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WaterART™ BASIC INSTRUCTOR CERTIFICATION COURSE CURRICULUM:

Discover the difference that water training makes!

WaterART Fitness Training & Certification Programs is the integration of Exercise Design with the Properties of Water so as to EMPOWER our clientele in the individualization of their workout sessions.

- Basic Exercise Science Principles
- Properties of Water
- Aquatic Fitness Class Design
- Basic Anatomy and Biomechanics
- Cardiovascular Training Guidelines
- Muscular Conditioning Guidelines
- Flexibility Training Guidelines
- Shallow Water Workouts
- Deep Water Workouts - Noodles
- Exercise Movement Inventory

Course Objective:

By the end of this program, the instructor will understand how to design a basic aquatic fitness class, in shallow and deep-water depths.

General Guidelines to Adult Learning Styles & How to Facilitate a Program.

Realize that facilitating learning is a complex undertaking. There are so many variables to consider as you work towards managing a group learning at different rates.

You may have to be a teacher, a coach, a facilitator, an organizer as well as a friend. You may need to provide meaningful material in a way that is both interesting and positive. You may need to help individuals in a group understand the basic thereby establishing a supportive and positive non-threatening environment.

You may need to structure your lesson plans to meet the diverse interests of a group. Assume that learners must take some responsibility for their own learning. They may need to develop techniques to understand the material. We will demonstrate the WaterART information in 4 main formats so that everyone will feel comfortable and successful.

The four styles we will use in this training program are:

Visual – read, watch the DVD(s), see the power point, see the notes

Hear – the terminology and the information presented

Feel the movements in the classroom and pool

Teach to empower the individual to break down and apply the information

Assume that everyone will learn differently and it is necessary to provide all four styles for the different types of learners

- 1) **kinetic**
- 2) **auditory**
- 3) **cognitive**
- 4) **affective**

If adults are feeling a great deal of anxiety in a learning situation they will have difficulty in communicating around others. Confirm that there is no best way to learn. Everyone comes into the training with skills, experiences and talents. However everyone may not learn at the same speed so this should be allowed for.

By providing more cognitive and affective learning activities adult learning is greatly enhanced. A training will need to appeal to both the cognitive (thinking) types as well as the affective (feeling) type of learners.

If the material is new to most of the group and requires significant changes in ways of moving and understanding the content, be sure that you design break out groups that facilitate both. Use mini groups of three or four and provide each delegate with an opportunity to experience the teaching of the material. Provide the group with systems to help each individual. For example, they may gesture by holding their ears if they cant hear or gesture by touching their eyebrow if they cant see. They may hold their arms up in a non threatening manner if they can not understand. That way the behavior isn't as disruptive or rude as interrupting verbally. Make sure that the groups are well balanced. Should you see groups struggling – be sure to offer positive corrective and specific feedback.

COURSE CONTENT:

1: OVERVIEW OF AQUATIC FITNESS**Performance Standards #1**

The WaterART Master Trainer will summarize – the popularity of water exercise and the benefits of water exercise

Competencies:

- a) List 10 benefits associated with aquatic fitness.
- b) List 3 types of water fitness programs
- c) List 4 ways to positively influence people to engage physical activity

Performance Standards #2

The WaterART Master Trainer will explain Aquatic exercise design; the importance of teaching an effective class; • Health reports, surveys & research regarding Aquatic exercise & mental health;

Competencies:

- a) Understand 5 reasons how to modify a program appropriate for aging populations,
- b) Understand 5 reasons how to modify a program people with medical conditions,
- c) Understand 5 reasons how to progress a program or sports enthusiasts.
- d) Understand 5 health risks that can be reduced with regular exercise. Reference the Surgeon General's Report on inactivity.
- e) List 5 ways the aquatic fitness instructor's role may helping to improve the health in North America

Lesson Plan:

Benefits of water

Inactivity – health reports – Canada & USA

Exercise trends and types of programs that can be offered.

2: STRUCTURE OF THE HUMAN BODY**Performance Standards #1**

The WaterART Master Trainer will demonstrate and describe the Anatomical position show planes of movement and discuss muscle and joint physiology.

Competencies:

- a) Name the three flat surface planes and how they divide the body.
- b) Name three types of joint movements and explain their action.
- c) Name the blood vessels that return blood to the heart?
- d) Name the two types of muscle fibers.
- e) Understanding functional range of motion for all the major muscle groups (as related to aquatic fitness programming)

Performance Standards#2

The WaterART Master Trainer will demonstrate and describe Energy production; Cardiovascular (CV) & respiratory systems; Metabolism; Biomechanics & joint action

Competencies:

- a) Name the two energy systems.
- b) Name 10 anatomical terms and a description of each.
- c) Explain the difference between a sprain and a strain
- d) What is metabolism?

Lesson Plan:

Human anatomy
Joint and muscle biomechanics
Energy description and conscription.

3 :WATERART™ BLUEPRINT DESIGN**Performance Standards:**

The WaterART Master Trainer will describe the purpose & general principles of exercise blueprinting, Progressive overload, and the WaterART™ training system

Competencies:

- a) Describe 5 components of a exercise blueprint?
- b) Define the F.I.T.T. Principle
- c) The number of exercise sessions per week that will benefit a sedentary person.
- d) Basic moves suitable for shallow vs deep water
- e) The type of people who will benefit from an intermediate level of training
- f) The type of program that is most suited to a therapy pool
- g) The WaterART formula for program design
- h) Monitoring HR and using the Perceived Exertion Scale to achieve maximum benefit.

Lesson Plan:

Fitness Training Principles
Blue Print Design – WaterART acronym
Basic movement
Adapting programs for different populations, skill and fitness levels

4: THE POWER OF WATER- -USING PROPERTIES OF WATER FOR CLASS DESIGN**Performance Standards #1**

The WaterART Master Trainer will describe and demonstrate the powerful properties of water- and examine: Buoyancy; Resistance; Lever lengths; Turbulence; Eddy space, Inertia
Action/reaction: Water depth, Travel, acceleration, power & force

Competencies:

- a) Name 5 properties of water and how to use each effectively in a workout.
- b) Define Newton's principles of Action-Reaction, Inertia and list 3 ways they can be used to assist the beginner exerciser.
- c) List 3 ways that hydrostatic pressure affects program design
- d) Define Athletic stance and provide 3 tips for effective body alignment
- e) List 5 ways to travel patterns
- f) Understand 5 ways how a noodle or a belt will use buoyancy

Performance Standards #2

The WaterART Master Trainer will discuss how to plan or design a successful class. Class structure will deal with the necessary fitness components, how to teach Basic skills, incorporate Levels of basic movement suitable for Beginner, intermediate, & advanced participants

Competencies:

- a) List 5 fitness components that should be included in every regular water exercise class.
- b) List 3 advantages and 3 disadvantages of teaching on deck or in the water
- c) List 5 examples of travel for each of the 7 basic motor moves.
- d) Name 3 upper body and 3 lower body muscle groups that should be targeted for overload training.
- e) The purpose of a Warm Up and a Warm-Down?
- f) List 5 things that should be on the "to do" list to be prepared prior to class.

Lesson Plan:

Using the properties of water to enhance each program
Using the properties of water to assist or resist movement
Writing out a class design
The many components of fitness
Teaching from the Deck
Teaching in the Water
Planning specific programming.
Being prepared.

5 CARDIOVASCULAR TRAINING**Performance Standard #1**

The WaterART Master Trainer will discuss the Concept of VO_2 max; Heart rate monitoring; and muscle groups that create the best cardio effect. Sample Inventory of C/V sets

Competencies:

- a) List 3 ways to ways to monitor both breathing and/or muscular fatigue in a workout
- b) Explain what happens to muscles when the workout becomes anaerobic
- c) List 3 factors that contribute to inaccuracies when taking a heart rate in the water. Why heart rates in the water differ from land values.
- d) List 3 best muscle groups that can be used to target cardiovascular conditioning
- e) The ACSM recommended caloric expenditure for sessions per week
- f) List 5 sets of combinations of moves that can be used for cardiovascular training.

Lesson Plan:

What is cardiovascular training?
How to achieve a cardiovascular effect
Optimal HR zones.
Muscles and moves needed to create and reach cardiovascular targets

6. MUSCLES –ENDURANCE & STRENGTH**Performance Standard #1**

The WaterART Master Trainer will discuss the definitions of, and guidelines to, muscular strength vs muscular endurance; the Principles of increasing muscular strength. The Benefits of Muscle balancing for effective training.

Competencies:

- a) Define the difference between muscular strength and muscular endurance
- b) List 4 Principles of Strength Training
- c) List 6 Muscle “pairs” – agonists and antagonists
- d) List 5 benefits of Resistive Training.
- e) Explain the difference between concentric and eccentric contractions
5. What is the stretch reflex?

Performance Standard #2

The WaterART Master Trainer will go over a wide inventory of muscle group exercise for each major muscle group in both shallow and deep water depths - incorporating joint action, functional range of motion and exercise design.

Competencies:

- a) List 3 upper body movements that can be used to balance the movement when training the lower body muscle groups

- b) List 3 lower body movements that can be used to balance when training upper body muscle groups
- d) Learn 3 ways to strengthen & stretch every major muscle group
- e) List 2 Training principles that will develop both muscular strength and endurance?

Lesson Plan:

Muscular strength and Muscular endurance and their use/importance for daily activities
Principles affecting Muscle conditioning/deconditioning, specificity and adaptation.
Location and performance of every major muscle group
Exercise inventory for specific muscle movement.

7 –POSTURE & BALANCE**Performance Standard #1**

The WaterART Master Trainer will examine the importance of Good Posture relative to injury prevention and discuss the factors affecting exercise & posture and the importance of Balance training

Competencies:

- a) List 2 definitions of good posture?
- b) List 5 benefits of good posture.
- c) List 3 systems that interact to provide good posture.
- d) Describe “Kinesthesia” – the awareness of body position
- e) Explain the difference between static and dynamic balance
- f) Explain why Balance is important to ADLs and Injury prevention.

Lesson Plan:

Training Postural awareness
Cuing for good body alignment in all movement
Exercises to train for balance
Injury prevention.
Movement to imitate daily activity in the water.

8: FLEXIBILITY**Performance Standard #1**

The WaterART Master Trainer will discuss the definitions of, and guidelines to, flexibility and its importance of working through correct ROM. Developing flexibility for injury prevention and active vs passive stretching

Competencies:

- a) What is the recommended frequency (per week) for flexibility exercises?
- b) List 3 principles of stretching and explain the difference between them.
- c) Give the definition of optimal flexibility
- d) List 3 Important considerations when stretching with participants.
- e) What is the desirable muscle temperature for safe, effective stretching?

Performance Standard #2

The WaterART Master Trainer will discuss the major benefits of stretching and important points to consider when stretching using buoyancy.

Competencies

- a) What type of stretching is suitable for a therapy pool vs an 84⁰ F. pool
- b) What type of stretching is recommended at the beginning and at the end of a program?.
- c) List 5 ways to use the water to help improve flexibility
- d) List 5 reasons why participants should drink water in an aquatic fitness class.

Lesson Plan:

Definitions of stretching and various stretching techniques
Using the water to stretch
Water Temperatures and stretching

9. DEEP WATER TRAINING – with BELTS & NOODLES**Performance Standard #1**

The WaterART Master Trainer will discuss the benefits of deep-water training using a belt; how to change from shallow to deep programs and understanding the dynamics & differences. The trainer will demonstrate the necessary water skills required, show basic moves and body positions and discuss the many program applications in deep water with guidelines for a class format.

Competencies:

- a) List 5 benefits of training in deep water using a belt.
- b) Explain the difference between shallow, transitional and deep depths
- c) List 5 basic moves and 5 body positions that work well in deep water?
- d) Explain the necessity to balance work with rest in deep water, and how to teach participants to change movement when muscles fatigue.
- e) List 3 ways to create overload in the deep.

Performance Standard #2

The WaterART Master Trainer will discuss the benefits of deep-water training using a noodle for support and explain the different program this piece of equipment creates as compared to a belt.

Competencies:

- a) List 3 safety considerations that should be observed when working with a noodle in the deep;
- b) Name 3 benefits of changing the position of the noodle's buoyant support.
- c) Explain training techniques and list 5 ways to cue for change of movement
- d) List 5 body positions and 5 cardiovascular "noodle" moves
- e) Learn a noodle exercise inventory to target lower body and upper body muscles

Lesson Plan

Deep water programming using a noodle or a buoyancy belt
Inventory for movements that can be used with either piece of equipment or can be interchanged
Teaching tips to help the students understand the differences of balance.
Inventory of body positions using a belt or a noodle.

10: NUTRITION & WEIGHT MANAGEMENT**Performance Standard #1**

The WaterART Master Trainer will go over the components of nutrition to discuss Proteins, Carbohydrates, Fats, Vitamins, Minerals and Water, and their importance in the daily diet.

Competencies:

- a) List the breakdown for the recommended daily caloric intake for Protein, Fat and Carbohydrates,
- b) List the number of calories found in each gram of Protein, Fat and Carbohydrates,
- c) The importance of fiber in the diet and how many grams of fiber are recommended daily
- d) List 3 Vitamins that are water-soluble and 3 that are fat soluble
- e) Give 5 reasons why water is essential to the body.
- e) List 3 signs of dehydration and 1 method to deal with this in a class situation

Performance Standard #2

The WaterART Master Trainer will discuss the importance of, and some guidelines to weight management, the difference between cholesterol (HDLs and LDLs). Recommended use of Alcohol and Caffeine.

Competencies

- a) Name the 2 types of cholesterol. What is the difference?
- b) What is the recommended weekly weight loss in a sensible weight loss program?

Lesson Plan:

The components of a sensible diet
Ideas to get information to the participants
Eating plans
The importance of water in every diet and why it must be brought to a class.

11: THE ART OF LEADERSHIP**Performance Standard #1**

The WaterART Master Trainer will discuss how to be a successful leader and dealing with a variety of people that comprise a class; the passion required to motivate a class and examine a few “tools of the trade”.

Competencies:

- a) List 2 ways to help remember participants' names, special conditions and/or problems.
- b) List 2 principles to help deal effectively with problems such as constant talking in a class situation.
- c) List 3 tips for starting a class successfully.
- d) List 5 things to go over after a class

Lesson Plan:

Discuss the wide variety of people in a class
Skill levels – beginners vs advanced participants
Medical problems that can compromise performance
Ideas to motivate everyone to work at their best level.

12 MUSIC:**Performance Standard #1**

The WaterART Master Trainer will discuss the pros and cons of using music in an aquatic situation: pool acoustics, the type of class being offered, the age of participants, and copyright considerations.

Competencies:

- a) Understanding 3 reasons why it is impossible to work in time to the music in the water
- b) List 3 variables that can affect synchronized movement in an aquatic program.
- c) Give 3 tips to use when educating participants in the water.
- d) name 3 visual cues to help train participants
- e) List 3 types of music that would be suitable for specific programs
- f) Understand the responsibility of the group instructor and music licensing laws

Lesson Plan:

Educating participants prior to using music
Dealing with Acoustics
Suggested Visual and verbal cueing
Using music for Motivation
Copyright laws.

13 POOL SAFETY CONSIDERATIONS

Performance Standard #1

The WaterART Master Trainer will discuss pool categories, air and water quality and go over a Safety Check List

Competencies:

- a) Understand Pool categories. Public vs Private
- b) List 2 considerations for evaluating air/water quality.
- c) List 5 important details to put on the Safety check list.

Lesson Plan:

Water and Air temperatures – safe deck monitoring
Pool safety for participants and instructors

14 WATERART™ CERTIFICATION INFORMATION

Performance Standard #1

The WaterART Master Trainer will give a general overview of information that an instructor should understand prior to taking the certification exam:

Competencies:

- List 5 ways water training differs from land training
- • How does current research apply to water training methodology?
- • Understand all the properties of water and how to apply them to exercise design.
- • List 5 methods of monitoring and regulating exercise intensity.
- • Understand how to evaluate exercise design for safety and effectiveness.
- • Name the components of an aquatic fitness class
- • Learn how to target these components to meet the exercise objective.
- • Design a shallow or deep-water class for apparently healthy populations.
- • Understand the importance of thermal regulation and how to regulate it.
- • List at least 5 guidelines for cardiovascular training, muscular endurance and strengthening, flexibility, range of motion and weight management.
- • Identify and locate all the major muscles groups.
- • Explain the joint action of each major muscle groups.
- • Explain the difference between shallow, transitional and deep-water exercise design.
- • Demonstrate safe use of basic equipment such as: kickboards, noodles, mitts, shoes, belts, bands.
- • List 3 leadership strategies for motivating and communicating with group.
- • Understand basic nutrition and weight management principles.
- Monitor Air and Water temperature and be aware of Pool Safety requirements

Lesson Plan:

General review of program
Supply educational resources and handouts
Suggest additional resources.

15: TIME ALLOCATION:

Topic	Lecture	Practical
1: Overview of Aquatic Fitness	3%	
2: Structure of the Human Body	10%	
3: WaterARTTM Blueprint Design	10%	15%
4: The Power of Water-Pool Lab & Class Design	15%	25%
5: Target Training –Cardiovascular training	10%	10%
6: Target Training –Muscles –Endurance & Strength	15%	15%
7: Target Training –Posture & Balance	8%	10%
8: Target Training –Flexibility	8%	10%
9: Deep Water Training - Noodles	10%	..15%
10: Nutrition & Weight Management	3%	
11: The Art of Leadership	3%	
12: Music	.3%	
13: Pool Safety Considerations	.2%	