



Course Specifications

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| Course name: | Pharmacology II |
| Course code | WNR-12-02 |
| Credit | 2 Hours |
| Course stages : | 2nd year |
| Semester: | Second semester. |
| Teacher name | Nassem Samir saker nassem |
| Course description | |
| Human Physiology is a single-semester, 4-credit-hour course designed to provide students with an understanding of the function, regulation and integration of human body organ systems. Emphasis is placed on homeostatic maintenance in health as well as in some disease processes. | |
| General objectives / Goals | |
| By the completion of this course the student will be able to: | |
| 1. Basic concept and knowledge of structure and functioning of different systems in body. | |
| 2. To understand integrated aspect of functioning of the individual and all the systems in totality in body. | |
| 3. To understand the integration of the combined knowledge of Physiology, Anatomy and Biochemistry. | |
| 4. 4. To know all the common clinical conditions of deranged normal physiology in body - clinical usefulness for knowing Physiology. | |
| 5. To be able to solve simple clinical problems with the help of their knowledge in Physiology. | |
| 6. Promote and inculcate curiosity and skill for elective learning in the field of research. | |

List of contents:

| Week number | Lecture title | Expected Date/ |
|--------------------|---|-----------------------|
| 1. | Introduction to Human Physiology: 1.1. Introduction of Physiology 1.2. Physiology of Body fluids(water) and electrolyte | 16/4/ 2023 |
| 2. | Physiology of Digestive System: 2.1. Composition and Functions of Salivary Secretion 2.2. Swallowing 2.3. Gastric Secretion. 2.4. Digestion and Regulate the Secretion | 23/4/2024 |
| 3. | Physiology of Muscular System: 3.1. Study the general function of the Muscles. 3.2. Types and functions of different parts of these organs. 3.3. Contraction of skeletal muscles. 3.4. Sliding theory and its steps. 3.5. Action potential and ions fluxes. | 30/4/2024 |
| 4. | Physiology of Respiratory system 4.1. Types of respiration 4.2. Pulmonary ventilation or respiratory cycle 4.3 Factors Control Gases Pressure 4.4. Respiratory Muscles 4.5. Volume of pulmonary air space | 7/5/2024 |
| 5. | Physiology of The Cardiovascular System Part1: 5.1. Study the functional properties of the heart. 5.2. Action potential of the cardiac muscle. 5.3. Conductivity and conducting system. 5.4. Rhythmicity. | 14/5/2024 |
| 6. | Physiology of Nervous System: 7.1. Membrane potential. 7.2. Types of membrane channels. 7.3. Action potential. 7.4. Synapses and Conduction of Nerve Impulses –action potentials. 7.4.1. Types of synapses. 7.4.2. Synapses activity. 7.5. Reflexes. | 21/5/2024 |
| 7. | Physiology of The Urinary System: 8.1. Study the general function of the urinary system 8.2. The blood and nerve supply of the kidney 8.3. The function of the kidney 8.4. Urine formation 8.4.1. Glomerular filtration | 28/5/2024 |
| 8. | Blood physiology: 9.1. Overview of Blood 9.2. Gaseous Exchange 9.3. Blood composition 9.3.1. Plasma 9.3.2. Red Blood Cells 9.3.3. White Blood Cells | 4/6/2024 |

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| 9. | Physiology of The lymphatic and immune system 10.1. Lymph flow 10.1.1, Lymph flow in the lymphatic vessels 10.1.2. Lymph flow in the lymph nodes, 10.2. Function of lymph nodes 10.3. Function of spleen and thymus | 11/6/2024 |
| 10. | Physiology of The Endocrine System: 11,1. Types of Glands 11.2. Function of endocrine system 11.3. Hormones: 11.3.1 Characteristics of Hormones 11.3.2. Functions of hormones | 17/6/2024 |
| 11. | Physiology of female reproductive System 12.1. The functions of the female reproductive system 12.2. Oogenesis 12.3, Hormonal control of ♀ secondary sex characteristic 12,4, Ovarian cycle | 24/6/2024 |
| 12. | Physiology of Male Reproductive System 13.1. Function 13.1.1, Spermatogenesis Formation of sperm 13.1.2. Hormonal factors that stimulate spermatogenesis 13,2, Maturation of sperm in the epididymis 13.3. Storage of sperms | 1/7/2024 |
| 13. | Sens physiology 14.1. Cutaneous sensation 14.2. physiology of vision 14.3. physiology of hearing 14.4. Taste bud physiology 14.5. Smell physiology | 7/7/2024 |
| 14. | Review | 14/7/2024 |

Methods of teaching (theory)

- Lecture, Discussion, Demonstration

Methods of evaluation

- Quizzes
- Assignments
- Written exam

Degree percentages/

Mid term - Activities

40

Final exam

70

Signature Date.....

Head of department signature Faculty Dean approval

