

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF PHYSICAL EDUCATION & SPORT SCIENCES		
DEPARTMENT	DEPARTMENT OF PHYSICAL EDUCATION & SPORT SCIENCES		
LEVEL OF STUDIES	7		
COURSE CODE	K204	SEMESTER	2
COURSE TITLE	Cardiovascular and Psychosocial Rehabilitation		
TEACHING ACTIVITIES <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>		TEACHING HOURS PER WEEK	ECTS CREDITS
		3	7,5
<i>Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.</i>			
COURSE TYPE <i>Background, General Knowledge, Scientific Area, Skill Development</i>	Scientific area		
PREREQUISITES:	No		
TEACHING & EXAMINATION LANGUAGE:	Greek		
COURSE OFFERED TO ERASMUS STUDENTS:	No		
COURSE URL:	https://eclass.duth.gr/courses/GYM125/		

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 an emphasis on safety, the biopsychosocial approach, the individualization of the interventions and the interdisciplinary healthcare.

After completing the course, graduate students will be able to:

- analyze the principles of cardiac rehabilitation, cardiovascular physiology and the effects of exercise therapy on complex clinical conditions
- critically evaluate medication and its interactions with exercise in chronic and multifactorial diseases
- interpret and synthesize data regarding the physiological, vascular, and psychological adaptations of exercise in cardiac and cancer patients
- design and document individualized and safe exercise and rehabilitation programs based on evidence-based practice
- 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

*Project design and management
Equity and Inclusion*

Respect for the natural environment

<i>Decision making</i> <i>Autonomous work</i> <i>Teamwork</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Sustainability</i> <i>Demonstration of social, professional and moral responsibility and sensitivity to gender issues</i> <i>Critical thinking</i> <i>Promoting free, creative and inductive reasoning</i>
• Search, analysis and synthesis of data and information, • Adaptation to new situations • Decision making • Autonomous work • Production of new research ideas • Critical thinking	

3. COURSE CONTENT

- Phases and goals of cardiac rehabilitation
- The heart-conduction system and exercise
- Medication use and exercise interactions in chronic disease
- Cardio-oncology and exercise
- Exercise and adaptations in endothelial function
- Heart failure and exercise
- Exercise therapy in cancer patients
- Clinical obesity - Classification – Therapeutic options and future directions
- Treatment of severe clinical obesity: Exercise pre- and post-surgery
- Psycho-physiological factors for body weight control in overweight and obese individuals
- Health psychology: The biopsychosocial model in chronic illness & rehabilitation. The experience of chronic illness and the challenges faced by the patient and their family/caregivers
- Counseling and communication skills in rehabilitation: shaping the therapeutic relationship and shared decision-making.
- Motivation & adherence to therapy: enhancing factors – the role of information/education

4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD <i>Face to face, Distance learning, etc.</i>	- Face to face Lectures - Laboratory practical applications Distance learning																
USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) <i>Use of ICT in Teaching, in Laboratory Education, in Communication with students</i>	- Use of ICT in Teaching and Laboratory Education - Workshops via e-class MsTeams/ e-class, webmail																
TEACHING ORGANIZATION <i>The ways and methods of teaching are described in detail.</i> <i>Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits, Study / creation, project, creation, project. Etc.</i>	<table> <tr> <th colspan="2">Activity</th></tr> <tr> <th>Activity</th><th>Workload/semester</th></tr> <tr> <td>Lectures</td><td>39</td></tr> <tr> <td>Study Literature</td><td>80</td></tr> <tr> <td>Individual Project (essay)</td><td>60</td></tr> <tr> <td>Project Presentation</td><td>5,5</td></tr> <tr> <td>Final Exams</td><td>3</td></tr> <tr> <td>Total</td><td>187,5</td></tr> </table>	Activity		Activity	Workload/semester	Lectures	39	Study Literature	80	Individual Project (essay)	60	Project Presentation	5,5	Final Exams	3	Total	187,5
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<i>The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.</i>	
STUDENT EVALUATION <i>Description of the evaluation process</i> <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> <i>Please indicate all relevant information about the course assessment and how students are informed</i>	Student evaluation includes: • A written review on a topic of free choice, related to the course content, using recent literature from the last 10 years (ca. 1200 words with a minimum of 8 research articles including a review table): 40% • Final examination: 60%

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 JK, Gordon PM, Visich PS. & Keteyian P.S. (2023). *Clinical Exercise Physiology*. University Studio Press, Thessaloniki.
3. Raven PB, Wasserman DH, Squires WG. & T.D. Murray (2016). *Exercise Physiology: A Holistic Approach*. Medical publications Lagos Dimitrios, Athens.
4. Powers S.K. & Howley E.T. (2018). *Exercise Physiology: Theory and Applications of Endurance and Performance*. Broken Hill Publisher 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

Teacher (full name):	Konstantinos Ath. Volaklis, Associate Professor
Contact details:	kvolakli@phyed.duth.gr
Supervisors: (1)	No
Evaluation methods: (2)	Written examination with distance learning methods
Implementation Instructions: (3)	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. 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. 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. 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).

- (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.