

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	SCHOOL OF PHYSICAL EDUCATION & SPORT SCIENCES		
<b>DEPARTMENT</b>	DEPARTMENT OF PHYSICAL EDUCATION & SPORT SCIENCES		
<b>LEVEL OF STUDIES</b>	7		
<b>COURSE CODE</b>	<b>K204</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE TITLE</b>	TECHNIQUES ENHANCING PSYCHOSOCIAL FACTORS OF REHABILITATION		
<b>TEACHING ACTIVITIES</b>	<b>TEACHING HOURS PER WEEK</b>	<b>ECTS CREDITS</b>	
<i>If the ECTS Credits are distributed in distinct parts of the course e.g. lectures, labs etc. If the ECTS Credits are awarded to the whole course, then please indicate the teaching hours per week and the corresponding ECTS Credits.</i>	3	7,5	
<i>Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.</i>			
<b>COURSE TYPE</b> <i>Background, General Knowledge, Scientific Area, Skill Development</i>	Scientific area		
<b>PREREQUISITES:</b>	No		
<b>TEACHING &amp; EXAMINATION LANGUAGE:</b>	Greek		
<b>COURSE OFFERED TO ERASMUS STUDENTS:</b>	No		
<b>COURSE URL:</b>	<a href="https://eclass.duth.gr/courses/GYM125/">https://eclass.duth.gr/courses/GYM125/</a>		

### 2. LEARNING OUTCOMES

#### Learning Outcomes

*Please describe the learning outcomes of the course: Knowledge, skills and abilities acquired after the successful completion of the course.*

The aim of the course is to provide specialized knowledge and to develop skills regarding the role of exercise in the prevention, treatment, and rehabilitation of individuals with chronic cardiovascular, metabolic, and oncological diseases, with emphasis on the biopsychosocial approach, safety, individualized interventions, and interdisciplinary healthcare.

Upon successful completion of the course, postgraduate students will be able to:

- Analyze the principles of cardiac rehabilitation, cardiovascular physiology, and the effects of exercise in complex clinical populations.
- Critically evaluate pharmacological treatment and its interactions with exercise in chronic and multifactorial diseases.
- Interpret and synthesize data related to the physiological, vascular, and psychological adaptations to exercise in cardiometabolic and oncological patients.
- Design and document individualized and safe exercise and rehabilitation programs for cardiometabolic and oncological patients.
- Critically apply the biopsychosocial model in chronic disease/rehabilitation and produce an evidence-based case formulation that leads to a care plan.
- Analyze the lived experience of chronic illness and the needs/barriers of patients and their families/caregivers, translating them into clinical goals and support strategies.

- Use communication and counseling skills to foster a therapeutic relationship, shared decision-making, goal setting, and enhancement of treatment adherence.
- Apply and evaluate advanced communication, counseling, and motivational skills, adopting the biopsychosocial model and the principles of interdisciplinary care.

#### General Skills

*Name the desirable general skills upon successful completion of the module*

*Search, analysis and synthesis of data and information,  
ICT Use*

*Adaptation to new situations*

*Decision making*

*Autonomous work*

*Teamwork*

*Working in an international environment*

*Working in an interdisciplinary environment*

*Production of new research ideas*

*Project design and management*

*Equity and Inclusion*

*Respect for the natural environment*

*Sustainability*

*Demonstration of social, professional and moral responsibility and sensitivity to gender issues*

*Critical thinking*

*Promoting free, creative and inductive reasoning*

The general abilities of the students that are strengthened are:

- Search, analysis and synthesis of data and information, ICT Use
- Adaptation to new situations
- Decision making
- Autonomous work
- Work in an interdisciplinary environment
- Generating new research ideas
- Project design and management
- Critical thinking
- Promoting free, creative and inductive reasoning
- Project planning and management

### 3. COURSE CONTENT

1. Phases and goals of cardiac rehabilitation
2. The cardiac conduction system and exercise
3. Pharmacological treatment in clinical populations and its interaction with exercise
4. Cardio-oncology and exercise
5. Exercise and vascular endothelial adaptations
6. Heart failure and exercise
7. Therapeutic applications of exercise in cancer patients
8. Clinical obesity – classification, perspectives, and treatment methods
9. Severe clinical obesity – management – clinical exercise and its application before and after intervention
10. Psychophysiological factors in body weight regulation in overweight/obese individuals
11. Health Psychology: The biopsychosocial model in chronic disease and rehabilitation / The lived experience of chronic illness and the challenges faced by patients and their families/caregivers
12. Counseling and Communication Skills in Rehabilitation: Building a therapeutic relationship and shared decision-making
13. Motivation and treatment adherence: reinforcing factors – the role of information/education

### 4. LEARNING & TEACHING METHODS - EVALUATION

<b>TEACHING METHOD</b> <i>Face to face, Distance learning, etc.</i>	Face to face and Distance learning
<b>USE OF INFORMATION &amp; COMMUNICATIONS TECHNOLOGY</b>	Use of ICT in Teaching and in Communication with students

(ICT) <i>Use of ICT in Teaching, in Laboratory Education, in Communication with students</i>													
<p style="text-align: center;"><b>TEACHING ORGANIZATION</b></p> <p><i>The ways and methods of teaching are described in detail.</i></p> <p><i>Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research &amp; analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits, Study / creation, project, creation, project. Etc.</i></p> <p><i>The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.</i></p>	<table border="1"> <thead> <tr> <th style="text-align: center;"><i>Activity</i></th> <th style="text-align: center;"><i>Workload/semester</i></th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">39</td> </tr> <tr> <td>Bibliographic research</td> <td style="text-align: center;">80</td> </tr> <tr> <td>Individual work</td> <td style="text-align: center;">65,5</td> </tr> <tr> <td>Final Exams</td> <td style="text-align: center;">3</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;"><b>187,5</b></td> </tr> </tbody> </table>	<i>Activity</i>	<i>Workload/semester</i>	Lectures	39	Bibliographic research	80	Individual work	65,5	Final Exams	3	<b>Total</b>	<b>187,5</b>
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<p style="text-align: center;"><b>STUDENT EVALUATION</b></p> <p><i>Description of the evaluation process</i></p> <p><i>Assessment Language, Assessment Methods, Formative or Concluding, Multiple Choice Test, Short Answer Questions, Essay Development Questions, Problem Solving, Written Assignment, Essay / Report, Oral Exam, Presentation in audience, Laboratory Report, Clinical examination of a patient, Artistic interpretation, Other/Others</i></p> <p><i>Please indicate all relevant information about the course assessment and how students are informed</i></p>													
<ul style="list-style-type: none"> <li>• Essay: 60%</li> <li>• Final exam with short answers questions: 40%</li> </ul> <p>Essay: up to 1200 words at least 5 recent scientific articles since 2000 with a revision table.</p>													

## 5. SUGGESTED BIBLIOGRAPHY

1. Batrakoulis A. (2025). Obesity and Weight Management: The Exercise Professional's Guide to Fitness Programming, Human Kinetics, Champaign IL 61820, USA.
2. Ehrman J.K., Gordon P.M., Visich P.S. & Keteyian P.S. (2023). *Clinical Exercise Physiology*, University Studio Press, Thessaloniki.
3. Raven P.B., Wasserman D.H., Squires W.G. & T.D. Murray (2016). *Exercise Physiology: A Holistic Approach*. Lagos Dimitrios Medical Publications, Athens.
4. Powers S.K. & Howley E.T. (2018). *Exercise Physiology: Theory and Applications of Fitness and Performance*. Broken Hill Publishers Ltd, Nicosia, Cyprus.
5. ACSM (2013). *ACSM's Guidelines for Exercise Testing and Prescription*, Lippincott Williams & Wilkins, ISBN/ISSN: 9781609139551.

## ANNEX OF THE COURSE OUTLINE

### Alternative ways of examining a course in emergency situations

<b>Teacher (full name):</b>	Konstantinos Volaklis
<b>Contact details:</b>	<a href="mailto:kvolakli@phyed.duth.gr">kvolakli@phyed.duth.gr</a>
<b>Supervisors: (1)</b>	No
<b>Evaluation methods: (2)</b>	Written examination with distance learning methods
<b>Implementation Instructions: (3)</b>	<p>The examination in the course will be carried out in subgroups of users in the e-class, depending on the number of participants in the course, on the day according to the examination program announced by the Secretariat.</p> <p>The exam will be conducted through MS-Teams. The link will be sent to students via e-class exclusively to the institutional accounts of those who have registered for the course and have accepted the terms of distance methods.</p> <p>Students will have to log in to the examination room through their institutional account, otherwise they will not be able to participate. They will also take part in the examination with a camera, which will be on during the examination. Before the start of the exam, students will show their identity to the camera, so that they can be identified.</p> <p>Each student will have to answer laboratory exercises, multiple choice, free text, short answer, and critical questions. Each of the questions is scored from 0.5 to 10.0 points depending on the category of the question (100 points maximum).</p>

(1) Please write YES or NO

(2) Note down the evaluation methods used by the teacher, e.g.

- *written assignment* or/and exercises
- written or oral examination with distance learning methods, provided that the integrity and reliability of the examination are ensured.

(3) In the **Implementation Instructions** section, the teacher notes down clear instructions to the students:

a) in case of **written assignment and / or exercises**: the deadline (e.g. the last week of the semester), the means of submission, the grading system, the grade percentage of the assignment in the final grade and **any other necessary information**.

b) in case of **oral examination with distance learning methods**: the instructions for conducting the examination (e.g. in groups of X people), the way of administration of the questions to be answered, the distance learning platforms to be used, the technical means for the implementation of the examination (microphone, camera, word processor, internet connection, communication platform), the hyperlinks for the examination, the duration of the exam, the grading system, the percentage of the oral exam in the final grade, the ways in which the inviolability and reliability of the exam are ensured and any other necessary information.

c) in case of **written examination with distance learning methods**: the way of administration of the questions to be answered, the way of submitting the answers, the duration of the exam, the grading system, the percentage of the written exam of the exam in the final grade, the ways in which the integrity and reliability of the exam are ensured and any other necessary information.

There should be an attached list with the Student Registration Numbers only of students eligible to participate in the examination.