

## ELECTROPHYSICAL AGENTS I

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Electro physical Agents	FTR 207	2.year/ 1.term fall	2	2	-	4
Prerequisites	-					
Course language	Turkish					
Course type	Compulsory					
Learning and teaching strategies	Lecture ,applications					
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	<ol style="list-style-type: none"><li>1. Improves their understanding of excitability properties of nerve and muscle</li><li>2. Learns fundamentals of low and medium frequency currents</li><li>3. Learns the electrical properties of tissues</li></ol>					
References	Lesson notes of Hacettep University Faculty Of Health Science					

**Course outline weekly:**

Weeks	Topics
1. Week	Electrophysical and thermal principles
2. Week	Electrical properties of tissues
3. Week	Properties of galvanic current and Iontophoresis
4. Week	Medical and surgical galvanism
5. Week	Sensory and motor nerve activation, effects of stimulation on innervated and denervated muscle
6. Week	Modified galvanic current and its physiological properties
7. Week	Faradic current
8. Week	Overview
9. Week	High Voltage Pulsed Galvanic Current
10. Week	Physiology of Pain, Mechanisms of TENS and its application
11. Week	Diadinamic current
12. Week	Diadinamik akım özellikleri ve uygulamaları
13. Week	Interferential current
14. Week	Microcurrent, Ultra-reiz and Russian Currents
15. Week	General evaluation

**ECTS (Student Work Load Table)**

<b>Activities</b>	<b>Number</b>	<b>Duration</b>	<b>Total Work Load</b>
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

Mid-Term Studies	Number	Contribution
Midterm exams	1	%50
Quiz		
Laboratory		
Practice	1	%50
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	%50
Homework		
Practice	1	%50
Laboratory		
<b>Total Time To Activities For Midterm</b>		100
Contribution Of Midterm Studies On Grades		%50
Contribution Of Final Exam On Grades		%50
<b>Total</b>		100

**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
1. Sufficient background in basic- clinical medical sciences and physical therapy and rehabilitation discipline; ability to use theoretical and practical skills and knowledge in these fields with analytical thinking	5	5	
2. Ability to determine, define, formulate and solve the factors that affect health; ability to choose and apply evidence based techniques and new methods for this aim.			5
3. Ability to choose and use modern equipments, techniques and modalities for physiotherapy and rehabilitation practices; effectively use the informatique technologies.			5
4. Ability to design multidisciplinary research, keep records, collect appropriate data, analysis and interpret results.			
5. Ability to attain new knowledge, make literature reviews, use medical databases and sources of information devoted to medical- health sciences			
6. To work autonomously and effectively in health team and self confidence to take responsibility			
7. To internalize characteristically development, literate and lifelong learning; quality development, to contribute education and promotion programs in field, to			

internationalize their professional behavior.			
8. To have professional deontology and ethical awareness			

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