

Ministry of Higher Education and Scientific research



Department of Physics

College of Education-Shaqlawa

University of Salahaddin

Subject: *Medical Physics-Second semester*

Course Book – (4th Year)

Lecturer's name: *Dr. Dilshad Salih Ismael*

Academic Year: 2022/2023

The students are required to take two or three exams during the period of the course. 35 marks will be assigned to these exams. 5 marks will be assigned to the assignments given at the end of each chapter(including quizzes) and activities in the class room. There will be a final exam on sixty marks.

لیره ماموستا بهر پرسیاریتی قوتابی خویندکار رووندکاتوه سهبارت به کورسهکه بو نمونه نامادهبوونی قوتابیان له وانهکاندا، له تاقیکردنهکاندا، راپورت و ووتار نووسین... هتد.

13. Forms of teaching

Our lecture is depend directly on showing the strong point in the lecture via data show depending on the power point program... and solve problem on the white board with the students.

لیره ماموستا ریگهی وانه ووتنهوه دنوووسیت، بو نمونه: داتاشو و پاوه پوینت، سهه تهخته پرش، تهخته سی، سمارتورد یان مهلهمه... هتد

14. Assessment scheme

The students are required to take two or three exams during the period of the course. 35 marks will be assigned to these exams. 5 marks will be assigned to the assignments given at the end of each chapter(including quizzes) and activities in the class room. There will be a final exam on sixty marks.

لیره ماموستا جوړی ههلسنگاندن (تاقیکردنهکان یان نهزمونهکان) دنوووسیت بو نمونه تاقیکردنهوه مانگانه، کویزهکان، بیرکردنهوهی رهنهگرانه (پریزمنتهیشن)، راپورت نووسین، ووتار نووسین یان نامادهبوونی خویندکار له پویدا... هتد. نامانه چهند نمره له سهه دهییت و ماموستا چون نمرهکان دابهشدهکات؟

15. Student learning outcome:

پرکردنهوهی نهه خانیه زور گرنگه، ماموستا دهه نهجمهکانی فیربوون دنوووسیت. بو نمونه: روونی نامانجه سهه کیهکانی کورسهکه (بابهتهکه) بو خویندکار گونجاندنی ناوه روکی کورسهکه به پیویستی دهه وه و بازاری کار قوتابی چی نوئ فیردهییت له ریگهی پیدانی نهه کورسهوه؟

This should not be less than 100 words

16. Course Reading List and References:

Medical Physics By John R. Cameron and James G. Skofronick

- Key references:
- Useful references:
- Magazines and review (internet):

17. The Topics:

Lecturer's name

<p>CHAPTER 1: Pressure in the Body (2 weeks)</p> <ol style="list-style-type: none"> 1- Measurement of pressure in the body 2- Pressure inside the skull 3- Detecting the hydrocephalus 4- Pressure in the Eye 5- Pressure in the Digestive System 6- Pressure (Stress) in the Skeleton 7- Pressure in the Urinary Bladder 8- Pressure Effect While Diving 9- Hyperbaric oxygen therapy <p>Chapter 2: Physics of the Cardiovascular System. (2weeks)</p> <ol style="list-style-type: none"> 1- Components of the cardiovascular system 2- Blood components 3- O₂ and CO₂ exchange in the capillary system 4- Work done by the heart 5- Pressure across the blood vessel wall (Transmural Pressure) 6- Bernoulli's principle applied to the cardiovascular system 7- Blood flow-laminar and turbulent 8- Heart sounds 9- The physics of some cardiovascular diseases 10- The functions of the blood <p>Chapter 3: Sound in Medicine (1week)</p> <ol style="list-style-type: none"> 1- The Intensity of a Sound Wave 2- The Acoustic Impedance (Z) 3- Sound/Ultrasound Wave Reflection, Transmission and Absorption 4- Percussion in Medicine 5- The Stethoscope 6- The Ultrasound 7- Ultrasound Transducer Types 8- Ultrasound Picture of the Body 9- Type of Ultrasound Mode 10- Doppler Technique 	<p>Dr. Dilshad Salih Ismael ex: (3 hrs)</p>
<p>18. Practical Topics (If there is any)</p>	
<p>In this section The lecturer shall write titles of all practical topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture</p>	<p>Lecturer's name ex: (3-4 hrs)</p>

20. Extra notes:

Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks.

21. Peer review

پیداچوونہودی ھاوہل

This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.

(A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).

ئەم كۆرسبووكە دەبىتت لەلایەن ھاوھلئىكى ئەكادىمىيەو سەير بكرىت و ناوھروكى بابەتھكانى كۆرسەكە پەسەند بكات و جەند ووشەپەك بنوسىت لەسەر شىاوى ناوھروكى كۆرسەكە و واژووى لەسەر بكات.
ھاوھل ئەو كەسەيە كە زانىارى ھەبىتت لەسەر كۆرسەكە و دەبىتت پلەى زانستى لە مامۇستا كەمتر نەبىتت.