

**MODULE TITLE:**

Aquatic exercise for functional improvement

RESPONSIBLE FOR THE MODULE:

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POSITION	Assoc. 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 aquatic training programs on shallow and deep water, appropriate use of aquatic equipment in order to perform strength exercises, range of motion exercise, aerobic and functional exercises. Finally, students will learn how to design and apply aquatic exercise programs for functional improvement.

MODULE CONTENTS (outline – titles of lectures)

1. Pool depth and Exercise
2. Exercises to increase mobility
3. Stretching exercises
4. Exercises to improve muscle strength and endurance
5. Aerobic exercises
6. Balance – coordination exercises

TEACHING METHOD (lectures – labs – practice etc)

Lectures and practical application

LEARNING OUTCOMES

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

1. To design and apply exercise programs on shallow and deep water
2. To design and apply exercise programs with the appropriate use of aquatic equipment in order to perform strength exercises, range of motion exercise, aerobic and functional



exercises.

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 distinguish the exercise programs on shallow water with the deep water	Presentation and practical application from the students	Intermediate control tests and assignments	
The students will be able to design and apply exercise programs with the appropriate use of aquatic equipment in order to perform strength exercises, range of motion exercise, aerobic and functional exercises.	Practical exercise, practice in groups and study at home	Intermediate control tests and assignments	
		TOTAL	

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. Giouftsidou 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.