COURSE OUTLINE DISEASES OF THE CIRCULATORY SYSTEM AND EXERCISE

1. GENERAL

SCHOOL	PHYSICAL EDUCATION, SPORT SCIENCE AND OCCUPATIONAL THERAPY		
DEPARTMENT	PHYSICAL EDUCATION AND SPORT SCIENCE		
LEVEL OF STUDIES	ISCED level 6 – Bachelor's or equivalent level		
COURSE CODE	C652	**SEMESTER**	**5th**
COURSE TITLE	DISEASES OF THE CIRCULATORY SYSTEM AND EXERCISE		

TEACHING ACTIVITIES *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.*	**TEACHING HOURS PER WEEK**	**ECTS CREDITS**
	3	6
Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.		

COURSE TYPE *Background, General Knowledge, Scientific Area, Skill Development*	Scientific Area
PREREQUISITES:	YES
TEACHING & EXAMINATION LANGUAGE:	Greek English (Erasmus students)
COURSE OFFERED TO ERASMUS STUDENTS:	Yes
COURSE URL:	https://eclass.duth.gr/courses/

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.

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

- *plan and implement specific exercise programs taking into account the specific heart indication for each patient*
- *improve the physical condition of the patients and to understand the physiological short- and long-term training adaptations of patients with cardiovascular disease*
- *train cardiac patients safety and to recognize their body symptoms contraindicated to continue physical exercise*
- *This course is designed to provide students to the acquisition of knowledge, skills and abilities for the implementation of specific exercise programs. The aim of this course is to train students to*
- *have the ability to design and implement specialized exercise programs, taking into account the pathological heart conditions (e.g. heart`s electrical system, mechanical function and coronary artery circulation)*
- *have the ability to design and implement specialized exercise programs, taking into account the pathological conditions in the peripheral vessels of the circulatory system*

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*

- *Search, analysis and synthesis of data and information, ICT Use*
- *Adaptation to new situations*
- *Decision making*
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- *Equity and Inclusion*
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3. COURSE CONTENT

1. *Epidemiology of cardiovascular disease and the clinical presentations of atheromatosis*
2. *Coronary artery disease and exercise, part I*
3. *Coronary artery disease and exercise, part II*
4. *Arterial hypertension and exercise*
5. *Chronic heart failure and exercise*
6. *Peripheral arterial disease and exercise*
7. *Stroke and exercise*
8. *Valvular diseases and exercise*
9. *Brady-arrhythmias and exercise*
10. *Tachy-arrhythmias and exercise*
11. *Congenital heart disease and exercise*
12. *Genetic heart diseases and exercise*
13. *Coagulation, fibrinolysis and exercise*

4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD *Face to face, Distance learning, etc.*	Lectures face to face (with the possibility of using distance learning tools) Practical application of exercise programs. Note: In the case of distance learning, for the practical application modules it is possible to record and send through e-class specialized exercise programs by the students in case or non-case reports of trainees and dynamic interaction through annotation and group sessions on how to plan, guide and of the exercise program in simulation conditions.
USE OF INFORMATION &	Use of ICT in Teaching

COMMUNICATIONS TECHNOLOGY (ICT) *Use of ICT in Teaching, in Laboratory Education, in Communication with students*	
TEACHING ORGANIZATION *The ways and methods of teaching are described in detail.* *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.* *The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.*	
STUDENT EVALUATION *Description of the evaluation process* *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* *Please indicate all relevant information about the course assessment and how students are informed*	Final examination (60%) Mid-term examination (20%) Presentation of two scientific papers (20%)

Activity	*Workload/semester*
Lectures	39
Mid-term evaluation	14
Individual work and literature search	62
Scientific work	32
Final examination	3
Total	**150**

5. SUGGESTED BIBLIOGRAPHY

1. Tokmakidis SP, Volaklis K., (2008). Exercise as a therapeutic tool for patients with coronary artery disease. Medical publications: Broken Hill Published LTD, Athens.

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	Konstantinos Volaklis, Associate Professor
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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 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 learned 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 they will have open 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 should answer multiple choice questions, free text development, critical thinking. Each of the questions is graded from 0.2 to 2.0 points depending on the question category.