COURSE OUTLINE EXERCISE IN CHILDREN AND ADOLESSCENTS WITH CHRONIC DISEASES

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	C089	**SEMESTER**	7th, 8th
COURSE TITLE	EXERCISE IN CHILDREN AND ADOLESSCENTS WITH CHRONIC DISEASES		

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**
	2	3
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, SKILL DEVELOPMENT
PREREQUISITES:	NO
TEACHING & EXAMINATION LANGUAGE:	GREEK ENGLISH (ERASMUS STUDENTS)
COURSE OFFERED TO ERASMUS STUDENTS:	YES
COURSE URL:	

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

- *understand the fundamental concepts of developmental exercise physiology. Describe how biological and physiological systems develop during childhood and adolescence and analyze how developmental physiology interacts with acute and chronic responses to exercise*
- *know theoretical background related to the pathophysiology of chronic diseases in pediatric populations*
- *evaluate the readiness of children and adolescents to participate in specialized exercise protocols depending on their condition as well as their acute and chronic effects*
- *design and implement appropriate and safe training sessions in order to improve the physical fitness and health of children and adolescents depending on their chronic conditions and comorbidities*

General Skills

Name the desirable general skills upon successful completion of the module

Search, analysis and synthesis of data and information,	*Project design and management*
ICT Use	*Equity and Inclusion*
Adaptation to new situations	*Respect for the natural environment*

Decision making	*Sustainability*
Autonomous work	*Demonstration of social, professional and moral responsibility*
Teamwork	*and sensitivity to gender issues*
Working in an international environment	*Critical thinking*
Working in an interdisciplinary environment	*Promoting free, creative and inductive reasoning*
Production of new research ideas	

- *Search, analysis and synthesis of data and information, ICT Use*
- *Production of new research ideas*
- *Adaptation to new situations*
- *Decision making*
- *Autonomous work*
- *Teamwork*
- *Working in an interdisciplinary environment*
- *Project design and management*
- *Equity and Inclusion*
- *Demonstration of social, professional and moral responsibility and sensitivity to gender*
  issues
- *Critical thinking*
- *Promoting free, creative and inductive reasoning*

3. COURSE CONTENT

1. *Exercise, physical activity and health of children and adolescents*
2. *Developmental Physiology I (nervous system, endocrine system, skeletal system, muscle-tendon system)*
3. *Developmental Physiology II (respiratory system, cardiovascular system, metabolic system, immune system)*
4. *Measuring growth, development and maturation*
5. *Exercise preparticipation health screening, assessment and needs analysis of children and adolescents with chronic diseases*
6. *Designing exercise programs for children and adolescents with Asthma*
7. *Designing exercise programs for children and adolescents with Cystic Fibrosis*
8. *Designing exercise programs for children and adolescents with Congenital Heart Diseases*
9. *Designing exercise programs for children and adolescents with Overweight and Obesity*
10. *Comorbidities of obesity during childhood and adolescence. Prioritization of needs in the designing and implementation of exercise programs*
11. *Designing exercise programsfor children and adolescents with Diabetes Mellitus*
12. *Designing exercise programs for children and adolescents with Juvenile Idiopathic Arthritis*
13. *Designing exercise programs in pediatric oncology populations*

4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD *Face to face, Distance learning, etc.*	Face to face lectures and practical applications

<table>
<tr><td>USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT)
Use of ICT in Teaching, in Laboratory Education, in Communication with students</td><td>Use of ICT in Teaching and Communication with students
• digital slides
• video
• MsTeams/ e-class, webmail</td></tr>
<tr><td>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.</td><td>
<table>
<tr><th>Activity</th><th>Workload/semester</th></tr>
<tr><td>Lectures</td><td>26</td></tr>
<tr><td>Written assignment</td><td>20</td></tr>
<tr><td>Study and analysis of bibliography</td><td>25</td></tr>
<tr><td>Written assignments of cognitive assessment</td><td>2</td></tr>
<tr><td>Final examinations</td><td>2</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Total</td><td>75</td></tr>
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<tr><td>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</td><td>1. Final written examination (60%)
2. Intermediate evaluation with written assignments of cognitive assessment (15%)
3. Written assignment (25%)</td></tr>
</table>

5. SUGGESTED BIBLIOGRAPHY

1. Kotzamanidis C. (2023). Child training health. Kyriakidis Bros Publications S.A., Thessaloniki.
2. Faigenbaum A., Lloyd R., Oliver J. (2022). Essentials of Youth Fitness. Konstandaras Pubications, Athens.
3. Armstrong N., Mechelen W. (2023). Oxford Textbook of Children's Sport and Exercise Medicine. Oxford University Press, United Kingdom.
4. Goldberg B. (1995). Sports and Exercise for Children with Chronic Health Conditions. Human Kinetics Publishers.

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	Alexandra Avloniti, Associate Professor
Contact details:	alavloni@phyed.duth.gr
Supervisors:	No
Evaluation methods:	Written Assignment (25%). Mid-term exams with written cognitive assessment tests (15%). Written examination with distance learning

	methods (60%).
Implementation Instructions:	The written assignment should be submitted via e-class on a specified date. 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 and they will have informed them of 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 0.5 to 2.0 points depending on the question category.