

**MODULE TITLE:**

Exercise and metabolic syndrome

RESPONSIBLE FOR THE MODULE:

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POSITION	Professor	
SECTOR	Coaching	
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CO-INSTRUCTORS		

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 metabolic syndrome. The points of this section are the cardio-metabolic risk factors, the signs of the metabolic syndrome and the guidelines for exercise prescription for persons with metabolic syndrome.

The topics of this module are management of metabolic syndrome, appropriate strategies for weight loss, exercise and diabetes

Finally, students will learn how to design and apply exercise programs for persons with metabolic syndrome.

MODULE CONTENTS (outline – titles of lectures)

1. Cardio-metabolic risk factors
2. Defining cardiometabolic risk
3. Abdominal obesity
4. Definition of metabolic syndrome
5. Signs of metabolic syndrome
6. Management of metabolic syndrome
7. Prevention of the metabolic syndrome
8. Examining the links between lifestyle factors and metabolic syndrome
9. Energy expenditure – energy intake
10. Appropriate strategies for weight loss
11. Exercise and diabetes
12. Lipids and exercise
13. Guidelines for exercise prescription

**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 understand the cardio-metabolic risk factors.
2. To know the signs of the metabolic syndrome
3. To know the appropriate strategies for weight loss
4. To design and apply exercise programs for diabetes
5. To design and apply exercise programs for persons with metabolic syndrome

LEARNING OUTCOMES - CONTINUED

<i>Learning Outcomes</i>	<i>Educational Activities</i>	<i>Assessment</i>	<i>Students Work Load (hours)</i>
To understand the cardio-metabolic risk factors.	Lectures, slides and videos show and discussion, study at home	Intermediate control tests and assignments	
To know the signs of the metabolic syndrome	Practical exercise, practice in groups and study at home	Intermediate control tests and assignments	
To know the appropriate strategies for weight loss	Presentation and practical application from the students	Intermediate control tests and assignments	
To design and apply exercise programs for diabetes	Practical exercise, practice in groups and study at home	Intermediate control tests and assignments	
To design and apply exercise programs for persons with metabolic syndrome	Practical exercise, practice in groups and study at home	Intermediate control tests and assignments	
		TOTAL	

OBLIGATORY & SUGGESTED BIBLIOGRAPHY:

1. Christodoulos A., Douda H., Tokmakidis S. (2012). Clinical Study-Cardiorespiratory Fitness, Metabolic Risk, and Inflammation in Children. International Journal of Pediatrics



Article ID 270515, 6 pages doi:10.1155/2012/270515

2. Nolan P., Carrick-Ranson G., James W. Stinear J., Stacey A. Reading S., Lance C. Dalleck L. (2017). Prevalence of metabolic syndrome and metabolic syndrome components in young adults: A pooled analysis. *Preventive Medicine Reports*, 7, 211–215
3. S. O’Neill & L. O’Driscoll (2015). Metabolic syndrome: a closer look at the growing epidemic and its associated pathologies. *obesity reviews* 16, 1–12
4. Eckel R., Grundy S., Zimmet P. (2005). The metabolic syndrome. *Lancet*, 365: 1415–28