

**FTR207 - Electrophysical Agents I**

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Electro physical Agents	FTR 207	3. semester/fall term	2	2	-	4
Prerequisites	-					
Course language	Turkish					
Course type	Compulsory					
Learning and teaching strategies	Lecture, Question-answer, case study, Clinical Practice					
Instructor (s)						
Course objective(Aim of course)	To provide knowledge of electrophysical principles of electrotherapy modalities, tissue responses to modalities, and mechanisms and application techniques of low and medium frequency currents.					
Learning outcomes	1. Understands the electrical properties of tissues 2. Understands the properties and physiological effects of galvanic currents and low frequency currents, diadynamic currents 3. Understands the stimulation principles of muscle and nerve					
References	- Arzu Razak Özdiñçler, Fiziksel modaliteler ve elektroterapi, İstanbul : İstanbul Tıp Kitabevi, 2014 -Alain. Bélanger ; çeviri editörü, Edibe Yakut , çevirenler, Edibe Ünal, Murat Dalkılıç, Defne Kaya. Kanıta dayalı elektroterapi, Ankara : Pelikan, 2012 -Nihal Şimşek, Elektroterapide temel prensipler ve klinik uygulamalar, Ankara : Pelikan Kitabevi, 2015					

**Course outline weekly:**

Weeks	Topics
1. Week	History of electrotherapy, application of flat galvanized current and effects of flat galvanized current.
2. Week	Iontophoresis and medical galvanism applications
3. Week	Iontophoresis and medical galvanism applications
4. Week	Modified forms of galvanic current and applications of modified galvanic current
5. Week	Modified forms of galvanic current and applications of modified galvanic current
6. Week	Theoretical knowledge and practical applications of electrodiagnosis
7. Week	Practical applications of electrodiagnosis
8. Week	MIDTERM EXAM
9. Week	Theoretical knowledge and practical applications of High Voltage Pulsed Galvanic Current (HVPGS)
10. Week	Theoretical knowledge and practical applications of low frequency currents
11. Week	Practical applications of low frequency currents
12. Week	Theoretical knowledge and practical applications of Diadynamic currents
13. Week	Theoretical knowledge and practical applications of Diadynamic currents Ultra-reiz currents
14. Week	An Overwiev
15. Week	An Overwiev

**ECTS (Student Work Load Table)**

Activities	Number	Duration	Total Work Load
Course Duration (X14 )	14	2	28
Laboratory			
Practice	14	2	28
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	1	14
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	9	9
Final Exam Preparation Time	1	12	12
<b>Total Work Load ( hour) / 25(s)</b>	91 / 25 = 3.64		
<b>ECTS</b>	4		

**Evaluation System**

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

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

<b>Program Qualifications</b>	<b>Learning outcomes</b>		
	<b>L.O.1</b>	<b>L.O. 2</b>	<b>L.O.3</b>
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
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
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
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**