

Course Outline: “4103 - Exercise Physiology”

1. General information

FACULTY/SCHOOL	Physical Education, Sport Science & Nutrition		
DEPARTMENT	Nutrition & Dietetics		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	4103	SEMESTER	4th
MODULE TITLE	Exercise Physiology		
INDEPENDENT TEACHING ACTIVITIES in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits		WEEKLY TEACHING HOURS	CREDITS
Lectures		3	
Laboratory Exercises		1	
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>		4	4
COURSE TYPE	General Knowledge		
PREREQUISITE COURSES	NO		
LANGUAGE OF INSTRUCTION	Greek		
LANGUAGE OF EXAMINATION/ASSESSMENT	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)			

2. LEARNING OUTCOMES

<p>Learning Outcomes</p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult: Συμβουλευτείτε το</i></p> <p>APPENDIX A</p> <ul style="list-style-type: none"> <i>Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.</i> <i>Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and</i> <p>APPENDIX B</p> <p><i>Guidelines for writing Learning Outcomes</i></p>		
<p>The course is the main introductory course on the concepts of applied exercise physiology. Upon successful completion of the course, the student will be able to have the required background to understand the content of relevant courses in the following semesters.</p> <p>Specifically he/she will:</p> <ul style="list-style-type: none"> Understand the physiology related to cardiorespiratory fitness (aerobic, anaerobic), metabolism and body composition Understand methods and measurement of human applied exercise physiology 		
<p>General Competences</p> <p><i>Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?</i></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <i>Search for, analysis and synthesis of data and information by the use of appropriate technologies, Adapting to new situations Decision-making Individual/Independent work Group/Team work Working in an international environment Working in an interdisciplinary environment Introduction of innovative research</i> </td> <td style="width: 50%; border: none; vertical-align: top;"> <i>Project planning and management Respect for diversity and multiculturalism Environmental awareness Social, professional and ethical responsibility and sensitivity to gender issues Critical thinking Development of free, creative and inductive thinking (Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i> </td> </tr> </table>	<i>Search for, analysis and synthesis of data and information by the use of appropriate technologies, Adapting to new situations Decision-making Individual/Independent work Group/Team work Working in an international environment Working in an interdisciplinary environment Introduction of innovative research</i>	<i>Project planning and management Respect for diversity and multiculturalism Environmental awareness Social, professional and ethical responsibility and sensitivity to gender issues Critical thinking Development of free, creative and inductive thinking (Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i>
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<ul style="list-style-type: none"> Search for, analysis and synthesis of data and information Critical thinking Adapting to new situations 		

- Working in an interdisciplinary environment
- Acquisition of the appropriate theoretical cognitive background so that further education is possible
- Decision making
- Group work

3. COURSE CONTENT

1. Introduction
2. Energy metabolism during exercise
3. Aerobic capacity
4. Anaerobic capacity
5. Metabolic adaptations to exercise
6. Cardiorespiratory adaptations to exercise
7. Muscle performance and adaptations to exercise
8. Exercise and health
9. Pretest screening
10. Evaluation of aerobic capacity
11. Evaluation of anaerobic capacity
12. Muscle strength assessment
13. Flexibility and functional ability
14. Summary

4. TEACHING METHODS - ASSESSMENT

<p>MODES OF DELIVERY <i>Face-to-face, in-class lecturing, distance teaching and distance learning etc..</i></p>	Face to face or online synchronous teaching	
<p>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY <i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>	Lectures in Power Point that are made available to students through the online e-class platform	
<p>COURSE DESIGN <i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc. The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.</i></p>	Activity/Method	Semester workload
	Lectures	50
	Laboratory Exercises	10
	Independent Study	40
<p>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS <i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i></p>	I. Written final examination (80%) that includes:	
	<ul style="list-style-type: none"> - Multiple choice questions <p>II. Laboratory Exercises (20%)</p> <ul style="list-style-type: none"> - Multiple choice questions 	

5. SUGGESTED BIBLIOGRAPHY

-Suggested bibliography:

Haff G & Dumke C (2020). Εργαστήρια Εργοφυσιολογίας. Ιωάννης Κωνσταντάρας. Κλεισούρας Β (2011). Εργοφυσιολογία. Broken Hill Publishers.

Κλεισούρας Β (2015). Εργομετρία. Broken Hill Publishers.