

**FTR311 - Neurophysiological Approaches II**

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Neurophysiological Approaches II	FTR 311	6. semester/1.term Fall	3	2	-	3
<b>Prerequisites</b>						
Course language	Turkish					
Course type	Compulsory					
Learning and teaching strategies	Lecture, demonstration, case discussion, Qusetion&answer					
Instructor (s)						
Course objective(Aim of course)	To express the clinical features and reasons of movement and function impairments after stroke, provide the understanding and practicing of the basic features related to neurophysiological approaches, measurements and assessments in stroke rehabilitation and develop the problem solving mechanism in the physiotherapy and rehabilitation after stroke.					
Learning outcomes	<ol style="list-style-type: none"> <li>Defines the clinical features seen after stroke and assosiate the neurophysiological approaches used in treatment, Defines the normal movement and function and compares with movement and function impairments after stroke.</li> <li>Understands and practices the basic and neurophysiological based measurement and assessment approaches used after stroke.</li> <li>Defines the clinical problems after stroke, practices the clinical decision making process, plans the treatment program</li> <li>Compares the common and updated neurophysiological treatment/approaches with patient based approaches, chooses and basicly practices.</li> </ol>					
References	<p>A. Ayşe Karaduman, Sibel Aksu Yıldırım, Öznur Tunca Yılmaz. İnme sonrası fizyoterapi ve rehabilitasyon. Ankara : Pelikan Yayıncılık, 2013</p> <p>Karaduman A, Tunca Yılmaz Ö. Fizyoterapi ve Rehabilitasyon 3, Nörolojik Rehabilitasyon, Kardiyopulmoner Rehabilitasyon, Ankara : Pelikan Yayıncılık, 2016</p> <p>Editor: Sue Raine, Linzi Meadows, Mary Lynch-Ellington ; çevirenler: Ayşe Karaduman, Sibel Aksu Yıldırım, Öznur Tunca Yılmaz. Bobath kavramı : nörolojik rehabilitasyonda teori ve klinik uygulama. Ankara : Pelikan Kitabevi, 2012</p> <p>Joel Stein Çeviri ed: Tansu Arasıl, Erhan Arif Öztürk. İnme iyileşmesi ve rehabilitasyonu. Ankara : Pelikan Yayıncılık, 2012</p>					

**Course outline weekly:**

Weeks	Topics
1. Week	Cerebrovascular accidents (description, neuroanatomy, risk factors), Clinical features after stroke, medical treatment, general rehabilitation principles
2. Week	Neuronal Plasticity, Motor Learning
3. Week	Normal movement, tonus and postural control and their differences after stroke Neurodevelopmental treatment approach (Bobath) in stroke, basic features and principles
4. Week	NDT- clinical problem solving approaches and assessment methods with Bobath
5. Week	NDT-case study in assessment with Bobath
6. Week	NDT- positioning, trunk and upper extremity treatment and mobilization methods with Bobath approach
7. Week	NDT- lower extremity treatment, balance and gait training with Bobath approach, case studies
8. Week	Midterm exam
9. Week	Johstone neurodevelopmental therapy method (Panat neurophysiological approaches)
10. Week	theoretical infrastructure of Brunnstrom approach in stroke rehabilitation
11. Week	Brunnstrom method in stroke rehabilitation
12. Week	Current Approaches in Stroke Rehabilitation
13. Week	Robotic Treatments and Virtual Reality Applications in Stroke Rehabilitation
14. Week	Constraint-Induced Movement Therapy (CIMT) in Stroke rehabilitation
15. Week	An overview

**ECTS (Student Work Load Table)**

Activities	Number	Duration	Total Work Load
Course Duration (X14 )	14	3	42
Laboratory			
Practice	14	2	28
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)			
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	3	3
Final Exam Preparation Time	1	6	6
<b>Total Work Load ( hour ) / 25(s)</b>	<b>75 / 25=3.16</b>		
<b>ECTS</b>	<b>3</b>		

**Evaluation System**

Mid-Term Studies	Number	Contribution
Midterm exams		
Quiz		
Laboratory		
Practice	1	%100
Field Study		
Course Internship (If There Is)		
Homework's		
Presentation and Seminar		
Project		
Other evaluation methods		
<b>Total Time To Activities For Midterm</b>		<b>100</b>
<b>Final works</b>		
Final	1	%50
Homework		
Practice	1	%50
Laboratory		
<b>Total Time To Activities For Midterm</b>		<b>100</b>
Contribution Of Midterm Studies On Grades		%40
Contribution Of Final Exam On Grades		%60
<b>Total</b>		<b>100</b>

**The relationship between learning outcomes and the program qualifications of the courses**

Program Qualifications	Learning outcomes			
	L.O.1	L.O. 2	L.O.3	L.O.4
1-Acquire proficient infrastructure related to the field of Physiotherapy and Rehabilitation, gain the ability to use theoretical and practical knowledge and skills in this field.	5	5	5	5
2-Identify, define the factors affecting health and gain problem-solving skill by using the information they have; plan and implement a treatment and exercise program with appropriate evidence-based methods and new techniques.	5	5	5	5
3-Gain the ability to use information technologies effectively, as well as the ability to select and use modern tools, techniques and agents necessary for physiotherapy and rehabilitation applications.	5	5	5	5
4-Design individual and multidisciplinary research, keep records, prepare reports, analyze and interpret results for quality service and research in health sciences.				
5-They conduct a literature search to access the information by using evidence-based databases and information sources.				
6-Gain autonomy in interdisciplinary and individual studies, ability to work effectively and take responsibility and awareness of the universal and social effects of their professional practice.				
7-Adopt life-long learning; contribute to quality improvement, field-related training and introductory programs and exhibit their professional behavior at national and international level.				
8-Have deontological and ethical awareness in professional researches and applications.				

**Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent**