

## COURSE OUTLINE NEUROLOGICAL DISEASES: DISORDERS & ASSESSMENT

### 1. GENERAL

<b>SCHOOL</b>	PHYSICAL EDUCATION, SPORT SCIENCE AND OCCUPATIONAL THERAPY		
<b>DEPARTMENT</b>	PHYSICAL EDUCATION AND SPORT SCIENCE		
<b>LEVEL OF STUDIES</b>	ISCED level 6 – Bachelor's or equivalent level		
<b>COURSE CODE</b>	C661	<b>SEMESTER</b>	5 <sup>th</sup>
<b>COURSE TITLE</b>	NEUROLOGICAL DISEASES: DISORDERS & ASSESSMENT		
<b>TEACHING ACTIVITIES</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>		<b>TEACHING HOURS PER WEEK</b>	<b>ECTS CREDITS</b>
		3	6
<b>COURSE TYPE</b> <i>Background, General Knowledge, Scientific Area, Skill Development</i>	Scientific Area,		
<b>PREREQUISITES:</b>	Functional anatomy - Kinesiology		
<b>TEACHING &amp; EXAMINATION LANGUAGE:</b>	Hellenic (Greek) English for Erasmus+ students		
<b>COURSE OFFERED TO ERASMUS STUDENTS:</b>	YES		
<b>COURSE URL:</b>			

### 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.*

Specifically, after the successful completion of the course students will be able to:

- *know the causes and symptoms of the most common neurological diseases*
- *understand the mechanisms of motor problems in people with neurological diseases*
- *assess the severity of motor and functional problems of people with neurological diseases*
- *analyze the effect of exercise interventions and retraining of movement on the function of the motor mechanism of people with neurological diseases*
- *delimit the goals of exercise programs to address the main problems of people with neurological diseases*
- *The aim of the course is to familiarize students with the pathophysiology and symptoms of the most common neurological diseases, as well as the methods of evaluating movement-related problems in patients with neurological diseases.*

#### 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>
<p><b>The general skills that are supported involve:</b></p> <ul style="list-style-type: none"> <li>– <i>Search, analysis and synthesis of data and information, using appropriate ICT</i></li> <li>– <i>Decision making</i></li> <li>– <i>Autonomous work</i></li> <li>– <i>Teamwork</i></li> <li>– <i>Working in an interdisciplinary environment</i></li> <li>– <i>Production of new research ideas</i></li> <li>– <i>Practice of criticism and self-criticism</i></li> <li>– <i>Promoting free, creative and inductive reasoning</i></li> </ul>	

### 3. COURSE CONTENT

<ol style="list-style-type: none"> <li><i>1. Introduction - Structure and function of the nervous system</i></li> <li><i>2. Sensory-motor subsystems of the nervous system</i></li> <li><i>3. Mechanism of production and control of posture and movement</i></li> <li><i>4. Stroke</i></li> <li><i>5. Basal ganglia disorders (Parkinson's &amp; Huntington's disease)</i></li> <li><i>6. Multiple sclerosis</i></li> <li><i>7. Cerebral palsy</i></li> <li><i>8. Dementia</i></li> <li><i>9. Mobility assessment scales and tests for people with neurological disorders</i></li> <li><i>10. Clinical assessment of posture and gait</i></li> <li><i>11. Laboratory analysis of posture and gait</i></li> <li><i>12. Exercise and neuroplasticity</i></li> <li><i>13. Modern approach to the rehabilitation of movement disorders</i></li> </ol>
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### 4. LEARNING & TEACHING METHODS - EVALUATION

<b>TEACHING METHOD</b> <i>Face to face, Distance learning, etc.</i>	Face to face Theoretical lectures Laboratory courses Distance learning	
<b>USE OF INFORMATION &amp; COMMUNICATIONS TECHNOLOGY (ICT)</b> <i>Use of ICT in Teaching, in Laboratory Education, in Communication with students</i>	Use of ICT in teaching and communication with students: digital slides videos MsTeams/ e-class, webmail	
<b>TEACHING ORGANIZATION</b> <i>The ways and methods of teaching are described in detail.</i> <i>Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research &amp; analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning,</i>	<b>Activity</b>	<b>Workload/semester</b>
	Lectures	39
	Lab exercises	30

<i>Study visits, Study / creation, project, creation, project. Etc.</i>  <i>The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.</i>	Study and analysis of the literature	78
	Examinations	3
	Total Course	<b>150</b>
<b>STUDENT EVALUATION</b> <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>	<p>Interim evaluations (40%) Written exams including: multiple choice tests, short answer questions and development questions designed to solve problems (60%)</p> <p>The assessment languages are Greek and English for Erasmus students</p>	

## 5. SUGGESTED BIBLIOGRAPHY

<ol style="list-style-type: none"> <li>1. NICHOLS_LARSEN D. ET AL (2017). NEUROLOGICAL REHABILITATION. ATHENS: KONSTANTARAS, MEDICAL PUBLICATIONS</li> <li>2. CARR J. &amp; SHEPHERD R. (2017). NEUROLOGICAL REHABILITATION (2ND EDITION). ATHENS: PARISIANOU, ANONYMOUS PUBLISHING IMPORT TRADING COMPANY OF SCIENTIFIC BOOKS</li> </ol>
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## ANNEX OF THE COURSE OUTLINE

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

<b>Teacher (full name):</b>	Nikolaos Aggelousis
<b>Contact details:</b>	nagelous@phyed.duth.gr
<b>Supervisors:</b>	Yes
<b>Evaluation methods:</b>	Written or oral examination with distance learning methods, via eClass. Identification and monitoring of examinees through Microsoft Teams
<b>Implementation Instructions:</b>	<p>The examination in the course will be done in randomly created groups of users (examinees). The compositions of the user groups will be announced in time.</p> <p>The total examination duration of each group will be 1 hour. In the first twenty minutes of each examination period, the examinees will be identified through the MS Teams app. For this purpose, there must be a camera, microphone and headphones connected to their terminal device (PC or smartphone). The relevant link will be sent via eClass, exclusively</p>

	<p>to the institutional accounts of those who have registered for the course and have accepted the terms of distance examination. For identification, students will display their student ID on camera when requested.</p> <p>The main examination will be carried out through the "Exercises" application of eClass. In particular, at the beginning of the second twenty minutes of each examination period, an exercise entitled "Examination - Group X (where X = 1 to n)" will be activated in the eClass, which will include 20 questions. The time limit for answering the 20 questions will be 30 minutes. During this period, all questions should be answered and finalized. Each of the questions will be graded with 0.5 points.</p> <p>Students should log in to the eClass platform through their institutional account.</p> <p>Also during the exam the camera and microphone of the examinees have to be continuously activated and the MS Teams application should be open.</p>
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