

Course Book

Course Description	Provide an introduction to key physical principles applied in physiotherapy through education and practical training. The course covers a wide range of topics needed in physiotherapy including: Electromagnetic radiation, heat, ultrasound, electrotherapy, force and motion, measurements and units. The students gain knowledge in variety of Physical concepts and will be prepared for other courses that are closely related to physics such as therapeutic equipment.				
Course objectives	Develop basic understanding of medical physics concepts. Develop scientific communication skills. Provide education and practical training for students and prepare them for careers in physiotherapy. Provide a basic knowledge for the Therapeutic equipment course.				
Student's obligation	Students should attend the lectures Students should take all exams including daily quizzes and practical exam				
Required Learning Materials	Principle of electricity, radiation, ultrasound, thermodynamic, force and motion, etc..				
Evaluation	Task	Weight (Marks)	Due Week	Relevant Learning Outcome	
	Paper Review				
	Assignments	Homework			
		Class Activity			
		Report			
		Seminar			
		Essay			
		Project			
	Quiz				
	Lab.				
	Midterm Exam				
	Final Exam				
	Total				

Specific learning outcome:	1- Ability to develop general knowledge in physiotherapy and understand the subjects of the module 2- Ability to understand and use, of general physics in physiotherapy. 3- Demonstrate the ability to think critically and solve problems 4-Ability to apply knowledge in practice 5- Ability to make reasoned decision. 6-Demonstrates research skills to investigate, evaluate or problem solve. 6-	
Course References:	Fundamentals of Electrotherapy & Biomedical Physics by Ashish Kakkad Textbook of Electrotherapy by Jagmohan Singh	
Course topics (Theory)	Week	Learning Outcome
Introduction to Medical Physics	1	1&2
Physics and Measurements	2	2&4
Force and Laws of Motion	3	2
Temperature and Heat	4	2&3
Electromagnetic Spectrum	5	4
Electricity	6	2&5
Sound Wave	7	2&5
Energy and Power	8	2&6
Fluid Mechanics	9	2&6
Practical Topics	Week	Learning Outcome
Reflection of light and Snell's law	1&2	2&5&4
Focal length of concave lens by displacement method	3&4	2&3&4
Diffraction grating, measuring the wavelength of light	5&6	2&3&4

Ohm's law	7&8	2&3&4
Spiral spring	9&10	2&6&4

Questions Example Design

1. define:
2. Explain:
3. Calculate:
4. Fill in the blanks:
5. Multiple choices:
6. Enumerate:
7. Match the following:
8. True or False

Extra notes:

External Evaluator

I do approve the content of this course-book. It does cover the general concepts of physics in physiotherapy. The topics are broad and are aimed to equip students with required knowledge to enable them to understand the physics concept of the physiotherapy equipment in latter stages.

chiman

Lecturer
Chiman Bakir Ismail