

LEARNING OBJECTIVES: Aquatic exercise

The learning objectives describe the competencies outlined in the performance standard.

Learning objectives

Aquatic Exercise Learning Objectives

Section I - History and Evolution of Aquatic Exercise

Sub-objectives:

- Describe the history of aquatic exercise, including how it has developed and evolved over time.
- Explain the benefits of aquatic exercise classes as they relate to overall benefits of physical activity and exercise. *Pg.15, 106/107, 142, 161*
- Describe the reasons for aquatic exercise popularity for all populations.

Section II – Class Structure and Content of Aquatic Exercise

Objective I: Planning and Design

Sub-objectives:

- Using the ADDIE model, describe components of an aquatic exercise class and what to include in each component.
- Develop and deliver an aquatic exercise class, of which the components meet participants' needs and levels.
- Describe and demonstrate the different monitoring intensity techniques and the benefits and challenges of each. *pg. 10-12*
- Identify the factors that influence the aquatic exercise heart rates and how they compare to land-based heart rates. *Pg. 10*
- Describe the physiological responses in water and the application to effective class design. *table 1.1*
- Discuss the methods by which class components can be altered for varied populations. *Chp. 12, pg. 237ff*
- Describe safety considerations when designing each class component. *chp. 11*
- Discuss appropriate class design based on current research in principles of conditioning, anatomy (joint actions, muscle engagement), biomechanics and exercise physiology. *chp. 4, chp. 3, chp. 11*
- Discuss how to design class components where balance – both between muscle groups and between fitness components – is an integral component.
- Describe various program formats in aquatic training and their effect on the aquatic exercise participant. *pg. 221 ff*
- Discuss methods of evaluating the effectiveness of class components and class design.

LEARNING OBJECTIVES: Aquatic exercise

- Develop and deliver an effective class including: flow and transitions, variety, safety, environment, and facility amenities. *Pg. 183, 188-189, chp. 7*

Objective II: Risk Management and Safety Guidelines**Sub-objectives:**

- Demonstrate and distinguish between proper and improper technique, posture and alignment; describing potential injuries that could result. *pg. 63, 153, 155, 162, 167, 168, 170, 230-232*
- Explain potential legal risks of implementing contraindicated movements within the aquatic exercise class. *pg. 230 ff, also pg. 315-317, pg. 274ff*
- Indicate safety guidelines to consider when designing each class component of the aquatic exercise class. *pg. 173*
- Utilize current research to identify appropriate design of aquatic exercise class components (e.g., duration, intensity, mode, etc. of warm up, cooldown, etc.). *Chp. 11, pg. 211 - 221*
- Review appropriate application of pre-screening tools (PAR-Q+, informed consent, etc.). *pg. 318*
- Review the scope of practice of the aquatic exercise leader and discuss the implications of working outside of that scope. *pg. 315-317*

Objective III: Physical Properties of Water*Chp. 6***Subobjectives:**

- Identify and define the physical properties of water and how these impact program design: buoyancy, viscosity, turbulence, drag, hydrostatic pressure, acceleration (speed, power, force), inertia, surface tension, resistance, leverage and action/reaction, water temperature.
- Discuss factors that influence the speed of movement in the water.
- Describe the different effects of speed, acceleration, and buoyancy on intensity in the water.
- Describe how movements and muscle actions are affected by buoyancy of water.
- Describe differences between buoyancy assisted and resisted movements.

Objective IV: Pool Environment and Design*Chp. 7***Subobjectives:**

- Identify effects of water and air temperatures and humidity on various types of aquatic exercise programs.
- Describe strategies to minimize overheating and overcooling.

Objective V: Shallow and Deep Water Exercise*Chp. 8 & 9*

LEARNING OBJECTIVES: Aquatic exercise

Subobjectives:

- Identify the differences between deep, shallow and transitional depth aquatic exercise.
- Identify water appropriate deep-water base moves and their variations.
- Identify water appropriate shallow-water base moves and their variations.
- Describe the rationale for choosing a specific flotation device.

Section III – Leadership and Communication

Objective I: Leadership

Sub-objectives:

- Demonstrate a level of interaction with participants that creates a positive learning environment within the aquatic exercise class. *pg. 205-206*
- Evaluate participant technique and performance, providing feedback toward optimizing these elements. *pg. 64*
- Describe and implement methods for helping participants execute appropriate intensity. *chp. 1 monitoring intensity/ pg. 10,11, 12*
- Explain the importance of ongoing observation of class participants, adapting as needed to respond to participant needs.
- Demonstrate how to create an enthusiastic, motivational environment within the aquatic exercise class. *chp. 5--pg. 93-95*

Objective II: Teaching *Chp. 10 pg. 181ff*

Sub-objectives:

- Describe and implement various instructional techniques including: progression from simple to complex, pattern development techniques, variety of class formations, mirror imaging, and intensity progression (less to more, and vice versa). *pg. 187, 194 ff, choreography pg. 197*
- Utilize common base move terms and exercise terminology typically used within the aquatic exercise class. *chp. 8 shallow, chp. 9 deep, pg. 143-150, 163-164*
- Identify instructional challenges specific to aquatic exercise classes and strategies for managing and minimizing these challenges. *pg. 199-205*
- Discuss the benefits and challenges of leading on the deck versus leading in the pool. *pg. 199ff*

Objective III: Cueing Strategies *Chp. 10*

Sub-objectives:

LEARNING OBJECTIVES: Aquatic exercise

- Differentiate between verbal and nonverbal cueing techniques used within the aquatic exercise class.
- Differentiate between effective and ineffective verbal cueing (e.g., on proper technique, motivation, etc.).
- Differentiate between effective and ineffective visual cueing.
- Differentiate between effective and ineffective kinesthetic cueing.
- Explain the relationship between body language and its effect on class energy, enthusiasm, body alignment and group rapport.

Objective IV: Voice/Vocal Strategies

Sub-objectives:

- Explain the importance of vocal projection and intonation.
- Identify key tips for vocal safety.
- Identify key tips for vocal clarity and conciseness.

Section IV – Use of Music

Sub-objectives:

- List reasons for using music in the aquatic exercise setting (e.g., mood, class flow, etc.). *pg. 197-199*
- Define the following base elements of music: beat, tempo.
- As applicable, identify the 8 count and 32 count and how it affects program design and pattern development.
- Select music of appropriate tempo, mood, style and decibel level (volume) for various class components. *Table 10.3 pg. 198*
- Select music of appropriate tempo, mood, style and decibel level (volume) for various class types. *Table 10.3 pg. 198, chp. 8 pg 151, 165*
- Identify safe microphone volumes.
- Identify the legalities of sourcing, purchasing and using music in the aquatic exercise class. *pg. 322*

Section V – Exercise Analysis

Objective I: Exercise Selection

Chp. 4

Sub-objectives:

- Create safe, effective exercise variations and modifications implementing the SEAT acronym (from Foundations).

LEARNING OBJECTIVES: Aquatic exercise

- Evaluate the effectiveness, applicability (functionality) and time efficiency of a given exercise within the water environment.
- Identify various aquatic exercise equipment and their use in class design. *pg. 83-85*
- Explain the purpose of an exercise/movement in any given class component. *chp. 11 pg. 212-221*
- Identify individual movement/misalignments within each class component and give corrective feedback to improve technique. *pg. 153, 155, pg. 230-232*
- Demonstrate safe use of equipment within each component of the aquatic exercise class. *pg. 83-85, 171,172, 349-354*
- Compare proper and improper technique and posture; identify the injuries that could result.
- Assess movements and movement patterns for appropriateness and safety within the water environment.

Objective II: Proper Posture and Core Stabilization**Sub-objectives:**

- State the importance of proper posture and neutral body alignment in all aquatic exercise activities. *pg. 63,64, 153*
- Describe the importance of core stabilization for maintaining neutral spine. *pg. 153, 169, 170*
- List and describe the major muscle groups involved in core stabilization.