



## **National Fitness Leadership Alliance**

### **Resistance Training Leadership Performance Standards**

**The National Fitness Leadership Alliance (NFLA) Mission/Mandate is as follows: The NFLA is a Canadian partnership dedicated to developing, promoting and implementing national standards for training and certification of fitness leaders in Canada.**

The standards are intended to guide course curriculum development and ongoing education initiatives and will provide a minimum set of standards dealing with the knowledge, skills, and values of basic Fitness Leaders. The Performance Standards are intended, as well, to provide a common base from which to design, validate or upgrade examination and practical assessments.

The Performance Standards are designed to provide the fitness leadership training and certification organizations throughout Canada with:

- A reference point from which both entry-level training and the continuing education for Fitness Leaders can be planned;
- A clear description of measurable knowledge, values and skills that characterize acceptable practices by competent Fitness Leaders;
- A blueprint for nurturing professional standards for Fitness Leaders;
- A means for improving the quality of fitness services offered to consumers.

These Performance Standards are considered appropriate and necessary for training Fitness Leaders to design and instruct safe, enjoyable and effective fitness class experiences with asymptomatic, generally healthy people.

### ***Competency-Based Approach – Training and Development***

The key to a competency-based training approach is to design a program focused on the actual tasks to be performed and to create tools to assess the levels of performance. The list of skills, knowledge and values combine to describe the attributes of a competent Fitness Leader that is able to design and deliver safe, effective and enjoyable fitness programs.

## Application of the Performance Standards in Human Resource Planning

<b>Recruitment</b>	Assists employers with the recruitment of individuals with the skills to perform the job.
<b>Selection</b>	Assessment of the knowledge, skill and values of prospective fitness leader candidates.
<b>Orientation</b>	Provides a guideline for development of job descriptions and job assignments.
<b>Training</b>	Guides new leaders into areas that may require upgrading and can focus the discussion to provide meaningful and specific feedback to the Fitness Leader.

### Definitions

A number of terms have been used repeatedly in the development of these Performance Standards. It is important to have a common understanding of their meaning, and therefore NFLA presents the following definitions:

<b>Training</b> <sup>1</sup>	The participation in organized workshops or seminars in a specific field of study.
<b>Certification/Registration</b> <sup>2</sup>	The process by which an organization recognizes an individual who has met the qualifications specified by the agency or association.
<b>Fitness Leadership</b> <sup>3</sup>	<ul style="list-style-type: none"> <li>• Health-related;</li> <li>• A contract with expectations of service, safety and quality in meeting the needs of individuals and groups;</li> <li>• An opportunity occurring in a structured setting (e.g. in the gym/studio, in the pool, in the weight room);</li> <li>• Structured in design and delivery;</li> <li>• Demanding of physical performance;</li> <li>• Follower-leader oriented; and</li> <li>• Observable, measurable, and adheres to NFLA Performance Standards and/or Guidelines.</li> </ul>
<b>Fitness Leader</b>	An individual who meets criteria outlined in the NFLA Performance Standards plus one specialty area.
<b>Competency</b>	A cluster of inter-related behaviors, knowledge, understandings, attitudes, skills and values that are required for performing effectively in a particular identifiable area. <sup>4</sup> Competencies are output driven and are expressed in behavioural terms that are measurable and observable.
<b>Performance</b>	Performance focuses on how well the individual performs the tasks and whether the individual has achieved the desired results.
<b>Knowledge</b>	An understanding of the related theories and concepts one must have in order to accomplish the tasks. This is often referred to as the “mental part of the job”. <sup>5</sup>
<b>Skills</b>	An ability to apply the knowledge within the work environment. This is the “doing part of the job”.
<b>Values/Beliefs</b>	This is the feeling or the believing part of a job. There has to be an understanding of the “operating values, attitudes or principles associated with the carrying out of the job related activities”.

<sup>1</sup>*Taking Our Pulse: Survey of Fitness Leaders* (p. 29), 1996

<sup>2</sup>*Taking Our Pulse: Survey of Fitness Leaders* (p. 29), 1996

<sup>3</sup>*NFLA's Model* – November 1997

<sup>4</sup>Suessmuth, P. & West S. (1987) *Competency analysis for trainers, a professional assessment and development guide*. Toronto: Ontario Society for Training and Development.

<sup>5</sup>Rabinovitz, T. (1990) *The Development and Testing of a Training Needs Assessment Model*.

## Misinformation and Myths

### Performance Standard #1

The Resistance Training Leader will summarize common myths as well as identify the advantages/disadvantages of various types of resistance training.

### Competencies

- a) Describe and dispel common resistance training myths including the adaptability of women to Resistance Training.
- b) Describe different types of equipment that can be utilized for resistance training.
- c) Identify the advantages and disadvantages of machines and free weights under the headings of capital cost, maintenance, flexibility of use, degree of muscle involvement, ease of learning, time efficiency, safety, and space requirements.

## Movement Terminology and Muscles

### Performance Standard #1

The Resistance Training Leader will demonstrate a basic knowledge of human anatomy.

### Competencies

- a) Define the terms: agonist, antagonist, synergist and stabilizer.
- b) Identify the major muscles of the body (refer to list below).
- c) Describe how muscles act as agonists, antagonists and synergists: Latissimus Dorsi; Trapezius; Serratus Anterior; Erector Spinae; Deltoids; Rhomboids; Pectoralis Major and Minor; Rectus Abdominus; Internal and External Obliques; Transverse Abdominus; Biceps; Triceps; Iliopsoas; Gluteus Maximus, Medius, and Minimus; Hamstrings (Biceps Femoris, Semitendinosus, Semimembranosus); Quadriceps (Rectus Femoris, Vastus Lateralis, Vastus Intermedius, Vastus Medialis ); Rotator Cuff (Subscapularis, Infraspinatus, Teres Minor, Supraspinatus); Sartorius; Gastrocnemius; Soleus; and Tibialis Anterior. (List from fitness theory PS)
- d) Identify the involvement of muscles, tendons and ligaments.

## Types of Resistance and Force Production

### Performance Standard #1

The Resistance Training Leader will demonstrate through verbal and/or written communication a basic knowledge of the exercise physiology underlying resistance training and human movement.

#### Competencies

- a) Define isometric, concentric, and eccentric force production (contractions).
- b) Describe the causes of muscle soreness and the impact of concentric and eccentric contractions.
- c) Identify the impact of eccentric contractions and muscle soreness related to, unfamiliar exercises, and beginner exercise participants.
- d) Describe the terms dynamic constant resistance (isotonic), dynamic variable resistance, dynamic progressive resistance and isokinetic resistance.
- e) State the principles underlying variable resistance machines.
- f) State the effectiveness and non-effectiveness of isokinetic resistance training compared to other forms of resistance training.
- g) Identify the impact of muscle force-velocity relationships, muscle strength curves, and on strength performance.

### Performance Standard #2

The Resistance Training Leader will demonstrate knowledge of the physiology of strength improvement.

#### Competencies

- a) Describe the physiological changes that occur with strength training.
- b) Describe muscle hypertrophy
- c) Define a motor unit and describe the changes that occur with strength training
- d) Identify the muscle structure and function of fibres, myofibrils, muscle cells, actin and myosin.
- e) Describe aerobic versus anaerobic energy systems.
- f) Describe the energy sources and systems associated with resistance training.

## Benefits of Resistance Training

### Performance Standard #1

The Fitness Leader will describe the benefits of resistance training and its relationship to health and wellness.

#### Competencies

- a) List five important reasons to strength train.
- b) Describe the health benefits associated with resistance training.
- c) Indicate the response and adaptability of older adults to resistance training.

## Practical Knowledge

### Performance Standard #1

The Resistance Training Leader will demonstrate through verbal and/or written communication a basic knowledge of the trunk muscles and common exercises used in training.

#### Competencies

- a) State the key function(s) of each of the following muscles and identify exercises involving the muscles: rectus femoris, hamstrings (biceps femoris, semitendinosus, semimembranosus), iliopsoas, transverse abdominus, internal obliques, external obliques, rectus abdominus, erector spinae.
- b) Explain the importance of the trunk as the “power center” or core.
- c) Describe the four training suggestions for a healthy trunk.
- d) Describe neutral spinal posture and why it is important.
- e) Indicate how both sustained flexion and extension strains the supporting structures of the spine.
- f) State the key techniques and precautions for trunk stability and mobility exercises (trunk flexion and extension).
- g) Identify specific safety considerations for the spine during trunk exercises.

### Performance Standard #2

The Resistance Training Leader will demonstrate through verbal and/or written communication a basic knowledge of the upper body muscles and common exercises used in training.

#### Competencies

- a) State the key function(s) of each of the following muscles and identify exercises involving the muscles: biceps, triceps, trapezius, rhomboids, serratus anterior, latissimus dorsi, teres major, pectoralis major, pectoralis minor, deltoids, rotator cuff (supraspinatus, infraspinatus, teres minor, subscapularis).
- b) State the key techniques and precautions for a given upper body exercise.
- c) Identify specific safety considerations for the shoulder joint during upper body exercises.

### Performance Standard #3

The Resistance Training Leader will demonstrate through verbal and/or written communication a basic knowledge of the lower body muscles and common exercises used in training.

#### Competencies

- a) State the key function(s) of each of the following muscles and identify exercises involving the muscles: quadriceps (rectus femoris, vastus medialis, vastus intermedialis, vastus lateralis), hamstrings (biceps femoris, semitendinosus, semimembranosus), abductors (gluteus minimus, gluteus medius), gluteus maximus, iliopsoas, gastrocnemius, soleus, tibialis anterior, adductors (adductor magnus, longus and brevis, pectineus and gracilis), sartorius.

- b) State the key techniques and precautions for a given lower body exercise.
- c) Identify specific safety considerations for the knee joint during lower body exercises.

## Program Planning

### Performance Standard #1

The Resistance Training Leader will design an effective program using established methods and training principles.

#### Competencies

- a) State the steps for designing a resistance training program.
- b) Identify and review the steps involved in program design and goal setting.
- c) Describe how to cross train within a resistance training program.
- d) Identify and review the definitions of: progressive overload, specificity, recovery/rest, and ceiling effect.
- e) Define the terms isolated and compound (multi-joint) exercises and identify exercises that are examples of each (Refer to the Glossary of Terms at the end of this document)
- f) State the importance of intensity for optimizing resistance training results.
- g) Describe slow and fast twitch muscle fibre types and their relative percentages.
- h) Define and apply the workout terms reps, sets and loads for muscular endurance, muscular strength and muscle hypertrophy.
- i) Discuss the variables: muscle activation, correct mechanics, frequency of resistance training workouts, number of exercises (including balance of opposing muscle groups), workout length, exercise order, rest between sets and workouts, increasing the resistance/load as they relate to a resistance training program.
- j) List five ways to change variables for strength gains.

### Performance Standard #2

The Resistance Training Leader will demonstrate an understanding of methods that ensure safe and effective exercise execution.

#### Competencies

- a) List seven reasons to control speed of movement.
- b) State the importance of breathing during resistance training.
- c) Describe the importance of lifting technique and safety.

## Communication

### Performance Standard #1

The Resistance Training Leader will recognize and demonstrate a variety of effective communication techniques.

#### Competencies

- a) Identify and review effective communication skills of active listening, questioning, feedback and self-disclosure.
- b) Demonstrate effective communication skills of active listening, questioning, feedback and self-disclosure with a client during an orientation to a resistance program

## Leadership Skills

### Performance Standard #1

The Resistance Training Leader will conduct a safe and effective exercise session using a variety of leadership styles.

### Competencies

- a) Demonstrate the ability to create a supportive environment.
- b) Explain the purpose of a given exercise and offer alternatives.
- c) Identify and demonstrate effective leadership qualities.
- d) Identify potential challenges that leaders may experience and describe strategies for accommodating these situations.

## Professional Development

### Performance Standard #1

The Resistance Training Leader will demonstrate an understanding of how to pursue continuing education related to fitness leadership.

### Competencies

- a) Identify fitness or related organizations; research what continuing education opportunities they currently offer.
- b) Demonstrate an awareness of a Fitness Leader's code of conduct and scope of practice.