

Quiz Policies

Eligibility

The NCSF online quizzes are open to any currently certified fitness professional, 18 years or older.

Deadlines

Course completion deadlines correspond with the NCSF Certified Professionals certification expiration date. Students can obtain their expiration dates by reviewing either their certification diploma or certification ID card.

Cancellation/Refund

All NCSF continued education course studies are non-refundable.

General Quiz Rules

- You may not have your quiz back after sending it in.
- Individuals can only take a specific quiz once for continued education units.
- Impersonation of another candidate will result in disqualification from the program without refund.

Disqualification

If disqualified for any of the above-mentioned reasons you may appeal the decision in writing within two weeks of the disqualification date.

Reporting Policy

You will receive your scores within 4 weeks following the quiz. If you do not receive the results after 4 weeks please contact the NCSF Certifying Agency.

Re-testing Procedure

Students who do not successfully pass an online quiz have the option of re-taking. The fees associated with this procedure total \$15 (U.S) per request. There are no limits as to the number of times a student may re-test.

Special Needs

If special needs are required to take the quiz please contact the NCSF so that appropriate measures can be taken for your consideration.

Quiz Rules

What Do I Mail Back to the NCSF?

Students are required to submit the quiz answer form.

What do I Need to Score on the Quiz?

In order to gain the .5 NCSF continued education units students need to score 80% (8 out of 10) or greater on the CEU quiz.

Where Do I Mail My Quiz Answer Form?

You will mail your completed answer form to:

NCSF

Attn: Dept. of Continuing Education

5915 Ponce de Leon Blvd., Suite 60

Coral Gables, FL 33146

How Many CEUs Will I Gain?

Professionals who successfully complete the any continuing education quiz will gain .5 NCSF CEUs per quiz.

How Much does each quiz cost?

Each quiz costs the student \$15.00.

What Will I Receive When The Course Is Completed?

Students who successfully pass any of the NCSF online quizzes will receive their exam scores, and a confirmation letter.

How Many Times Can I Take The Quizzes For CEUs?

Individuals can take each NCSF quiz once for continuing education credits.

Understanding Exercise Order

There are so many variables to programming exercise that proper design can be challenging and sometimes confusing, even for experienced trainers. Analysis of proper programming requires a review of program principles, exercise principles, and their respective application relative to a client's needs and capabilities. When programming for personal training clients the difficulty is increased because contact time is limited and numerous stress variables are necessary to produce the various adaptation response. This takes the tradition out of traditional programming. One way to make the programming easier is to utilize a system for defining the implementation of the exercises selected for the client based on need. This suggests modifying the order of the exercises so that they accomplish the appropriate stress and can be integrated into the program logically, safely and effectively.

Exercise order based on a traditional approach reflects a continuum of hard to easy, complex to simple, heavy to light, and fast to slow. This suggests performing squats before step ups, walking lunges before leg curls, leg press before leg extension and plyometrics before slow dynamics. This seems like an easy enough strategy to follow however, questions often arise when the exercises are aimed at a variety of goals rather than just a single purpose such as strength, hypertrophy, or local muscular endurance. For example, a traditional approach to training would look as follows:

Leg Strength

Squat	3x8	80% 1RM
Leg press	3x6-8	80-85% 1RM
Romanian Deadlift	3x10	75% 1RM
Lunge with Rotation	3x	10 lb med ball
Leg curls	3x8-10	75-80% 1RM
Calf raise	3x12	70% 1RM

Total Body Strength

Deadlift	3x6	85% 1RM
Bench Press	3x6-8	80-85% 1RM
Military Press	3x8	77.5% 1RM
Seated Row	3x10	75% 1RM
Step ups	3x10	60% 1RM
Dips	3x12	Bodyweight

These traditional exercise programs make sense as the heavy, cross-joint exercises occur before the less difficult, lighter movements. But what if the exercises remain the same, but are performed with lighter weight or more complexity or require less emphasis for the purposes of improving the client? Rearranging the order then becomes more complicated as different variables come into play. Let's assume an individual was looking for improvement in functional power, overall strength, improved movement range and better strength balance. The multiple need approach requires a variety of stress applied in the same training session. So what becomes most important when multiple factors need to be accounted for? Is it power movements before strength exercises or complex movements before fast movements? What are the defining characteristics that direct the appropriate order of exercises? To ascertain the correct order specific to a particular client's needs requires a thoughtful analysis. Asking the following questions may better guide the direction to pursue with regard to the exercise prescription.

- Is the exercise risk high or low?
- Are stabilizers a key component to the activity?
- How much neural economy is needed for proper implementation?
- Is weight or speed an important factor for successful performance?
- What effect does fatigue have on the exercise?

If the exercise presents an assumable risk it should be placed toward the beginning of the exercise session so that factors such as fatigue and focus do not negatively impact the performance. Stabilizers are also an important issue as they often reflect the weak link in the kinetic chain. If stabilizers are pre-fatigued, then prime movers cannot exert the necessary force to create overload and faulty movement patterns may occur, sometimes resulting in injury. Neural economy presents similar consideration as fatigue affects neural pathways. Exercises that require coordinated movement patterns can be compromised if performed following heightened peripheral fatigue. If weight or speed is necessary to create the desirable stress then the placement of these exercises in the program should be consistent with the overload intensity. Heavier movements or velocity specific demand suggest early placement in the order sequence.

In some cases, answering the above questions provides adequate information to support proper placement in the program. More often than not a general idea of where the exercise should go is established prior to actually writing an exercise prescription, but more thought is required to identify the ideal order for each individual client and where they are along the training cycle. One technique that can be used to create the most desirable order is the assignment of a stress value. This concept suggests creating a continuum of difficulty with a numerical value representing its place along the stress gradient. For example, the back squat is a challenging exercise for many people to perform correctly. Likewise when performed for strength improvements the resistance can be quite significant which often dictates its early presence in the overall exercise order. But what if the exercise is done with 50% of 1RM rather than 80%? Does it justify the same location in the exercise sequence? Obviously not, therefore respecting its difficulty, but reducing the concerns pertaining to the weight, justifies the exercise being located later in the session. Using this scenario with a point system allows programmers to define an exercises' correct location in a program.

Back squat difficulty	4 out of 5
Back squat weight 50% 1RM	2.5 out of 5
Stabilizer requirement	2 out of 3
Risk for injury	1.5 out of 3
Fatigue concerns	2 out of 3
Total value	12

Now that a value has been assigned it can be compared to other exercises in the program and ordered based on multiple factors. Assuming the back squat was going to be compared with box jumps in the same exercise session the value can reflect its position in order.

Box jump difficulty	3.5 out of 5
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Box jump height 70% of max	3.5 out of 5
Stabilizer requirements	1.5 out of 3
Risk for injury	3 out of 3
Fatigue concerns	3 out of 3
Total value	14.5

In this case the 70% of max height box jump is a more difficult and a higher risk exercise than the 50% 1RM squat. Therefore the box jumps would be performed before the back squat. However, if the squat weight was increased to 80% 1RM, the difficulty, risk for injury and stabilizer requirements all increase, which would warrant a move to the front of the exercises order and it may be prudent to lower the box jump height if the squat intensity is being emphasized. Now consider a group of movements used in an exercise training bout for multiple purposes:

Physioball leg curl	
Difficulty	2.5 out of 5
Intensity	2 out of 5
Stabilizer requirements	2 out of 3
Risk for injury	1 out of 3
Fatigue concerns	2 out of 3
Total Value	9.5

Alternating dumbbell press	
Difficulty	3.5 out of 5
Intensity 70%1RM	3.5 out of 5
Stabilizer requirements	1.5 out of 3
Risk for injury	1 out of 3
Fatigue concerns	2 out of 3
Total Value	11.5

Modified pull-up	
Difficulty	3 out of 5
Intensity 50% body weight	2.5 out of 5
Stabilizer requirements	2 out of 3
Risk for injury	1 out of 3
Fatigue concerns	1 out of 3
Total Value	9.5

MB overhead lunge	
Difficulty	3 out of 5
Intensity	2 out of 5
Stabilizer requirements	3 out of 3
Risk for injury	2 out of 3
Fatigue concerns	3 out of 3
Total Value	13

Cable torso twist	
Difficulty	2.5 out of 5
Intensity	2.5 out of 5
Stabilizer requirements	1.5 out of 3
Risk for injury	1 out of 3
Fatigue concerns	1 out of 3
Total Value	8.5

Based on these findings the correct exercise order would be:

1. MB Overhead Lunge
2. Alternating DB press
3. Physioball Leg Curl or Modified Pull-ups
4. Cable torso twist

You will see that the modified pull-ups at 50% of body weight equaled the value of the leg curl on the ball. This suggests making a professional judgment based on the client's proficiency, experience, strength and overall need. If they have good upper body strength but a weak middle you would side with the phygioball leg curls first. If they have good trunk stability and a weaker upper body the modified pull-ups would make more sense. Obviously there is plenty of professional opinion built into the validity of the concept but using this method certainly assists fitness professionals in making educated decisions based on factors that affect performance, effectiveness, and safety. Having experience with the physiological demands of the exercises employed is important to making correct value assignment. For this reason asking your clients to define an RPE for the exercises they engage in will help identify perceived difficulty and may identify additional criteria not previously apparent by other assessments.

Understanding Exercise Order – CEU Quiz

1. Which of the following factors should be the primary determinant of exercise order within a program?
 - a. How strong a client is
 - b. The specific muscle being emphasized
 - c. The client's needs
 - d. The client's interest

2. Select the correct progression of exercises based upon the traditional approach.
 - a. Simple, fast, light
 - b. Complex, slow, light
 - c. Complex, fast, and heavy
 - d. Insufficient information

3. Base upon the traditional exercise order approach, select the correct progression of lower body exercises from first to last.
 - a. Calf raise, leg extension, Romanian deadlift, squat
 - b. Romanian deadlift, calf raise, squat, leg extension
 - c. Squat, Romanian deadlift, leg extension, calf raise
 - d. Squat, calf raise, leg extension, Romanian deadlift

4. Using the traditional exercise order approach, select the list from below that contains the correct exercise order from start to finish.
 - a. Bench press, triceps pushdown, chest flyes
 - b. Chest flyes, triceps pushdown, bench press
 - c. Triceps pushdown, bench press, chest flyes
 - d. Bench press, chest flyes, triceps pushdown

5. The multiple need approach to exercise order assigns a value for which of the following factors?
 - a. Risk
 - b. Stabilizers
 - c. Fatigue
 - d. All of the above are considered

6. If the back squat is examined utilizing the multiple need approach what change would require a move of the squat from the first exercise to somewhere in the middle of the program?
 - a. Increasing the weight used from 80%1RM to 90%1RM
 - b. Decreasing the weight used from 80%1RM to 50%1RM
 - c. Nothing, the squat should always be the first exercise
 - d. The client has poor lower body strength and will experience fatigue after the performance of the squat

7. When the evaluation of two exercises result in the same Total Value based upon the multiple need approach, it is said that professional judgment will determine the order. What does this mean?
 - a. The decision is based upon available equipment
 - b. The decision is alternated from day to day
 - c. The decision needs to examine relative strengths/weaknesses of the client and address weaknesses first
 - d. The decision should be left to the client

8. Which of the following will result in a lower Total Value based upon the multiple need approach for a chest press activity?
 - a. Switching from a barbell to dumbbells
 - b. Decreasing the weight from 80%1RM to 60%1RM
 - c. Performing the exercise on a physioball
 - d. Performing the exercise unilaterally

9. If using the multiple need approach, the trainer must have experience with the _____ of the exercise in order to properly assign a correct value.
 - a. Client
 - b. Equipment
 - c. Physiological stress
 - d. Psychological stress

10. Asking clients to use RPE will be beneficial for trainers to determine the perceived difficulty of each exercise.
 - a. True
 - b. False

Quiz Answer Form

FIRST NAME _____ LAST NAME _____ M.I. _____

TITLE _____

ADDRESS _____ APT. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COUNTRY _____ POSTAL CODE _____

CERTIFICATION NO. _____ CERTIFICATION EXP. ____/____/____

MEMBERSHIP NO. _____ MEMBERSHIP EXP. ____/____/____

Quiz Name	Member Price	Total
	\$15	



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Account No. _____

Exp. Date _____

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Signature _____

Date _____

Quiz Answers

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

Fill in each blank with the correct choice on the answer sheet. To receive 0.5 CEUs, you must answer 8 of the 10 questions correctly.

Please mail this Quiz answer form along with the proper enclosed payment to:

NCSF
5915 Ponce de Leon Blvd., Suite 60
Coral Gables, FL 33146

Questions? 800-772-NCSF