

**MODULE TITLE:**

Aquatic exercise for functional improvement
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**RESPONSIBLE FOR THE MODULE:**

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POSITION	Associate Professor	
SECTOR	Exercise and Health	
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CO-INSTRUCTORS	Paraskevi Malliou, Professor	

**HOURS (per week):**

**LANGUAGE OF TEACHING:**

GREEK [ ]

ENGLISH [  ]**AIM OF THE MODULE (content and acquired skills)**

The aim of this module is to analyze the particularities of the aquatic environment as a means of implementing exercise programs. The points of this section are the physical properties of the water and the aquatic training equipment which can be used for the exercise programs.

**MODULE CONTENTS (outline – titles of lectures)**

1. Aquatic Environment
2. Physical properties of the water
3. Aquatic training equipment
4. Types of Aquatic Equipment and Muscle Actions
5. Buoyancy and flotation devices
6. Drag - Resistance Equipment

**TEACHING METHOD (lectures – labs – practice etc)**

Lectures and practical application
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**LEARNING OUTCOMES**

Upon the completion of this module the student will be able to:

1. To understand the particularities of the aquatic environment as a means of implementing exercise programs.
2. To know the physical properties of the water



3. To design and apply exercise programs with the use of the aquatic training equipment

#### LEARNING OUTCOMES - CONTINUED

<i>Learning Outcomes</i>	<i>Educational Activities</i>	<i>Assessment</i>	<i>Students Work Load (hours)</i>
The students will be able to understand the physical properties of the water	Lectures, slides and videos show and discussion, study at home	Intermediate control tests and assignments	
The students will be able to design and apply exercise programs with the use of the aquatic training equipment	Practical exercise, practice in groups and study at home	Intermediate control tests and assignments	

#### OBLIGATORY & SUGGESTED BIBLIOGRAPHY:

1. Ruoti R.G., Morris D.M., Cole A.J. (1997). Aquatic Rehabilitation. Lippincott, Philadelphia.
2. Aquatic fitness professional manual/Aquatic Exercise Association (AEA) (2010). 6th ed. Human Kinetics, Champaign, IL
3. Bates A., Hanson N. (1996). Aquatic Exercise Therapy. W.B. Saunders Company, Philadelphia, Pennsylvania 19106.
4. Champion M. (1997). Hydrotherapy: Principles and Management. Butterworth-Heinemann, London.
5. Costa R., Kanitz A., Reichert T., Prado A., Coconcelli L., Butteli A., Pereira L., Masiero M., Meinerz A., Conceicao M., Sbeghen I., Krue L. (2018). Water-based aerobic training improves strength parameters and cardiorespiratory outcomes in elderly women. *Exp Gerontol.* 108, 231-239
6. Gioftsidou A., Malliou P., Sofokleous P., Beneka A., Tsapralis K. and Godolias G. (2013). Aquatic Training for Ankle Instability. *Foot Ankle Spec* 2013 6(8): 346-351.
7. Foley A., Halbert J., Hewitt T., Crotty M. (2003). Does hydrotherapy improve strength and physical function in patients with osteoarthritis—a randomised controlled trial comparing a gym based and a hydrotherapy based strengthening programme. *Ann Rheum*, 62, 1162-1167.