



Course Title: Aquatic Options 2:  
Special Populations and Post Rehab Fitness Training

Produced by: **Fitness Learning Systems**  
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Course Type: **e-Learning Home Study**

Credit hours: AEA 5.0, ACSM 5.0, ATRI 0.5, NFPT 1.0, NCSF 2.5,  
YMCA 5.0, NSPA 5.0, COPS-KT 0.5

Author/s:

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Monique is the founder and president of The Personal Health Trac in Venice, Florida. She is an international presenter, training specialist for the Aquatic Exercise Association, and co-author of The Aquatic After Care Training Manual. As a certified medical exercise specialist, post rehab specialist and personal trainer, Monique designs both land and water exercise programs to fit her client's needs.

**Judi Powers MS Clinical Exercise Physiology**

Judi is the corporate wellness specialist at MidMichigan Medical Center in Midland Michigan. She creates exercise programs for transitional clients from physical therapy and cardiac rehabilitation. Her teaching resume includes training specialist for Aquatic Exercise Association, American College of Sports Medicine, Aerobics & Fitness Association, and Fitness Resource Associates for past 22 years.

**Laurie Denomme, B. Kinesiology**

Laurie is the assistant director of operations for the Aquatic Exercise Association, an AEA training specialist and a Bender Method master trainer. She is the co-author of a book on special populations & post-rehab aquatic fitness and enjoys traveling internationally to share her unique and personally developed aquatic training methods.

Course Summary:

This course is the second module in the Aquatic Options series. The information presented in this course is the resource material used in the Aquatic Options: Special Population & Post Rehab Fitness Training Certificate course. Aquatic Options was specifically designed for aquatic fitness professionals, Personal

Trainers, Physical Therapy Assistants, Occupational Therapy Assistants, Recreational Therapists, and any other professional working with special populations and post rehab individuals in the aquatic environment.

In this course you will learn simple modifications for participants with specific medical conditions including arthritis, diabetes, hypertension, and obesity. In addition, you will gain the confidence to choose appropriate equipment for all of the populations discussed in both courses. It also provides an introduction to the assessment, evaluation, documentation and reporting process.

Put together all that you have learned in both courses using the sample programs provided and be able to design your own safe and effective aquatic fitness programming for special populations.

### Objectives:

1. Understand concepts for how to get started working with special populations in the aquatic environment including standard of care and risk management.
2. Be introduced to personal fitness screening and learn how to select appropriate pre and post assessment tools.
3. Learn documenting processes and how to build communication and referrals with the medical community. Identify aquatic training options for special populations including:
  - a. Deconditioned and Moderately Obese.
  - b. Diabetes mellitus.
  - c. Cardiovascular Diseases.
  - d. Osteoarthritis.
4. Describe exercise training principles specific to exercise in the water.
5. Review resistance training exercises for many musculoskeletal conditions.
6. Understand the program components for a safe and effective aquatic work out including warm up, endurance and conditioning, and cool down and stretch.
7. Learn how to select appropriate aquatic exercise equipment and use the equipment effectively.
8. Understand effective aquatic equipment progressions.

### Outline:

#### Getting Started

- Professional Decision Making
- Standard of Care
- Aquatic Therapy vs. Aquatic Exercise
- Risk Management
  - Emergency Action Plans
  - Environmental Issues
  - Medical Issues and Precautions

#### Personal Fitness Screening

- Introduction to Screening

- General Information and Health History
- Medical Release
- Informed Consent
- Activity Readiness Questionnaire (PAR-Q)
- Selecting Appropriate Pre and Post Assessment Tools
  - Introduction to Exercise Testing
  - Common Fitness Component Assessments
    - Flexibility
    - Cardiorespiratory
    - Muscular Fitness
    - Body Composition
- Pre-Test Screening
- Postural Screening
  - Common Postural Problems
  - Posture Observation
- Basic Functional Screening

- Documenting and Reporting
  - Screening and Assessment Reporting
    - Documenting and Reporting using S.O.A.P. Notes
  - Communication with Medical Community
  - Client Confidentiality
  - Building Referrals in the Medical Community
  - Marketing, Building Relationships, Retention

- Aquatic Options for Specific Medical Conditions
  - Benefits of Training in the Pool
    - Buoyancy
    - Resistance and Drag
    - Hydrostatic Pressure

- Aquatic Fitness Programming for Deconditioned and Moderate Obesity
  - General Information
  - Program Guidelines
  - Specific Programming for Deconditioned and Moderate Obesity

- Aquatic Fitness Programming for Diabetes Mellitus
  - General Information
  - Program Guidelines
  - Specific Programming for Type 2 Diabetes

- Aquatic Fitness Programming for Cardiovascular Diseases
  - General Information
  - Program Guidelines
  - Specific Programming for Cardiovascular Diseases

## Aquatic Fitness Programming for Osteoarthritis

General Information

Program Guidelines

Specific Programming for Osteoarthritis

### Program Design

Exercise Training Principles

Newton's Laws of Motion

Inertia

Acceleration

Action/Reaction

Resistance Exercise Review

Upper Extremity Resistance Training Exercises

Scapular Retraction & Depression

Poolside Wall Push Away

Shoulder Flexion & Extension

Shoulder Abduction & Adduction

Transverse Shoulder Abduction & Adduction

External (lateral) Shoulder Rotation

Internal (medial) Shoulder Rotation

Pendulum

Aquatic Row

Elbow Flexion & Extension

Vertebral Column Resistance Training Exercises

Single Leg Cycle

Hip Flexion & Extension

Knee Flexion & Extension

Single Leg Press

Aquatic Row

Hip Flexion & Extension using Rubberized Resistance

Knee Flexion & Extension using Rubberized Resistance

Single Leg Press using Rubberized Resistance

Aquatic Row using Buoyant Equipment

Shoulder Abduction & Adduction using Buoyant Equipment

Diagonal Chest Press using Buoyant Equipment

Single Arm Stir using Buoyant Equipment

Lower Extremity Resistance Training Exercises

Mini Squat

Terminal Knee Extension

Aquatic Cycling

Hip Flexion and Extension

Lateral Step Up

Single Leg Press

Single Leg Mini Squat

Plantar Flexion

Knee Flexion (with hip neutral) using Buoyant Equipment

Knee Flexion and Extension (with hip flexed) using Buoyant Equipment

Proprioceptive Neuromuscular Facilitation (PNF) Fitness Patterns

UE PNF D1 Flexion & Extension

UE PNF D2 Flexion & Extension  
LE PNF D1 Flexion & Extension  
LE PNF D2 Flexion & Extension

Progressions for Resistance Exercises Phase 1 and 2

Progressions for Stretching

Aquatic Fitness Programming Components

Warm Up Component

Endurance and Conditioning Component

Cardio respiratory Training

Muscular Endurance Training

Flexibility and ROM Training

Cool Down and Stretch Component

Equipment Options

Selecting Appropriate Equipment

Equipment & Proper Movement Execution

Types of Equipment

Drag

Buoyant

Rubberized

Weighted

Equipment and Progressions

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