

Philadelphia University	 <b>PHILADELPHIA UNIVERSITY</b> <small>THE WAY TO THE FUTURE</small>	Approval date: <b>8-10-2025</b>
Faculty: Allied medical sciences		Issue:
Department: Physiotherapy		Credit hours: 2
Academic year 2025/2026		<b>Course Syllabus</b> Bachelor

### Course information

Course#	Course title	Co /Pre-requisite
1120223	Physiotherapy and Electrical Therapy	--
Equivalent 1120270	Equivalent Electro physical agents	
Course type		Class time
<input type="checkbox"/> University Requirement <input type="checkbox"/> Faculty Requirement <input checked="" type="checkbox"/> Major Requirement <input type="checkbox"/> Elective <input type="checkbox"/> Compulsory		Sun/ Tuesday  8:15 -9:15
		Room # 9314

### Instructor Information

Name	Office No.	Phone No.	Office Hours	E-mail
<i>Assistant Professor Dr.asmaa atwa</i>	09-15409	2465	Sat (10:15-11:15) Sun (10:15-13:15) Tuesday(10:15-12:15)	atwaa@philadelphia.edu.jo

### Course Delivery Method

Course Delivery Method			
<input checked="" type="checkbox"/> Physical	<input type="checkbox"/> Online	<input type="checkbox"/> Blended	
Learning Model			
Precentage	Synchronous	Asynchronous	Physical
			100%

### Course Description

This course covers the details of the modalities used with patients Introduction to Basic Concept of electro physical modalities, Heating modalities, Infrared Therapy (IR), Low Level Laser Therapy (LASER) Ultraviolet therapy, Shortwave diathermy (SWD), Microwave diathermy (MWD), Ultrasound Therapy (US), Shock wave Therapy. Principles of hydrotherapy, Whirlpool and contrast bath, Physiological effects of hydrotherapy, Aquatic therapy, principles benefits and uses, Hydrotherapy in selected disorders, Thermo therapy, hydro-collator and paraffin wax, Mud and Peloids, Physiological effects of cold, Cryotherapy, Fluid therapy and Heat versus cold. Introduction to Basic Concept of electrical stimulation, Mechanism of action of electrical stimulation, Low Frequency current: Faradic current, TENS, HVPGS, Diadynamic current, Russian Current, Interferential Current, Direct Current (Iontophoresis), Micro Currents,

Electro diagnosis and Biofeedback.

## Course Learning Outcomes

	Number	Outcomes	Corresponding Program outcomes
<b>Knowledge</b>			
1	K1	describe different types of electro physical agents and their characteristics	Kp1
2	K2	Recognize the basic principles, indications, contraindications, precautions, methods of application and safety issues of different types of electro physical agents.	Kp1
3	K3	Justify the selection of types of electro physical agents based on patient/ client condition and the treatment area	Kp2
4	K4	Explain the principles of tissue impedance and the impact on the current flow	Kp1
<b>Skills</b>			
5	S1	Apply different electrotherapy and hydrotherapy modalities in accordance with standard guidelines and safety precautions	Sp1
6	S2	Demonstrate evidence –based practice to support treatment intervention using electro physical and thermal agents	Sp3
<b>Competences</b>			
7	C1	Design a treatment plan for a patient /client using electro physical agents based on to assessment outcome	Cp2

## Learning Resources

Course textbook	- -watsonT.and Nussbaum E.L (2021) electro physical agents: evidence based practice.13 <sup>th</sup> edition .Elsevier
Supporting websites	- American Physical Therapy Association (APTA): <a href="http://www.apta.org/">http://www.apta.org/</a> - Chartered Society of Physiotherapy: <a href="http://www.csp.org.uk/">http://www.csp.org.uk/</a>
Supporting references	- Michael A. Pagliarulo (2020) Introduction to Physical Therapy (6thed) - Roberton V.Ward,lowj.l.and reed A.electrotherapy explained principles and practice .4 <sup>th</sup> edition .butterworth-heineman
Teaching Environment	<input checked="" type="checkbox"/> Classroom <input type="checkbox"/> laboratory <input checked="" type="checkbox"/> Learning platform <input type="checkbox"/> Other

## Meetings and subjects timetable

Week	Topic	Learning Methods	Tasks	Learning Material
1	Pain physiology	Lecture Case scenarios	Mid	Text book
2	Introduction to thermal modalities	Lecture and collaborative learning	Mid	Text book
3	Superficial Heat Modalities	Lecture and collaborative learning	Mid	Text book
4	Paraffin Wax	Lecture and collaborative learning	Mid Quiz1	Text book
5	Infrared (IR)	Lecture and collaborative learning	Mid	Text book
6	Cryotherapy	Lecture and Case scenarios	Mid	Text book
7	Mid exam	Mid exam	Mid exam	All previous topics unless cryotherapy
8	Ultrasound, ultraviolet	Lecture and collaborative learning	Final	Text book
9	Spine traction Therapy, iontophoresis	Lecture and collaborative learning	Final	Text book
10	Shortwave Diathermy	Lecture and collaborative learning	Final Quiz2 (16/12/2024)	Text book
11	Extracorporeal Shock Wave Therapy (ESWT) in physical therapy	Lecture and collaborative learning	Final	Text book
12	Electrical Stimulation	Lecture and Case scenarios	Final Assignments (4/1/2025)	Text book
13	Electrical Stimulation-2	Lecture and Case scenarios	Final	Text book
14	laser Therapy	Lecture and collaborative	Final Quiz 3	Text book

		learning		
<b>15</b>	Hydrotherapy	Lecture and Case scenarios	Final	Text book
<b>16</b>	Final exam	Final exam	Final exam	All previous topics

\* includes: Lecture, flipped Class, project- based learning, problem solving based learning, collaborative learning

☐ Online session

### Course Contributing to Learner Skill Development

Using Technology
Use data-bases and platforms effectively to support evidence based knowledge and practice
Communication skills
Self-reflection, friendliness, confidence, empathy, respect, responsiveness, morality. Students will be introduced to communicate with patient regarding outcomes and therapeutic program
Application of concepts learnt
Apply leadership and lifelong learning skills. Students will be introduced to interpretation and integration of finding from multiple sources.

### Assessment Methods and Grade Distribution

Assessment Methods	Grade Weight	Assessment Time (Week No.)	Link to Course Outcomes
<b>Mid Term Exam</b>	<b>% 30</b>	<b>7<sup>th</sup> week</b>	<b>K1,K2,K3,K4</b>
<b>Various Assessments *:</b> <b>Quiz 1</b> <b>Quiz 2</b> <b>assignment</b>	<b>% 30</b>	<b>9-11-2024</b> <b>16-12-2024</b> <b>4-1-2025</b>	<b>S1,S2,C1</b>
<b>Final Exam</b>	<b>% 40</b>	<b>16<sup>th</sup> week</b>	<b>K1,K2,K3,K4,S1,S2 andC1</b>
<b>Total</b>	<b>%100</b>		

\* includes: quiz, in class and out of class assignment,

## Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Learning Method*	Assessment Method**
<b>Knowledge</b>			
<b>K1</b>	KP1 demonstrate profound and contemporary knowledge in basic, clinical, medical, and psychosocial sciences relevant to the practice of physical therapy.	Lecture and collaborative learning	Quiz and exams
<b>K2</b>	KP2 integrate knowledge and skills gained in basic, clinical, medical and behavioral sciences and apply them into patient care.	Lecture and Case scenarios	Quiz and exams
<b>Skills</b>			
<b>S1</b>	Develop critical analysis and decision-making skills and ability to integrate basic and clinical knowledge within an evidence based framework	Lecture and Case scenarios	Quiz, exams and Individual assignment
<b>S2</b>	Demonstrate effective clinical, interpersonal and communication skills in examination, treatment plan development and management of various conditions across the life span in the field of physical therapy.	Lecture and Case scenarios	Quiz, exams and Individual assignment
<b>Competencies</b>			
<b>C1</b>	Demonstrate competence entry –level skills and abilities to critically reason in terms of screening, evaluation, reevaluation, diagnosis prognosis and development of a plan of care for clients and patient seeking physical therapy services.	Lecture and Case scenarios	Quiz, exams and Individual assignment

\* includes: Lecture, flipped Class, project- based learning, problem solving based learning, collaborative learning

\*\* includes: quiz, in class and out of class assignment

## Course Policies

Policy	Policy Requirements
<b>Passing Grade</b>	The minimum passing grade for the course is (50%) and the minimum final mark recorded on transcript is (35%).
<b>Missing Exams</b>	<ul style="list-style-type: none"> <li>Missing an exam without a valid excuse will result in a zero grade to be assigned to the exam or assessment.</li> <li>A Student who misses an exam or scheduled assessment, for a legitimate reason, must submit an official written excuse within a week from the exam or assessment due date.</li> <li>A student who has an excuse for missing a final exam should submit the excuse to the dean within three days of the missed exam date.</li> </ul>
<b>Attendance</b>	The student is not allowed to be absent more than (15%) of the total hours prescribed for the course, which equates to six lectures days (M, W) and seven lectures (S, T, R). If the student misses more than (15%) of the total hours prescribed for the course without a satisfactory excuse accepted by the dean of the faculty, s/he will be prohibited from taking the final exam and the grade in that course is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college, then withdrawal grade will be recorded.
<b>Academic Honesty</b>	Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as: cheating, plagiarism (academic theft), collusion, and violating intellectual property rights.

## Program Learning Outcomes to be assessed in this Course

Number	Learning Outcome	Course Title	Assessment Method	Target Performance level
<b>KP1</b>	Demonstrate profound and contemporary knowledge in basic, clinical, medical, and psychosocial sciences relevant to the practice of physical therapy.	Electro physical agents	Exam, quizzes	80% of students will get 60% or above of exam marks
<b>Kp2</b>	Integrate knowledge and skills gained in basic, clinical, medical and behavioral sciences and .apply them into patient care	Electro physical agents	Exam, quizzes	80% of students will get 60% or above of exam marks
<b>Sp1</b>	Demonstrate competent entry-level skills and abilities to critically reason in terms of screening, evaluation, re-evaluation, diagnosis, prognosis, and development of a plan of	Electro physical agents	Quiz, exams and Individual assignment	80% of students will get 60% or above of exam marks

	care for clients and patients seeking physical therapy services.			
<b>Sp3</b>	Adhere to legal, ethical, and safe physical therapy practice that respects human dignity, culture, and diversity within a global society	Electro physical agents	Quiz, exams and Individual assignment	80% of students will get 60% or above of exam marks
<b>Cp2</b>	Demonstrate competence in accessing, appraising, and implementing evidence-based literature to enhance physical .therapy care delivery	Electro physical agents	Quiz, exams and Individual assignment	80% of students will get 60% or above of exam marks

### Description of Program Learning Outcome Assessment Method

Number	Detailed Description of Assessment
<b>Kp1</b>	Quizzes and exams.
<b>Kp2</b>	Quizzes and exams
<b>Sp1</b>	Quiz, exams and Individual assignment
<b>Sp2</b>	Quiz, exams and Individual assignment
<b>Cp1</b>	Quiz, exams and Individual assignment

**Good luck**