appendix A: Application Checklist

Computer-Based

☐ Read the general descriptions of NSCA Certifications

☐ Review the eligibility requirements

☐ Select a certification of best fit

☐ Determine the need for study materials

☐ Prepare for the exam

☐ Read the Certification Handbook

☐ Register for the exam [see Exam Registration Process section]
  * Candidates must take their exam within 120 days of submitting an exam registration

☐ Submit required documentation (results are withheld until all documentation has been received by NSCA)
  * Eligibility requirements are listed in the Eligibility Requirements section
  * Documentation will not be returned

☐ Receive/review email confirmation with scheduling instructions
  * Emailed approximately three (3) business days after registration is complete

☐ Schedule exam appointment with Applied Measurement Professionals (AMP)

☐ Take the exam
  ☐ Provide primary form of ID
  ☐ Provide secondary form of ID

Receive your exam results at the Assessment Center
  * Only if NSCA has received all of your required documentation

☐ Pass: Receive/review the Certification Packet

☐ Fail: Review the Retake Policy

☐ Maintain certification according to the recertification cycle

Paper and Pencil

☐ Read the general descriptions of NSCA Certifications

☐ Review the eligibility requirements

☐ Select a certification of best fit

☐ Determine the need for study materials

☐ Prepare for the exam

☐ Review the Paper and Pencil exam schedule

☐ Read the Certification Handbook

☐ Register for the exam [see Exam Registration Process section]
  * Submission of exam registration must be completed at least 120 days prior to the test date

☐ Submit required documentation (results are withheld until all documentation has been received by NSCA)
  * Eligibility requirements are listed in the Eligibility Requirements section
  * Documentation will not be returned

☐ Receive/review confirmation notice
  * Mailed approximately three (3) weeks after the registration deadline

☐ Receive/review test center admission approximately
  * Mailed 1-2 weeks prior to the exam date
  * The admission letter serves as authorization to sit for the exam

☐ Schedule exam appointment with Applied Measurement Professionals (AMP)

☐ Take the exam and bring the following to the testing site:
  ☐ Primary form of ID
  ☐ Secondary form of ID
  ☐ Admission letter

Receive your exam results at the assessment center
  * Only if NSCA has received all of your required documentation

☐ Pass: Receive/review the Certification Packet

☐ Fail: Review the Retake Policy

☐ Maintain certification according to the recertification cycle
Appendix B: Special Accommodations
Request Form

If you have a disability covered by the Americans with Disabilities Act, please complete this form and the Documentation of Disability-Related Needs on the reverse side and submit it with your application at least 45 days prior to your requested examination date. The information you provide and any documentation regarding your disability and your need for accommodation in testing will be treated with strict confidentiality.

Candidate Information

Requested Location _______________________________

Social Security # or ID # ___________________________ Requested Examination Date: ______________________

Name (Last, First, Middle Initial, Former Name)

Mailing Address

City State Zip Code

Daytime Telephone Number

Special Accommodations

I request special accommodations for the following examination: ☐ CSCS ☐ CPT


Please provide (check all that apply):

_____ Reader

_____ Extended testing time (time and a half)

_____ Reduced distraction environment

_____ Please specify below if other special accommodations are needed.

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

Comments: _________________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

PLEASE READ AND SIGN:

I give my permission for my diagnosing professional to discuss with AMP staff my records and history as they relate to the requested accommodation.

Signature: ____________________________ Date: ______________________

Return this form to:
Examination Services, AMP, 18000 W. 105th Street, Olathe, KS 66061-7543, Fax 913/895-4650.
If you have questions, call the Candidate Support Center at 888/519-9901.

Rev. 6/21/2010
Appendix C: Practical Experience Form

Practical Experience Form I CSPSTM Exam

Please Print or Type | Register Online at www.nsca.com

Name: ___________________________________________ Customer ID: _______________________

The NSCA Certification Committee requires a minimum of 250 related, practical experience hours. Related hours must be consistent with the described CSPS Scope of Practice. It is strongly recommended that candidates gain experience in each of the content domains.

Complete the form below as accurately as possible. The form should be used to describe your principle or supporting role in managing clients with unique needs. Experience hours must relate to the following: (1) educate a client on the basic pathophysiology and science of health status, condition, disorder, or disease; or, (2) perform health appraisals, fitness evaluations, SMART goal development, program design, motivational/coaching techniques, and client outcome monitoring. It is appropriate for candidates to include parallel hours for clients with comorbidities. For example, experience may count in three domains if a candidate works with a client who is obese, has Type 2 diabetes and osteoarthritis of the knee. Recorded hours are subject to a random audit, and references may be contacted for validation purposes; if self-employed, indicate as such.

Submit multiple copies as necessary.

Facility Name, address, and phone number: _________________________________________________________

Supervisor Name/Title: ____________________________________________________________

Type of Practice Setting: ____________________________________________________________

Position Title: ____________________________________________________________

Related Experience:

____________________________________________________________________________________

Total Hours of Experience: ____________________________

I affirm that the information provided above is accurate to the best of my knowledge. I also understand that recorded hours are subject to a random audit, and references may be contacted for validation purposes.

_________________________________________ Date

www.nsca.com March 2012
Appendix D: Application Affirmation

By submitting this NSCA exam registration, I accept the conditions set forth by NSCA Certification concerning the administration, reporting of examination scores and the certification and recertification processes and policies. I attest that the information contained in this registration is true, complete and correct to the best of my knowledge and is made in good faith. I understand that if any information is later determined to be false, the NSCA Certification Committee reserves the right to revoke the certification that has been granted on the basis thereof. I also understand that any irregularity including, but not limited to, copying answers; permitting another person to copy answers; falsifying information required for admission to the examination; impersonating another exam candidate; falsifying education or credentials; or providing and/or receiving unauthorized advice about exam content before, during or following the examination in connection with any NSCA Certification examination could result in immediate revocation of my certification. I further understand that the examination questions, certification names/acronyms and logos are protected under U.S. copyright law and, as such, willful infringement of the copyright is a federal crime. I recognize that any unauthorized possession of, use or distribution of or the act of providing access to NSCA Certification examination questions, certificates, NSCA Certification logos, abbreviations relating thereto and any other NSCA Certification documents and materials may result in immediate revocation of my certification. I also recognize and acknowledge that I will abide by the recertification requirements established in order to remain certified.
Appendix E: Code of Ethics for Certified Individuals

Prepared: June 1992


Since 1985, the National Strength and Conditioning Association (NSCA) has issued credentials to strength and conditioning practitioners and certified personal trainers. With the credibility possessed by the NSCA’s certification examinations comes the responsibility to ensure the integrity of the credentials awarded.

The NSCA is dedicated to maintaining high standards for its certified individuals. The NSCA is committed to certifying individuals who demonstrate the knowledge and skills necessary to design and implement safe and effective strength training and conditioning and personal training practices. The NSCA also believes that continuing education encourages individuals to stay abreast of evolving knowledge and skills and, in doing so, promotes their ongoing competency. This philosophy implies that the responsibility of its certified individuals is not limited to the well-being of the athletes and/or clients, but also to society in general and the reputation of others in their field; with the overall goal being an improvement of health and well-being for all.

This Code of Ethics of the NSCA Certification program was established so that Certified Strength and Conditioning Specialists and NSCA-Certified Personal Trainers are aware of the standards of ethical behavior that must be followed in the practice of their profession (strength training and conditioning and personal training). This Code of Ethics presents fundamental standards of behavior that all certified individuals must strive to achieve. It serves to increase ethical sensitivity and judgment, strengthen support for certified individuals’ moral courage, and sharpen their sense of identity as an integral part of the NSCA’s Certification Program and its continued success.

Certified individuals shall abide by this Code of Ethics and, in the practice of their profession of strength training and conditioning and personal training, shall observe the following minimum ethical principles:

1. Respect the rights, welfare and dignity of all individuals
2. Strive to provide competent, fair, and equal treatment to all individuals and not discriminate against anyone
3. Provide and maintain a safe and effective training environment
4. Comply with all applicable laws including, but not limited to, business, employment, and copyright laws
5. Accept responsibility for the use of sound judgment when working with their clientele
6. Respect the confidentiality of their clientele and preserve the confidentiality of personal and privileged information of athlete and client, while remaining accountable
7. Not release any information to a third party not involved with the athlete’s or client’s care without a written release unless required by law
8. Not misrepresent, either directly or indirectly, their skills, training, professional credentials, identity, or services
9. Only provide services that they are qualified to provide through education or experience, and which are allowed by practice acts and other pertinent regulations
10. Refer their clientele to more qualified fitness, medical or health professionals when appropriate
11. Remain current on practical and theoretical foundations through continuing education activities
12. Avoid engaging in any behavior or form of conduct that would constitute a conflict of interest or actions that adversely reflect on the profession or the NSCA and the NSCA Certifications
13. Strive to safeguard the well-being of athletes and/or clients of certified individuals, and the public, by reporting violations of this Code of Ethics
To provide for enforcement of this Code of Ethics and to protect athletes and clients of certified individuals, as well as the public, from those who attempt to misrepresent, misuse, or abuse their qualifications as credentialed practitioners or their credential, the NSCA has established a Disciplinary Policy and Procedures for its Certification Program, with the application of the Disciplinary Policy and Procedures under the jurisdiction of the NSCA Certification Committee. The Disciplinary Policy and Procedures, which may be amended from time to time, is incorporated into this Code of Ethics by this reference.

This Code of Ethics and the Disciplinary Policy and Procedures apply to all individuals certified by the NSCA through its Certification Program, whether or not such individuals are members of the NSCA. The NSCA has a Code of Ethics of general application to its members. As to the relationship between the NSCA Code of Ethics and this Code of Ethics for Certified Individuals, matters pertaining to the conduct of a certified individual that are within the scope of this Code of Ethics for Certified Individuals will be administered under this Code of Ethics for Certified Individuals and the related Disciplinary Code and Procedures, rather than the NSCA Code of Ethics.
Appendix F: Discipline Policy
Certification Program Disciplinary Policy and Procedures

Prepared: June 1992

Updated: June 1998, January 2000, October 2008, and April 2013

With the credibility possessed by the CSCS and NSCA-Certified Personal Trainer examinations, as administered through NSCA Certification Program, comes the responsibility to ensure the integrity of the credentials awarded. As a part of its Certification Program, NSCA has adopted a Code of Ethics for Certified Individuals (the “Code of Ethics”). As stated in the Code of Ethics:

• The NSCA is dedicated to maintaining high standards for its certified individuals
• The NSCA is committed to certifying individuals who demonstrate the knowledge and skills necessary to design and implement safe and effective strength training and conditioning and personal training practices
• The Code of Ethics was established so that Certified Strength and Conditioning Specialists and NSCA-Certified Personal Trainers are aware of the standards of ethical behavior that must be followed in the practice of their profession (strength training and conditioning and personal training)
• The Code of Ethics presents fundamental standards of behavior that all certified individuals must strive to achieve. It serves to increase ethical sensitivity and judgment, strengthen support for certified individuals’ moral courage, and sharpen their sense of identity as an integral part of the NSCA’s Certification Program and its continued success

To provide for enforcement of the Code of Ethics and to protect the public from those who attempt to misrepresent their qualifications as credentialed practitioners, NSCA established this Disciplinary Policy and Procedures for its Certification Program. The application of this Disciplinary Policy and Procedures is under the jurisdiction of the NSCA Certification Committee.

The Certification Committee has been charged with investigating incidents and imposing discipline where (i) credentials have been falsified, altered examination score reports have been prepared, and/or forged educational documents have been presented and (ii) already credentialed practitioners have been found to violate the Code of Ethics or engaged in other unacceptable practice-related behaviors.

The Certification Committee is a permanent Committee of NSCA, which includes seven (7) members: one public representative (a person who is not certified and not an NSCA member) and six (6) certified professionals representing various disciplines within the Exercise Science domains. All nominations and selections of members to the Certification Committee require approval of the NSCA Board of Directors. Criteria used in the selection of the Certification Committee includes familiarity with and dedication to the primary goal of the NSCA (i.e., to administer credentialing examinations of the highest quality) and an understanding of the NSCA’s responsibility in ensuring that only those who have passed the examination are using the credential.

To accomplish its charge, the Certification Committee has adopted this Disciplinary Policy and Procedures as official operating policies and procedures that meet the standards of the National Commission for Certifying Agencies (NCCA). NCCA requires that member organizations have an enforceable disciplinary process.

The disciplinary process outlined in this Disciplinary Policy and Procedures is designed to allow the Certification Committee to become involved in matters that can be factually determined and which provide the charged party with a fair opportunity to respond in a professional and legally defensible atmosphere.
Reporting Possible Problems
To protect the credentials and ensure responsible practice by its credentialed practitioners, the NSCA depends upon strength and conditioning and personal training professionals, employers, and the public to report incidents that may require action by the Certification Committee. Complaints that appear to fit the scope of the Committee’s responsibilities may be sent to:

Certification Committee Chair
National Strength and Conditioning Association
1885 Bob Johnson Drive
Colorado Springs, CO 80906

Procedures
1. Complaints of alleged violations may be submitted by any interested party (the “Complainant”), or may be self-initiated by the NSCA.

2. Complaints must be in writing, be signed, provide the name of the person whose conduct is being complained about (the “Charged Party”) and provide details, with appropriate supporting documentation if possible, of how a particular provision of the Code of Ethics of other standard, policy, or procedure is being or was violated by the Charged Party.

3. The Complainant will be informed in writing of decisions made with respect to disposition of the Complaint (i.e., there are no grounds for investigation or the Complaint will be investigated).

Types of Complaints
The following are reasons that registrations for the certification examinations may be refused and/or that the examination candidates and credentialed practitioners may be disciplined.

1. Obtaining or attempting to obtain certification by fraud, deception, or artifice.

2. Knowingly assisting another person or other persons in obtaining or attempting to obtain certification, by fraud, deception, or artifice.

3. Illegal use of a certification certificate or falsification of credentials, or any other NSCA documents.

4. Unauthorized use of the designation “CSCS”, “NSCA-Certified Personal Trainer”, or “**D.”

5. Unauthorized possession and/or distribution of any official CSCS or NSCA-CPT examination materials to include copying and/or reproduction of any part, question, or problem of any certification examination. No part of any copyrighted document may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying or recording, or by any information retrieval system, without written permission from the NSCA.

When the NSCA becomes aware of an incident that may fall into one of the preceding categories, the Certification Committee will begin an investigation to determine whether any disciplinary action will need to be taken.

Investigation Procedures
The process outlined in this Disciplinary Policy and Procedures is designed to give the Charged Party a fair opportunity to respond to the allegation and/or explain the situation before any action is taken by the Certification Committee. In each instance that comes to the NSCA’s attention, the following steps are taken to conduct the investigation as expeditiously as reasonably possible and to resolve the Complaint:

1. Investigation Notice: The Executive Director responds to an initial Complaint received by providing a written notice by certified mail to the Charged Party of the Complaint and the allegations contined in the Complaint. The Charged Party is given an opportunity to respond in writing to clarify the matter or provide other pertinent information within thirty (30) days of the date the written notice was received by the Charged Party.
2. Decision as to Further Action: Based on the Charged Party’s response to the Executive Director’s inquiry about the Complaint, the Certification Committee meets to determine whether or not the Complaint appears to have merit and whether or not it falls within the scope of the Certification Committee’s responsibilities. The Certification Committee then determines if a hearing, in which the Charged Party and others, including the Complainant, may present testimony and written evidence, will be conducted. If the decision is that the Complaint does not have merit or does not fall within the scope of the Certification Committee’s jurisdiction, the Complaint is dismissed and the Charged Party and the Complainant are notified in writing by the Executive Director that no action will be taken by the NSCA. In the event the Charged Party does not respond, the Certification Committee may determine what action it believes is appropriate to take, including imposition of any discipline that it believes is appropriate based on all information available to the Certification Committee.

3. Hearing Notice/Information Gathering: If it is determined that the Complaint appears to have merit and is within the jurisdiction of the Certification Committee, the Charged Party is notified by certified mail that a formal hearing will be conducted at the next Certification Committee meeting; provided that such hearing shall not take place sooner than thirty (30) days after the Charged Party has received such written notice. The specific violation alleged to have been committed is identified and the Charged Party is given thirty (30) days from receipt of such written notice in which to provide a written, signed response to the Certification Committee regarding the Complaint. At the same time, the NSCA may contact the Complainant and other individuals about the matter and gather other information that may help the Certification Committee decide if a violation has occurred. The Charged Party has the right to review all information so gathered, as well as to be personally present and/or represented by legal counsel at the hearing. The Charged Party may waive the conduct of the hearing, in which case the Certification Committee is authorized to consider all information submitted to it in connection with the investigation and information gathering process described above, including in the Complaint and the response of the Charged Party, and to render a decision based on consideration of all such information.

4. Hearing: The hearing will be conducted in an informal manner, following procedures that afford a fair and reasonable basis for the parties to be heard, for information to be submitted for consideration, and for challenges of information that has been submitted and cross-examination of testimony given. All of the information gathered during the investigation, all information provided by the Charged Party, and all information submitted at the hearing, whether testimony or written information, is reviewed by the Certification Committee. Any testimony from the Charged Party, the Complainant, or other witnesses, is taken during the hearing and a transcribed record of the proceedings is made. The hearing may be conducted in person or by conference call or other electronic communications means by which all persons participating can hear one another and testimony and information can be shared in a fair and reasonable manner. The Certification Committee will adopt and utilize hearing procedures to accomplish the hearing.

5. Case Decision: Based on the record of the hearing, including all testimony given and all information submitted, the Certification Committee determines whether or not the Charged Party has violated NSCA policies and, if so, what disciplinary action the NSCA will take. Written notice of the Certification Committee’s decision is provided to the Charged Party and the Complainant by certified mail.

6. Appeal: Upon receipt of the notice of the Certification Committee’s decision, the Charged Party has thirty (30) days to file a written appeal of the decision to the NSCA. When an appeal is made, the NSCA Board of Directors reviews the record of the case and determines whether to affirm or modify the Certification Committee’s decision.

Possible Disciplinary Actions
The Certification Committee considers each alleged violation of NSCA policies as individual cases and makes decisions regarding appropriate punishment to fit the circumstances. In doing this, the Certification Committee has a range of possible disciplinary measures from which to choose:

1. Admonishment: A written reprimand by the Chair of the NSCA Certification Committee to be placed in an individual's certification record for a minimum of two years.
2. **Formal censure:** An official resolution recorded in the minutes of a meeting of the Certification Committee expressing the Certification Committee’s official displeasure with an individual’s conduct and/or responsiveness to the NSCA.

3. **Removal from eligibility for certification examinations for a specified period of time:** Depending upon the seriousness of the offense and the individual’s responsiveness to the NSCA’s concerns, the Certification Committee may remove a person’s eligibility for credentialing for a definite length of time, or for an indefinite period. To be reinstated, the individual must petition the Certification Committee for reconsideration of the matter and explain why such reconsideration should be made.

4. **Deletion from the NSCA membership for a definite or indefinite period of time:** For already credentialed practitioners who violate NSCA policies, the Certification Committee may suspend the practitioner’s active membership and require the individual to formally petition for reinstatement.

5. **Disqualification from re-credentialing as a result of violation of NSCA policies for a definite or indefinite period of time.**

**Disciplinary Actions for Practice-Related Offenses**

In addition to the preceding measures that may be taken against those who violate NSCA policies, the Certification Committee may take the following more stringent actions against examination candidates and credentialed practitioners who commit practice-related offenses that affect the safety of athletes/clients and/or call into serious question the individual’s competence to practice:

1. Deletion from “active” credentialed status for a definite or indefinite period of time, not to exceed the length of any court-imposed or regulatory agency-imposed punishment.

2. Suspension of a credential(s) for an indefinite period of time, not to exceed the length of court-imposed or regulatory agency-imposed punishment.

3. Suspension from the examination system(s) for a definite or indefinite period of time, not to exceed the length of a court-imposed or regulatory agency-imposed punishment.

4. Publication of disciplinary action in the NSCA Bulletin and/or Strength and Conditioning Journal.

5. Mandatory re-examination to document continued competence as a credentialed practitioner; failure of the examination could lead to suspension of a credential for a definite or indefinite period of time.

Additionally, when the NSCA is advised of serious practice-related offenses with respect to which there has been punishment imposed by a court or regulatory agency, the NSCA Certification Department maintains records of legal information received and referred inquiries in response to legitimate requests for information about the practitioner’s ability to function on the job. This is done during the length of a court-imposed punishment or regulatory agency-imposed punishment.

**Trademarks and Service Marks**

In addition to policing the use of the Certified Strength and Conditioning Specialist (CSCS) or NSCA-Certified Personal Trainer (NSCA-CPT) credentials, the Certification Committee also has the responsibility to oversee the protection of NSCA’s certification trademarks and service marks from infringement by unauthorized parties. Only those who have passed the CSCS and NSCA-Certified Personal Trainer examinations have the right to use the trademark designation, thus adding to the meaning and value of the Certified Strength and Conditioning Specialist and NSCA-Certified Personal Trainer credentials.

Reference: “The Judicial and Appeals Committee: Protecting the Profession’s Credentials” NBRC. This Disciplinary Policy and Procedures were formulated using the model established by the National Board of Respiratory Care (NBRC), which are in accord with the standards established by the National Commission for Certifying Agencies. Modifications to these standards were necessary in some instances.
Appendix G: Sample Score Report

**Figure 1. Pass**

---

**SCORE REPORT**

NSCA  
CSCS ®  
PRACTICAL/APPLIED Section

CSCS CANDIDATE  
1885 BOB JOHNSON DRIVE  
COLORADO SPRINGS CO 80906

You have passed this exam. Your score is 74 scaled-score units or 82 correct answers.

The passing score is 70 scaled-score units or 78 correct answers.

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Your Score / Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EXERCISE TECHNIQUE</td>
<td>31 / 39</td>
</tr>
<tr>
<td>2. PROGRAM DESIGN</td>
<td>28 / 40</td>
</tr>
<tr>
<td>3. ORGANIZATION AND ADMINISTRATION</td>
<td>10 / 11</td>
</tr>
<tr>
<td>4. TESTING AND EVALUATION</td>
<td>13 / 20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>82 / 110</strong></td>
</tr>
</tbody>
</table>

Congratulations! Candidates who pass both sections of the CSCS exam will receive a certificate acknowledging their achievement in approximately 15 business days. If you have any questions, please contact the NSCA.

1885 Bob Johnson Drive  
Colorado Springs, CO 80906-4000  
Phone: 800-815-6826 (719-632-6722 outside the U.S. and Canada)  
Fax: 719-632-6367  
E-mail: exams@nsca.com  
Web site: www.nsca.com
Appendix H: CSCS Detailed Content Outlines and Sample Questions

CSCS® EXAMINATION
Detailed Content Outline

SCIENTIFIC FOUNDATIONS

1. EXERCISE SCIENCES

   A. Apply Knowledge of Muscle Anatomy and Physiology
      1. Muscle anatomy (e.g., muscle group names, specific muscle names, muscle fiber/cell structure)
      2. Muscular dynamics involved during movement patterns (e.g., sliding filament theory, type of muscle action)

   B. Apply Knowledge of Neuromuscular Anatomy and Physiology
      1. Neuromuscular anatomy (e.g., motor unit, Type I and II fibers, muscle spindle, Golgi tendon organ)
      2. Neuromuscular responses to exercise (e.g., motor unit recruitment patterns, nerve conduction, summation)

   C. Apply Knowledge of Basic Principles of Biomechanics Regarding Exercise Selection, Execution, and Sport Performance
      1. Kinematic principles of movement (e.g., anatomical planes of movement, joint angles, velocity)
      2. Kinetic laws and principles of movement (e.g., momentum, torque, power, work, force, center of gravity, impulse, center of pressure, force-velocity curve, force-time curve, isometric/isotonic/isokinetic, lever systems)
      3. Role of muscles in movement (e.g., agonist, antagonist, synergist, neutralizer, stabilizer)

   D. Apply Knowledge of Bone and Connective Tissue (tendons and ligaments) Anatomy and Physiology
      1. Bone and connective tissue anatomy
      2. Bone and connective tissue responses to exercise and training

   E. Apply Knowledge of Bioenergetics and Metabolism
      1. Characteristics of the energy systems
      2. Effects of manipulating training variables (e.g., mode, intensity, duration, volume and work:rest ratio) to target specific energy systems

   F. Apply Knowledge of Neuroendocrine Physiology
      1. Functions of hormones (e.g., testosterone, growth hormone)
      2. Neuroendocrine responses to exercise and training

   G. Apply Knowledge of Cardiopulmonary Anatomy and Physiology
      1. Cardiopulmonary anatomy (e.g., structure of the heart, vascular system, lungs)
      2. Cardiopulmonary responses to exercise and training

   H. Apply Knowledge of Physiological Adaptations to Exercise and Training
      1. Adaptations to metabolic conditioning
      2. Causes, signs, symptoms and effects of overtraining and detraining

   I. Apply Knowledge of the Anatomical, Physiological and Biomechanical Differences of Athletes (e.g., age, sex, training status, specific sport or activity)
### SCIENTIFIC FOUNDATIONS

#### J. Apply Knowledge of Psychological Techniques Used to Enhance Training and Performance

1. Motivational techniques (e.g., imagery techniques, reinforcement strategies)
2. Methods that enhance motor learning and skill acquisition (e.g., instruction, feedback, whole versus part practice)
3. Attentional control and decision-making (e.g., focus, arousal management)
4. Confidence and positive self-talk

#### 2. NUTRITION

<table>
<thead>
<tr>
<th>Total Items</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 10 5 21</td>
<td>26</td>
<td>43</td>
<td>11</td>
</tr>
</tbody>
</table>

**A. Apply Basic Knowledge of Nutritional Factors Affecting Health and Performance**

1. Health-related and performance-related application of nutrition concepts (e.g., food groups, food exchanges, “MyPlate”, glycemic index)
2. Nutritional needs of various athletes for carbohydrates, protein, fat, vitamins, and minerals
3. Health risk factors associated with dietary choices (e.g., a high intake of cholesterol, triglycerides, and/or saturated fat, low intake of calcium and iron)
4. Effects of hydration status and electrolyte balance/imbalance on health and performance
5. Caloric vs. nutrient dense foods

**B. Apply Basic Strategies for Manipulating Food Choices and Training Methods to Maximize Performance**

1. Training/nutritional programs that produce specific changes in body composition (e.g., fat loss or lean body mass increase)
2. Composition and timing of nutrient and fluid intake before, during, and after an exercise session or a sport event
3. Nutritional factors that affect muscular endurance, hypertrophy, strength, and aerobic endurance

**C. Recognize Signs, Symptoms, and Behaviors Associated with Eating Disorders and Altered Eating Habits**

1. Signs and symptoms associated with disordered eating (e.g., body dysmorphia), bulimia, and anorexia
2. Body composition changes and performance variations associated with eating disorders or disordered eating
3. Referral to a qualified health care professional

**D. Apply Basic Knowledge of the Effects, Risks, and Alternatives of Common Performance-Enhancing Substances and Methods**

1. Ergogenic aids and dietary supplements (e.g., creatine, carbohydrate loading, anabolic steroids, blood doping) abiding by relevant governing bodies
2. Signs and symptoms of ergogenic aid abuse

Totals for SCIENTIFIC FOUNDATIONS section: 26 43 11 80
A. Teach and Evaluate Resistance Training Exercise Technique
   1. Free weight training equipment:
      a. preparatory body and limb position (e.g., grip, stance, alignment)
      b. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      c. correction of improper technique
   2. Resistance machines (e.g., pulley, cam, hydraulic, friction, air, tubing)
      a. preparatory body and limb position (e.g., grip, stance, alignment)
      b. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      c. correction of improper technique
   3. Alternative modes (e.g., core, stability, balance, calisthenic, body weight only)
      a. preparatory body and limb position (e.g., grip, stance, alignment)
      b. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      c. correction of improper technique
   4. Non-traditional implements (e.g., logs, tire-flipping, heavy ropes, kettle bells, heavy medicine balls)
      a. preparatory body and limb position (e.g., grip, stance, alignment)
      b. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      c. correction of improper technique

B. Teach and Evaluate Plyometric Exercise Technique
   1. preparatory body and limb position (e.g., stance, posture, alignment)
   2. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
   3. correction of improper technique

C. Teach and Evaluate Speed/Sprint Technique (e.g., resisted and assisted sprinting, speed-strength):
   1. preparatory body and limb position (e.g., stance, posture, alignment)
   2. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
   3. correction of improper technique

D. Teach and Evaluate Agility Technique (e.g., forward, backward and lateral movements; turn, transition, acceleration, and deceleration maneuvers)
   1. preparatory body and limb position (e.g., stance, posture, alignment)
   2. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
   3. correction of improper technique

E. Teach and Evaluate Metabolic Conditioning/Energy Systems Development
### CSCS® EXAMINATION
#### Detailed Content Outline

**PRACTICAL / APPLIED**

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total Items</th>
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</thead>
<tbody>
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</tbody>
</table>

1. Cardiovascular equipment (e.g., treadmill, bicycle, rowing machine, stair stepper, elliptical trainer)
   a. machine programming and setup
   b. preparatory body and limb position (e.g., stance, posture, alignment)
   c. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
   d. correction of improper technique

2. General body-only activities (e.g., walking, jogging, running, swimming)
   a. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
   b. correction of improper technique

3. Anaerobic conditioning activities (e.g., conditioning drills, heavy rope training, intermittent training)
   a. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
   b. correction of improper technique

F. Teach and Evaluate Flexibility Exercise Technique:
   1. Static stretching exercises
      a. preparatory body and limb position (e.g., stance, posture, alignment)
      b. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      c. correction of improper technique
   2. Proprioceptive neuromuscular facilitation (PNF) stretching exercises
      a. preparatory body and limb position (e.g., stance, posture, alignment)
      b. body mechanics to perform PNF stretching on an athlete
      c. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      d. correction of improper technique
   3. Dynamic stretching exercises
      a. preparatory body and limb position (e.g., stance, posture, alignment)
      b. execution of technique (e.g., body and limb positions, movement mechanics, breathing, focus, arousal)
      c. correction of improper technique

G. Teach Spotting Procedures and Techniques
   1. Number of spotters needed for a given situation or exercise
   2. Spotter location (i.e., the physical placement of the spotter or spotters in relation to the lifter)
   3. Body and limb placement required when spotting the lifter (i.e., once in the correct position)

2. **PROGRAM DESIGN**

Based upon an athlete’s health status, training age, capabilities, and training goals, design training programs that maximize performance and minimize injury potential by...

A. Incorporating Various Training Methods and Modes
<table>
<thead>
<tr>
<th>Detailed Content Outline</th>
<th>Cognitive Level</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRACTICAL / APPLIED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Different types of training methods and modes (e.g., resistance, plyometric, speed/sprint, interval, agility, aerobic, flexibility)</td>
<td>Recall</td>
<td></td>
</tr>
<tr>
<td>2. Combinations of various training methods and modes to reach a certain goal or outcome (e.g., muscular endurance, hypertrophy, strength, power, aerobic endurance)</td>
<td>Application</td>
<td></td>
</tr>
<tr>
<td><strong>B. Selecting Exercises</strong></td>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>1. Exercises specific to movement patterns of a particular sport (e.g., an exercise and its application and effectiveness for a sport, an exercise and movements involved in a sport, an exercise and muscles used in sport)</td>
<td></td>
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<tr>
<td>2. Exercises (e.g., power, core, assistance, structural) based upon the type or number of the involved muscle group or groups (e.g., what exercise trains certain muscle(s); how to change an exercise to change the involved muscles)</td>
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<tr>
<td>3. Exercises based upon the type of kinetic chain movement (e.g., open or closed)</td>
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<tr>
<td>4. Exercises to minimize injury potential (e.g., hamstring versus quadriceps, upper body versus lower body)</td>
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<tr>
<td>5. Exercises to promote recovery</td>
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<tr>
<td><strong>C. Applying the Principles of Exercise Order</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Order of exercises based on the training goal</td>
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<tr>
<td>2. Variations in exercise orders (e.g., large to small muscle groups, alternating push with pull, alternating upper body exercises with lower body exercises)</td>
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<tr>
<td>3. Variations in exercise modes (e.g., explosive training, strength training, warmup/workout/cooldown, energy system training prioritization)</td>
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<tr>
<td><strong>D. Determining and Assigning Exercise Intensities (e.g., load, resistance, heart rate)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Methods for assigning an exercise load (e.g., a percent of the 1RM or the athlete's body weight, RM loads, RPE) or exercise heart rate (e.g., a percent of maximum heart rate or functional capacity, the Karvonen method)</td>
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<tr>
<td>2. Load or exercise heart rate based on the training goal (e.g., muscular endurance, hypertrophy, strength, power, aerobic endurance)</td>
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<tr>
<td><strong>E. Determining and Assigning Training Volumes (defined as sets x reps)</strong></td>
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<tr>
<td>1. Outcomes associated with the manipulation of training volume</td>
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<tr>
<td>2. Volume based on the training goal (e.g., muscular endurance, hypertrophy, strength, power, aerobic endurance)</td>
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<tr>
<td><strong>F. Determining and Assigning Work/Rest Periods, Recovery and Unloading, and Training</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Work/rest periods and recovery (e.g., muscular endurance, hypertrophy, strength, power, metabolic conditioning)</td>
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<tr>
<td>2. Training frequency (e.g., muscular endurance, hypertrophy, strength, power, metabolic conditioning, recovery)</td>
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<tr>
<td><strong>G. Determining and Assigning Exercise Progression (e.g., mode, intensity, duration, frequency)</strong></td>
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<tr>
<td><strong>H. Applying the Principles of Periodization</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Periodization (e.g., the periods/phases/cycles, the types of training programs associated with the phases/periods/cycles)</td>
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<tr>
<td>2. Training variations based on a sport season (i.e., a certain training period, phase, or cycle for a specific sport season)</td>
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<tr>
<td>3. A periodized program specific to the athlete's demands of a sport, position, and training level</td>
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<tr>
<td><strong>I. Designing Programs for an Injured Athlete During the Reconditioning Period (e.g., assigning exercises for a given injury or condition in collaboration with sport medicine professionals)</strong></td>
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</tr>
</tbody>
</table>
### 3. ORGANIZATION AND ADMINISTRATION

<table>
<thead>
<tr>
<th>Item</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Determine the Design, Layout, and Organization of the Strength and Conditioning Facility (e.g., flooring, ceiling height, mirror placement, ventilation, lighting, characteristics of the equipment) Based on Athletic Needs and Industry Standards</td>
<td></td>
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<tr>
<td>B. Determine the Primary Duties and Responsibilities of the Members of the Strength and Conditioning Staff</td>
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<tr>
<td>C. Determine the Policies and Procedures Associated with the Operation of the Strength and Conditioning Facility (e.g., facility/equipment cleaning and maintenance, rules, scheduling, emergency procedures)</td>
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<tr>
<td>D. Create a Safe Training Environment Within the Strength and Conditioning Facility:</td>
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</tr>
<tr>
<td>1. Identify common litigation issues and ways to reduce or minimize the risk of liability within the facility</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>2. Recognize symptoms relating to overuse, overtraining and temperature-induced illness</td>
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<tr>
<td>3. Recognize when to refer an athlete to and/or seek input from allied health professionals (e.g., athletic trainer, physical therapist, physician, registered dietitian, sport psychologist)</td>
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</table>

### 4. TESTING AND EVALUATION

<table>
<thead>
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<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Select and Administer Tests to Maximize Test Reliability and Validity</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. Tests based upon the unique aspects of a sport, sport position and training status</td>
<td>3</td>
<td>11</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>2. Test administration procedures that use equipment, personnel, and time efficiently</td>
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<tr>
<td>B. Administer Testing Protocols and Procedures to Ensure Reliable Data Collection</td>
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<td></td>
</tr>
<tr>
<td>1. Testing equipment and its proper use</td>
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</tr>
<tr>
<td>2. Testing procedures (e.g., warm-up, how to test, proper rest between trials)</td>
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<tr>
<td>3. Testing to assess physical characteristics (e.g., body weight, girth, body fat, height) and evaluate performance (e.g., muscular strength, power, anaerobic capacity, muscular endurance, aerobic endurance, agility, speed, flexibility)</td>
<td></td>
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<tr>
<td>C. Evaluate and Interpret Test Results</td>
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</tr>
<tr>
<td>1. Validity of test results</td>
<td></td>
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</tr>
<tr>
<td>2. Typical vs. atypical test results based on a sport or sport position</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. Design or modification of the training program based on test results (i.e., determine which outcome of training needs to be improved in a future program)</td>
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</tbody>
</table>

Totals for PRACTICAL/APPLIED section: 21 54 35 110
Appendix H: CSCS Detailed Content Outlines and Sample Questions
CSCS Sample Questions

1. Which of the following shoulder movements and planes of motion are associated with the upward movement phase of the side lateral shoulder raise exercise?
   A. flexion/transverse
   B. abduction/sagittal
   C. abduction/frontal

2. An untrained college-aged athlete begins a resistance training program. After training for three weeks, her strength increases dramatically. Which of the following is the most influential factor responsible for this improvement?
   A. decreased cross-sectional area of Type I fibers
   B. increased number of muscle fibers
   C. improved neuromuscular efficiency

3. What is the MINIMUM amount of carbohydrates that a 132-lb (60-kg) competitive Olympic triathlete should consume on a daily basis?
   A. 120 g
   B. 480 g
   C. 960 g

4. When running, which of the following contributes the MOST to minimizing the braking effect of a heel foot strike?
   A. eccentric hip flexion
   B. concentric hip extension
   C. eccentric knee extension

5. Which of the following components of mechanical load is the LEAST important for stimulating new bone formation?
   A. rest period
   B. magnitude
   C. rate of loading

Answers: (1) C (2) C (3) B (4) B (5) A
# Appendix I: NSCA-CPT Detailed Content Outline and Sample Questions

<table>
<thead>
<tr>
<th>NSCA-CPT® EXAMINATION</th>
<th>Cognitive Level</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Content Outline</td>
<td>Recall</td>
<td>Application</td>
</tr>
<tr>
<td><strong>1. CLIENT CONSULTATION &amp; ASSESSMENT</strong></td>
<td>9</td>
<td>19</td>
</tr>
</tbody>
</table>

### A. Initial Interview
1. Determine compatibility between a client and a personal trainer
2. Administer a client-personal trainer and/or a client-personal trainer-fitness facility agreement
3. Administer an informed consent and liability waiver form
4. Administer an assessment inventory on attitude and readiness

### B. Medical History and Health Appraisal
1. Administer a detailed medical history/health appraisal form and a lifestyle questionnaire (including exercise and injury history)
2. Obtain a medical release from the client’s primary physician, if necessary
3. Interpret medical history/health appraisal form and lifestyle questionnaire
4. Refer a client to and/or seek input from an appropriate health care professional
5. Maintain a network of allied health care professionals

### C. Fitness Evaluation
1. Conduct fitness evaluation including:
   a. vital signs (heart rate, blood pressure)
   b. height
   c. weight
   d. body composition
   e. girth measurements
   f. muscular strength
   g. muscular endurance
   h. speed/agility/power
   i. cardiovascular endurance
   j. flexibility
   k. postural alignment/muscle balance
2. Conduct movement assessments
3. Interpret the results of a health/fitness evaluation
4. Refer a client to and/or seek input from an appropriate health care professional

### D. Basic Nutrition Review
1. Identify the personal trainer’s scope of practice regarding nutritional recommendations
2. Conduct a review of a client’s dietary habits (e.g., recall, history, or food records)
3. Communicate basic information from peer-reviewed resources regarding nutrition, supplements, nutrient timing, and daily caloric needs
4. Recognize the signs and symptoms of an eating disorder
5. Refer client to and/or seek input from an appropriate health care professional
### 1. PROGRAM PLANNING

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17</td>
<td>13</td>
<td>13</td>
<td>43</td>
</tr>
</tbody>
</table>

**A. Goal Setting**

1. Establish needs and goals by discussing the results of a fitness evaluation with a client
2. Establish needs and goals by discussing the results of dietary habit log with a client
3. Establish needs and goals by discussing health-related lifestyle habits (e.g., smoking, alcohol use) with a client
4. Determine the motivational/coaching techniques (e.g., reward system, reinforcement strategies, mental imagery techniques, visualization) that will be effective for a client

**B. Program Design**

1. Select the exercise modality or type
2. Select the warm-up/cool down exercises
3. Determine the order of exercises or exercise components
4. Determine the exercise intensity or workload
5. Determine exercise duration
6. Determine exercise frequency
7. Determine the rate of exercise progression

**C. Training Adaptations**

1. Describe exercise-induced changes to body structures
   - a. muscles
   - b. tendons, ligaments, and connective tissue
   - c. bone and cartilage
   - d. adipose tissue (fat stores)
2. Describe exercise-induced changes to body systems
   - a. neuromuscular
   - b. cardiorespiratory
   - c. metabolic
   - d. endocrine
   - e. psychological

**D. Special Populations**

1. Determine the capacities and limitations of a client with a specialized need or condition
   - a. age-specific conditions (e.g., older adults, prepubescents, adolescents)
   - b. female-specific conditions (e.g., prenatal, postpartum, postmenopausal)
   - c. individuals with psychological disorders/conditions (e.g., depression, eating disorders)
   - d. individuals with orthopedic disorders/conditions (e.g., arthritis, osteoporosis/osteopenia, amputations, musculoskeletal trauma, rhabdomyolysis)
   - e. individuals with cardiovascular disorders/conditions (e.g., hypertension, hyperlipidemia, post-cardiac rehabilitation, peripheral vascular disease, stroke)
   - f. individuals with metabolic disorders/conditions (e.g., overweight, obese, diabetes, metabolic syndrome)
   - g. individuals with respiratory disorders/conditions (e.g., asthma, chronic obstructive pulmonary disease)
### Cognitive Level:

<table>
<thead>
<tr>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>58</td>
<td>42</td>
<td>140</td>
</tr>
</tbody>
</table>

#### 1. INDIVIDUALS WITH SPECIALIZED NEEDS OR CONDITIONS

- **h.** individuals with neurological disorders (e.g., epilepsy, multiple sclerosis, cerebral palsy, spinal cord injuries, paralysis, Parkinson’s disease, Down’s syndrome, traumatic brain injury)
- **i.** individuals training for a certain sport/competition (e.g., athletes)
- **j.** Individuals with fibromyalgia
- **k.** Individuals with cancer

#### 2. TECHNIQUES OF EXERCISE

Evaluate exercise technique (including body position, speed/control of movement, movement/range of motion, progression, cueing, muscular involvement, breathing, spotting/safety guidelines, and functional movement*)

| A. | Machine Resistance Exercises (e.g., plate-loaded, selectorized, hydraulic, air, friction, tubing) |
| B. | Free Weight Exercises (e.g., barbells, dumbbells) |
| C. | Flexibility Exercises (e.g., static, ballistic, dynamic, PNF, active/isolated stretching) |
| D. | Calisthenic and Body Weight Exercises (e.g., yoga, pull-up, push-up, torso exercises) |
| E. | Sport-specific/Performance-related Activities (e.g., plyometrics, sprinting, agility drills, reaction) |
| F. | Cardiovascular Machines (e.g., treadmill, stationary bike, rowing machine, stair-stepper, elliptical trainer) |
| G. | Non-machine Cardiovascular Activities (e.g., running, walking, swimming, aerobic dancing) |
| H. | Alternative Training Activities (e.g., tire-flipping, weighted carries, sandbags, ropes, chains, stability balls, kettleballs, medicine balls, resistance bands, balance) |

#### 3. SAFETY, EMERGENCY PROCEDURES and LEGAL ISSUES

| A. | Safety Procedures |
| 1. | Maintain exercise equipment |
| 2. | Establish an exercise environment consistent with industry standards |
| 3. | Respond to symptoms of overtraining, overuse injuries, and temperature-induced illness |
| B. | Emergency Response |
| 1. | Perform basic first aid consistent with industry standards |
| 2. | Perform CPR and use an Automated External Defibrillator (AED) consistent with industry standards |
| 3. | Implement a plan to respond to an emergency in an exercise facility (e.g., fire, tornado, medical situation) |
| C. | Professional, Legal and Ethical Responsibility |
| 1. | Recognize litigation issues and circumstances |
| 2. | Maintain a professional client-personal trainer relationship |
| 3. | Maintain client-personal trainer confidentiality |
| 4. | Ensure documentation is maintained related to professional, legal, and ethical responsibilities (e.g., incident reporting, PAR-Q, HIPAA, compliance, facility maintenance requirements) |

*Functional training/exercise is an activity that enhances one’s kinetic duty (movement purpose), improves adaptability, and provides for significant transfer to a target activity and/or daily living.
NSCA-CPT Sample Questions

1. Which of the following describes when the personal trainer should administer a medical history questionnaire to a client?
   A. before the fitness evaluation
   B. immediately after the first exercise session
   C. during the physician’s medical examination

2. A moderate intensity (8-12RM loads) resistance training program involving one minute rest periods between sets and exercises is designed PRIMARILY to improve a client’s
   A. strength.
   B. hypertrophy.
   C. power.

3. A personal trainer offers free sessions to clients who achieve their goals within a predetermined amount of time. Which of the following describes this motivational technique?
   A. intrinsic motivation
   B. achievement motivation
   C. positive reinforcement

4. What is the day’s caloric intake of a client who consumed 100 g of protein, 450 g of carbohydrates, and 40 g of fat in one day?
   A. 5310 kcals
   B. 4180 kcals
   C. 2560 kcals

5. A client’s 10RM in the bench press exercise is 150 lb (68 kg). Which of the following is this client’s estimated 1RM?
   A. 170 lb (77 kg)
   B. 200 lb (91 kg)
   C. 230 lb (105 kg)

Answers: (1) A (2) B (3) C (4) C (5) B
### Appendix J: CSPS Detailed Content Outline and Sample Questions

#### NSCA-CSPS® EXAMINATION

**Detailed Content Outline**

*(2012 version, based on 100 items)*

A shaded box denotes the examination will NOT contain items for the given task at the cognitive level indicated in the respective column (recall, application, or analysis).

<table>
<thead>
<tr>
<th>Cognitive Level</th>
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<tbody>
<tr>
<td>Recall</td>
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<tr>
<td>8</td>
</tr>
</tbody>
</table>

#### 1. BASIC PATHOPHYSIOLOGY AND SCIENCE OF HEALTH STATUS or CONDITION, DISORDER, or DISEASE

**A. Cardiovascular:** Individuals with...

1. Myocardial infarction
2. Angina
3. Hypertension
4. Peripheral vascular disease (e.g., deep vein thrombosis, peripheral artery disease)
5. Congestive heart failure
6. Valvular disorders
7. Revascularizations
8. Conduction defects or disorders (e.g., atrial fibrillation, pacemakers)

**B. Pulmonary:** Individuals with...

1. Chronic obstructive pulmonary disease (COPD) (e.g., emphysema, chronic bronchitis)
2. Chronic restrictive pulmonary disease (CRPD) (e.g., fibrosis, sarcoidosis)
3. Asthma
4. Pulmonary hypertension

**C. Metabolic**

1. Individuals with diabetes mellitus (Type 1 and 2)
2. Individuals who are overfat
3. Individuals with pre-diabetes
4. Individuals who have metabolic syndrome
5. Individuals with thyroid disorders (hypo/hyperthyroidism)
6. Individuals with end stage renal disease

**D. Immunological and Hematological:** Individuals with

1. AIDS/HIV
2. Chronic fatigue syndrome
3. Fibromyalgia
4. Anemia
5. Auto-immune disorders (e.g., lupus, rheumatoid arthritis)
6. Bleeding/clotting disorders

**E. Musculoskeletal/Orthopedic:** Individuals with

1. Osteoporosis and other low BMD conditions
2. Limb amputations
3. Osteoarthritis
4. Lower back conditions
5. Chronic musculoskeletal conditions (e.g., OA, osteoporosis, low back pain)
6. Frailty
7. Joint disorders (e.g., muscle, labrum, ligament, cartilage, tendons)
### Cognitive Level

<table>
<thead>
<tr>
<th>Total # of Questions</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
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</tbody>
</table>

#### 8. Joint replacements (e.g., shoulder, knee, hip)

#### 9. Sarcopenia

#### 10. Posture conditions

#### 11. Cystic fibrosis

#### F. Neuromuscular: Individuals with:

1. Stroke or brain injury
2. Spinal cord disabilities
3. Multiple sclerosis
4. Cerebral palsy
5. Down’s syndrome
6. Parkinson’s disease
7. Epilepsy
8. Balance conditions
9. Muscular dystrophy

#### G. Post Rehabilitation: Individuals with:

1. Musculoskeletal disorders/conditions
2. Cardiopulmonary disorders/conditions
3. Neuromuscular disorders/conditions

#### H. Individuals with Cancer

#### I. Female Specific Conditions

1. Pregnant and postpartum
2. Female athlete triad
3. Menopausal/post-menopausal

#### J. Individuals with Behavioral/Psychological Disorders

1. Disordered eating patterns
2. Body image
3. Depression
4. Chemical dependency

#### K. Older Adults

#### L. Children and Adolescents

#### 2. CLIENT CONSULTATION

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<tr>
<th>6</th>
<th>13</th>
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<th>19</th>
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</thead>
</table>

#### A. Determine the Fitness Professional’s Role in the Wellness Continuum

1. Align goals of the medical professional, client, and fitness professional
2. Maintain lines of communication with the primary healthcare provider
3. Optimize communication between the fitness professional and medical professionals
4. Verify physician’s clearance to exercise

#### B. Perform Health Appraisal

1. Understand basic medical terminology
2. Interpret medical history (e.g., contraindications, continuity of care, goal viability)
### NSCA-CSPS® EXAMINATION

**Detailed Content Outline**

*(2012 version, based on 100 items)*

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<table>
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<tr>
<th>Cognitive Level</th>
<th>Total # of Questions</th>
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<td>Recall</td>
<td>Application</td>
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<tr>
<td>3</td>
<td>18</td>
</tr>
</tbody>
</table>

#### 3. PROGRAM PLANNING

**A. Develop SMART Goals**

1. Manage fear and expectations
2. Increase functional capacity
3. Improve health risk factors (e.g., muscle wasting)
4. Improve confidence and self-image
5. Improve quality of life

---

3. Administer life-style questionnaire
4. Interpret “levels of pain” or prognosis (severity of condition; e.g., kurtzke expanded disability status scale)
5. Interpret medical documentation
6. Document subjective client feedback and observations relevant to medical condition
7. Contact medical professionals for needed information or clarification on medical history, restrictions, etc.
8. Identify signs and symptoms that indicate an individual should be referred for medical care
9. Understand the roles of health professionals that prescribe exercise (e.g., physicians, physical therapists, occupational therapists, athletic trainers)
10. Perform nutritional review

**C. Fitness Evaluation**

1. Conduct fitness evaluation
   - vital signs (e.g., heart rate, blood pressure)
   - height and weight
   - body composition (e.g., “Bod Pod” and DXA reports)
   - girth measurements
   - muscular strength and endurance
   - speed/agility/power
   - cardiovascular endurance (e.g., submaximal VO2 max test on treadmill and bike)
   - flexibility
   - lipid profile
   - lung function
   - postural assessment
   - balance
   - functional assessment
   - evaluations specific for individuals with limited ability (e.g., 6-min walk, modified sit-and-reach from a chair, 8 lb. curl test, chair stands)

1. Prioritize need for clients with multiple diseases
2. Adjust fitness evaluation based on medical conditions and restrictions
3. Determine testing measures for the client
4. Document client progression with objective and subjective criteria
<table>
<thead>
<tr>
<th>B. Program Design</th>
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<tbody>
<tr>
<td>1. Develop individual training programs that are adapted to specific health</td>
</tr>
<tr>
<td>condition (types, duration, frequency, intensity, progression, rest)</td>
</tr>
<tr>
<td>2. Develop group training programs that are adapted to specific health</td>
</tr>
<tr>
<td>condition (types, duration, frequency, intensity, progression, rest)</td>
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<tr>
<td>3. Identify exercises indicated and contraindicated for client’s condition</td>
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<tr>
<td>4. Identify environmental risks (e.g., MS and heat tolerance)</td>
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<tr>
<td>5. Evaluate communicable disease risk (client to fitness professional OR fitness</td>
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<tr>
<td>professional to client)</td>
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<tr>
<td>6. Modify the warm-up and cool-down program to coincide with the limitations and</td>
</tr>
<tr>
<td>capacities of a client</td>
</tr>
<tr>
<td>7. Modify the exercise program to coincide with the limitations and capacities</td>
</tr>
<tr>
<td>of a client</td>
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<tr>
<td>8. Instruct a client on therapeutic exercise technique and equipment (including</td>
</tr>
<tr>
<td>body position, speed/control of movement, movement/range of motion, breathing,</td>
</tr>
<tr>
<td>and spotting/safety guidelines)</td>
</tr>
<tr>
<td>a. aquatic</td>
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<tr>
<td>b. range of motion</td>
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<td>c. exercise with accessory equipment (e.g., chairs, walker/cane, gait belt)</td>
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<tr>
<td>d. balance/perurbation training</td>
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<td>e. partner-assisted (support person and conduction exercises beyond the medical</td>
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<tr>
<td>fitness center/facility, or how they can help during the process of exercise)</td>
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<tr>
<td>f. home programs</td>
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<tr>
<td>9. Understand exercise-induced changes to body systems</td>
</tr>
<tr>
<td>a. neuromuscular system</td>
</tr>
<tr>
<td>b. cardiorespiratory system</td>
</tr>
<tr>
<td>c. musculoskeletal system</td>
</tr>
<tr>
<td>d. endocrine</td>
</tr>
<tr>
<td>e. psychological</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Apply Motivational/Coaching Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motivational interviewing</td>
</tr>
<tr>
<td>2. Stages of change</td>
</tr>
<tr>
<td>3. Transtheoretical model</td>
</tr>
<tr>
<td>4. Behavioral economics</td>
</tr>
<tr>
<td>5. Planned behavior theory</td>
</tr>
<tr>
<td>6. Cognitive theory</td>
</tr>
<tr>
<td>7. Relapse prevention</td>
</tr>
<tr>
<td>8. Positive psychology</td>
</tr>
<tr>
<td>9. Solution-focused coaching</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Monitor Client Outcomes</th>
</tr>
</thead>
</table>

| E. Recognize Need for Referral to Healthcare Professional                        |

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total # of Questions</th>
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</table>

*(2012 version, based on 100 items)*

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NSCA-CSPS® EXAMINATION
Detailed Content Outline

(2012 version, based on 100 items)
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<table>
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<th>Analysis</th>
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<tr>
<td>4. SAFETY, EMERGENCY PROCEDURES, AND LEGAL ISSUES</td>
<td>4</td>
<td>6</td>
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<td>10</td>
</tr>
<tr>
<td>A. Comply with Scope of Practice Requirements</td>
<td></td>
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</tr>
<tr>
<td>B. Practice Safety Procedures</td>
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<tr>
<td>C. Follow Emergency Procedures</td>
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<tr>
<td>D. Recognize Professional, Legal, and Ethical Responsibilities</td>
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<tr>
<td>E. Comply with HIPAA regulations</td>
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<tr>
<td>TOTAL ITEMS</td>
<td>21</td>
<td>59</td>
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</table>
CSPS Sample Questions

1. The initial strength training program for a client with Stage I hypertension should include which of the following variables?

<table>
<thead>
<tr>
<th>Reps</th>
<th>% 1RM</th>
<th>Rest Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>B.</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>C.</td>
<td>20</td>
<td>50</td>
</tr>
</tbody>
</table>

2. Which of the following exercises are CONTRAINDIATED for a client who suffers from spondylolysis?

A. lying trunk extension
B. lat pulldown
C. abdominal curls

3. A 25-year-old male client visits his physician because he wants to begin an exercise program. Results of a maximal graded exercise test indicate he has episodes of supraventricular tachycardia at a heart rate of 160 bpm. The physician clears him for exercise. Based on this information, which of the following should the fitness professional do?

A. Perform a cardiorespiratory evaluation up to 85% of the age-predicted HRmax.
B. Recommend a heart-healthy diet and begin a low intensity exercise program.
C. Conduct a fitness examination using 150 bpm as the maximum heart rate.

4. A client has been medically diagnosed as having tendonitis of the supraspinatus. Which of the following exercises is CONTRAINDIATED?

A. supine triceps extension
B. dumbbell pullover
C. seated row

SCENARIO

A new 45-year-old female client is a business owner and has three small children. Her medical history reveals the following:

- Height: 5 ft 5 in. (165 cm)
- Weight: 220 lb (100 kg)
- TC: 290 mg/dL
- Triglycerides: 214 mg/dL
- ECG: Normal
- Blood pressure: 50/100 mm Hg
- Resting heart rate: 68 bpm
- Maximum heart rate: 179 bpm
- Additional history: Congenital heart murmur
- Gained 80 lb (36.3 kg) within the last 2 years
- Family history: Mother had a malignant breast tumor removed
- Aunt died of breast cancer at age 41
- No family history of coronary artery disease
- Her primary goals are to “get healthy” and “increase stamina” to keep up with her children. The client states that she feels very flexible in her low back and legs. Her ankles sometimes swell. She owns a treadmill and enjoys walking.

END OF SCENARIO

5. Which of the following is this client’s major coronary risk factor?

A. known heart murmur
B. diastolic blood pressure of more than 90 mm Hg
C. ankle edema

Answers: (1) C (2) A (3) C (4) B (5) B
## Appendix K: TSAC-F Detailed Content Outline and Sample Questions

### Tactical Strength and Conditioning Facilitator (TSAC-F)
#### Detailed Content Outline

130 Items

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Total # of Questions</th>
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<tbody>
<tr>
<td>Recall</td>
<td>Application</td>
</tr>
<tr>
<td>9</td>
<td>15</td>
</tr>
</tbody>
</table>

### I. EXERCISE SCIENCES

#### A. Apply General Concepts of Anatomy and Physiology

1. Muscle anatomy (e.g., muscle group names, specific muscle names)
2. Muscular dynamics involved during movement patterns (e.g., types of muscle action)
3. Bone and connective tissue anatomy
4. Bone and connective tissue responses to exercise
5. Cardiopulmonary anatomy (e.g., heart and vascular structure, lungs and respiratory system structure)
6. Cardiopulmonary responses to exercise

#### B. Apply Basic Concepts of Neuromuscular Anatomy and Physiology

1. Neuromuscular anatomy (e.g., motor unit, Type I and II fibers, muscle spindles, Golgi tendon organs)
2. Neuromuscular responses to exercise (e.g., chronic neuromuscular adaptations, motor unit recruitment patterns, nerve conduction, summation)

#### C. Apply the Basic Principles of Biomechanics Regarding Exercise Selection, Execution, and Operation/Mission Performance

1. Kinetic laws and principles of movement (e.g., lever systems, momentum, work, isometric/isotonic/isokinetic)
2. Kinematic laws and principles of movement (e.g., velocity, anatomical planes of movement, joint angles)
3. Various types of muscle action (isometric, concentric, and eccentric) and the force-velocity and torque-velocity relationships
4. Role of muscles in movement (e.g., agonist, antagonist, synergist, stabilizer)

#### D. Describe Bioenergetics and Metabolism (e.g., names and characteristics of energy systems, effects of manipulating training variables)

#### E. Describe Physiological Adaptations to Exercise Designed to Improve...

1. Aerobic endurance
2. Muscular endurance
3. Strength
4. Speed
5. Power

#### F. Explain Detraining and Retraining

1. The usual time course of detraining and retraining
2. Minimum training requirements to maintain training adaptations

#### G. Explain the Expected Anatomical, Physiological, and Biomechanical Differences of Tactical Athletes (e.g., age, gender, training status, position responsibilities, specific operation/mission or activity)

#### H. Correlate Phases of Rehab (e.g., protection, controlled motion, return to function) with Tissue Healing Phases (e.g., inflammation, repair, remodel)
<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total # of Questions</th>
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</thead>
<tbody>
<tr>
<td>I. Identify Environmental Concerns (e.g., heat, cold, altitude, smoke, uneven terrain) for Tactical Athletes</td>
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</tr>
<tr>
<td>1. Physiological response to exercise in adverse conditions</td>
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<tr>
<td>2. Environmental illnesses (e.g., heat stroke, hypothermia) and their predisposing factors</td>
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<tr>
<td>3. Effects on physical performance and work capacity</td>
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<tr>
<td>4. Process and time course of acclimatization/adjustment</td>
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<td>5. Recommended limitations to physical exercise in adverse conditions</td>
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<tr>
<td>6. Impact of body composition on tolerance</td>
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<tr>
<td>7. Apparel for exercise</td>
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<tr>
<td>8. Manipulation of training programs when training in adverse conditions</td>
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<tr>
<td>II. NUTRITION</td>
<td>9</td>
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<td>13</td>
</tr>
<tr>
<td>A. Explain Nutritional Factors Affecting Health and Performance</td>
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<tr>
<td>1. Health-related and performance-related application of food (e.g., food groups, food exchanges, ChooseMyPlate.gov, nutrient density, glycemic load)</td>
<td></td>
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<tr>
<td>2. Basic nutritional needs of individuals and the unique nutritional needs of conventional military and special operations and emergency personnel (e.g., proteins, carbohydrates, vitamins, minerals)</td>
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<tr>
<td>3. Caloric expenditure during various forms of exercise</td>
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<tr>
<td>4. Coronary artery disease risk factors associated with dietary choices and obesity (e.g., cholesterol, triglycerides, saturated fat)</td>
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<tr>
<td>5. Effects of fluid and electrolyte balance/imbalance on health and performance</td>
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<tr>
<td>B. Explain Nutritional Strategies for Optimizing Body Composition and Maximizing Physical Performance and Recovery</td>
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</tr>
<tr>
<td>1. Nutritional strategies for fat loss and gain and lean body mass increase</td>
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<tr>
<td>2. Timing and composition of nutrient and fluid intake before, during, and after an exercise session or operation/mission</td>
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<tr>
<td>3. Nutritional factors that affect muscular endurance, hypertrophy, strength, and aerobic endurance</td>
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<tr>
<td>4. Nutrition requirements during deployment and shift work</td>
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<tr>
<td>a. effects of prolonged periods operating on a caloric deficit (deployment or prolonged emergency response)</td>
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<tr>
<td>b. nutritional strategies for coping with unpredictability of access to food and water</td>
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<tr>
<td>C. Describe Signs, Symptoms, Behaviors, and Performance Variations Associated with Obesity, and Altered Eating Habits and Disorders</td>
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<tr>
<td>D. Explain the Effects, Risks, and Alternative of Common Performance-Enhancing Substances, Supplements, and their Methods of Use (e.g., creatine, protein, anabolic steroids, blood doping, caffeine, supplemental oxygen)</td>
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<tr>
<td>1. Effects of ergogenic aids on performance</td>
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<tr>
<td>2. Side effects of ergogenic aids</td>
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<tr>
<td>3. Signs and symptoms of ergogenic aid abuse</td>
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</tr>
</tbody>
</table>
### III. EXERCISE TECHNIQUE

Teach safe and effective techniques including preparatory body and limb position (stance, posture, alignment), execution of technique (body and limb positions, movement mechanics, breathing), correction of improper exercise technique, and spotting for...

<table>
<thead>
<tr>
<th>Item</th>
<th>Cognitive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Warming Up Prior to Endurance Exercise, Resistance Training, Plyometric Exercise, and Speed Work</td>
<td>6</td>
</tr>
<tr>
<td>B. Resistance Training Exercise Technique</td>
<td></td>
</tr>
<tr>
<td>1. Free weight training equipment</td>
<td>20</td>
</tr>
<tr>
<td>2. Resistance machines</td>
<td>0</td>
</tr>
<tr>
<td>C. Alternative Modes (e.g., proximal stability, stability balance, calisthenics under load, bodyweight-only, functional), Alternative Implements (e.g., truck tires, sledge hammers, heavy ropes, logs, suspension straps, sand bags), and Alternative Environments (e.g., off camber, uneven terrain) for Physical Training</td>
<td>26</td>
</tr>
<tr>
<td>D. Plyometric Exercise Technique Including Recommendation of Type, Frequency, and Volume of Exercise Based on Training Status and Goals</td>
<td></td>
</tr>
<tr>
<td>E. Speed/Sprint Technique (e.g., resisted and assisted sprinting, speed-strength) Both With and Without Operational Equipment (e.g., firefighting equipment, protective vests, weapons, rucksack) Including Training Needs of Specific Conventional Military and Special Operations and Emergency Personnel</td>
<td></td>
</tr>
<tr>
<td>F. General Agility Technique (e.g., forward, backward, lateral, turn, transition, change of direction) Including Training Needs of Specific Conventional Military and Special Operations and Emergency Personnel</td>
<td></td>
</tr>
<tr>
<td>G. Aerobic Endurance Exercise Technique</td>
<td></td>
</tr>
<tr>
<td>1. Cardiovascular equipment including machine programming and set-up</td>
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<tr>
<td>2. Functional endurance activities</td>
<td></td>
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<tr>
<td>H. Flexibility Exercise Technique</td>
<td></td>
</tr>
<tr>
<td>1. Static stretching exercises</td>
<td></td>
</tr>
<tr>
<td>2. Proprioceptive neuromuscular facilitation (PNF) stretching exercises</td>
<td></td>
</tr>
<tr>
<td>3. Dynamic and ballistic stretching exercises</td>
<td></td>
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<tr>
<td>4. Myofascial release (e.g., foam rolling)</td>
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</tbody>
</table>

### IV. PROGRAM DESIGN

5. Based on a Tactical Athlete’s Health Status, Strength and Conditioning Level, Work Demands, and Individual Training Goals, Design Training Programs that Maximize Performance, Reduce Injury Risk, and Increase Long-Term Wellness by Selecting Exercises Based on Muscle Groups, Movement Pattern, and Job Specificity...

<table>
<thead>
<tr>
<th>Item</th>
<th>Cognitive Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Targeting specific energy systems by manipulating training variables (e.g., mode, intensity, duration, volume, work:rest ratio)</td>
<td>5</td>
</tr>
<tr>
<td>2. Incorporating various training methods and modes (e.g., resistance, plyometric, speed/sprint, agility, aerobic, flexibility, anaerobic threshold)</td>
<td>19</td>
</tr>
<tr>
<td>3. Utilizing the concept of specificity</td>
<td>22</td>
</tr>
<tr>
<td>4. Maximizing muscle balance</td>
<td>46</td>
</tr>
<tr>
<td>5. Applying the principles of exercise order</td>
<td></td>
</tr>
<tr>
<td>a. selection of the order of exercises based on the training goal (e.g., muscular endurance, hypertrophy, strength, power, aerobic endurance)</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Cognitive Level</td>
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<tr>
<td>------</td>
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</tr>
<tr>
<td>b. application of various exercise orders (e.g., large to small muscle groups, alternating push with pull, warm-up/workout/cool-down)</td>
<td>Recall</td>
</tr>
<tr>
<td>6. Determining and assigning appropriate exercise intensities</td>
<td>Application</td>
</tr>
<tr>
<td>a. based on exercise or predicted heart rate</td>
<td>Analysis</td>
</tr>
<tr>
<td>b. based on training goal</td>
<td>Total # of Questions</td>
</tr>
<tr>
<td>7. Determining and assigning appropriate training volumes</td>
<td>Recall</td>
</tr>
<tr>
<td>a. identification of outcomes associated with the manipulation of training volume</td>
<td>Application</td>
</tr>
<tr>
<td>b. determination of volume based on the training goal</td>
<td>Analysis</td>
</tr>
<tr>
<td>8. Determining and assigning appropriate work periods/duration, rest periods, and training frequencies</td>
<td>Recall</td>
</tr>
<tr>
<td>a. determination of duration, intensity, and work/rest patterns based on micro-, meso-, and macrocycles and training goals</td>
<td>Application</td>
</tr>
<tr>
<td>b. identification of a training load based on work schedule and optimization of recovery</td>
<td>Analysis</td>
</tr>
<tr>
<td>9. Determining and assigning appropriate exercise progression</td>
<td>Recall</td>
</tr>
<tr>
<td>a. determination of exercise mode, intensity, duration, and frequency progression to avoid stagnation and overtraining (on or off-shift)</td>
<td>Application</td>
</tr>
<tr>
<td>b. determination of an exercise progression based on the training goal</td>
<td>Analysis</td>
</tr>
<tr>
<td>10. Applying the principles of periodization</td>
<td>Recall</td>
</tr>
<tr>
<td>a. selection of training variations based on operation/mission/season</td>
<td>Application</td>
</tr>
<tr>
<td>b. design of a periodized training program specific to the demands of an operation/mission or occupation</td>
<td>Analysis</td>
</tr>
<tr>
<td>c. design of a periodized training program specific to an operator’s training level</td>
<td>Total # of Questions</td>
</tr>
<tr>
<td>d. selection of linear (traditional) and non-linear periodization (non-traditional, concurrent training), and Block training</td>
<td></td>
</tr>
<tr>
<td>11. Implementation of flexibility training</td>
<td>Recall</td>
</tr>
<tr>
<td>a. proper timing during a training session</td>
<td>Application</td>
</tr>
<tr>
<td>b. selection of type</td>
<td>Analysis</td>
</tr>
</tbody>
</table>

B. Design Training Programs for an Injured Tactical Athlete to Maintain Training Status During the Rehabilitation and Reconditioning Period (e.g., assign safe and appropriate exercises for a given injury or condition under the direction of an athletic trainer, physical therapist, physician)

1. Identification of training objectives for each phase of rehabilitation (e.g., protection, controlled motion, return to function)
2. Modification of exercises to allow injured tactical athlete to continue training as appropriate (e.g., unilateral lifts)
3. Monitoring progress of injured tactical athletes through functional assessment

C. Population Specific Considerations (E.G., firefighters, first responders, law enforcement, SWAT)

1. Describe Effects of Body Composition on Occupation-Related Tasks
2. Identify Methods by Which Force Output of Muscle Can Be Increased for Occupation-Related Specific Tasks
<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Total # of Questions</th>
</tr>
</thead>
</table>

### 3. Describe Impacts of Equipment Load on Biomechanical Demands and Movement Patterns, and the Development of Functional Training Choices

### 4. Identify Anaerobic Training Methods Specific to Occupation-Specific Tasks

### 5. Identify Aerobic Training Methods Specific to Occupation-Specific Tasks

### 6. Describe Effects of Environmental Concerns on Physical Work Capacity

### 7. Recognize Common Injury Prevalence and Risk Factors Across Different Disciplines (e.g., wildland, police) and Sub-Disciplines (e.g., engine crews, trunk crews, hotshot crews, SWAT)

### 8. Explain Responses of Bone, Muscle, and Connective Tissue to Occupation-Related Job Tasks Under Load

### 9. Explain Acute Responses and Chronic Adaptations of the Endocrine and Cardiovascular Systems to Occupation-Related Job Tasks in High Stress Situations

### 10. Recognize the Causes, Signs, Symptoms, and Effects of Overtraining Caused by Occupation-Related Work Environments

### 11. Describe Advantages and Disadvantages of Performing Physical Training While On- and Off-Duty

### 12. Describe Common Chronic Injuries/Diseases

### 13. Select Wellness Strategies to Decrease Risk of Heart Disease Considering Nutritional Intake, Physical Activity, Stress Reduction, Smoking Cessation, Sleep Deprivation, etc.

   - a. identify critical job tasks
   - b. discuss physiological, movement, and injury analyses as they apply to each critical task
   - c. design a periodized program based on the job task analysis

### 15. Design Physical Training Programs to Optimize Load Carriage
   - a. improvement of short duration, high intensity load bearing
   - b. improvement of long duration, low intensity load bearing
   - c. improvement of mission-related heavy lifting
   - d. improvement of mission-related submaximal lifting and carrying

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### V. ORGANIZATION, ADMINISTRATION, TESTING, EVALUATION

#### A. Organization and Administration

1. **Design, Layout, and Organization of the Training Facility**
   - a. identify specific space and equipment needs of the population(s) (e.g., conventional military, special operations, emergency personnel) that will use the facility
   - b. apply strategies to arrange and space the equipment within/without the facility

2. **Policies and Procedures of the Training Facility**
   - a. identify the primary duties and responsibilities of the various personnel of the training facility
Tactical Strength and Conditioning Facilitator (TSAC-F)

Detailed Content Outline

130 Items

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Recall</th>
<th>Application</th>
<th>Analysis</th>
<th>Total # of Questions</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Safe Training Environment</td>
</tr>
<tr>
<td>a.</td>
<td>establish pre-participation screening requirements for the target population</td>
</tr>
<tr>
<td>b.</td>
<td>establish checklists and schedules for equipment maintenance and cleaning</td>
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<tr>
<td>c.</td>
<td>identify common litigation issues and methods for reducing and/or minimizing the risk of liability within the facility</td>
</tr>
<tr>
<td>d.</td>
<td>obtain insurance coverage</td>
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<tr>
<td>e.</td>
<td>establish procedures to respond to emergencies in the training environment</td>
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<tr>
<td>f.</td>
<td>recognize symptoms related to overuse and acute training injuries, and overtraining</td>
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<tr>
<td>g.</td>
<td>recognize when to refer a tactical athlete to another professional (e.g., athletic trainer, physical therapist, physician, registered dietitian)</td>
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<tr>
<td>h.</td>
<td>establish procedures for recording the type, severity, and mechanism of injuries that occur during physical training</td>
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<tr>
<td>i.</td>
<td>modify the facility or program to enhance training safety</td>
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<tr>
<td>4.</td>
<td>Establish Policies with the Department or Agency Supervisors Regarding the Type of Data Generated from the Program and the Frequency with which It Is Collected (e.g., improvements in physical fitness, participation rates)</td>
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<tr>
<td>5.</td>
<td>Create a Training Log</td>
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<tr>
<td>6.</td>
<td>Describe the Dynamics/Logistical Considerations of Training Large Groups (e.g., limited equipment, on “heavy days”, circuit training, inexperienced tactical athletes)</td>
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</table>

B. Testing and Evaluation

1. Test Administration
   a. describe tests used by tactical organizations (e.g., Army Combat Readiness Test) |
   b. select tests based upon the unique aspects of the tactical athlete’s work demands and training status |
   c. develop alternative tests for injured/restricted individuals |
   d. organize testing procedures to efficiently use equipment, personnel, and time |
   e. establish a plan for testing frequency integrated within the overall periodized program |
   f. explain testing equipment and procedures to tactical athletes |
   g. administer testing protocols and procedures to ensure reliable data collection |

2. Evaluation of Results
   a. discuss criteria for rating test performance |
   b. use test results to design or modify training programs |
<table>
<thead>
<tr>
<th>Cognitive Level</th>
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<th>Total # of Questions</th>
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<tbody>
<tr>
<td>c. coach a tactical athlete who is not performing to departmental physical performance standards</td>
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<tr>
<td>d. use psychological and motivational techniques to enhance training and performance</td>
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<td>e. discuss pass/fail rates</td>
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<tr>
<td>Totals</td>
<td>37</td>
<td>67</td>
<td>26</td>
<td>130</td>
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</table>
TSAC-F Sample Questions

1. Compared to a standard pull-up, the concentric force generated by the latissimus dorsi muscle during a kipping pull-up is
   A. higher.
   B. lower.
   C. equal.

2. Which of the following pairs of exercises will BEST help a firefighter develop the type of strength needed when walking downhill while carrying heavy pack loads?
   A. half-squats, slow lunges
   B. power cleans, depth jumps
   C. deadlift, bench press

3. Which of the following will improve bone density the MOST?
   A. bicycle
   B. treadmill
   C. elliptical

4. Which of the following actions can lead to hyponatremia during exercise in the heat?
   A. drinking too much water
   B. drinking too little water
   C. consuming salt tablets

5. Which of the following activities would benefit the most from erythropoietin (EPO) use?
   A. 200-m sprint
   B. 15 box jumps
   C. 15-mile bike ride

Answers: (1) B (2) A (3) B (4) A (5) C