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**Department of Physiotherapy**

 **Hawler technical health College**

**Erbil Polytechnic University**

**Subject:** **Neurological Physiotherapy.**

**Course Book – (Year 3)**

**Lecturer's name: Azad Hasan Kheder**

**Academic Year: 2022/2023**

**Course Book**

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| **1. Course name** | **Neurological Rehabilitations** |
| **2. Lecturer in charge** | **Dr. Azad Hasan Kheder****M.B.Ch.B. M.Sc. F.K.B.M.S.** |
| **3. Department/ College** | **Physiotherapy** |
| **4. Contact** | **e-mail: dr.azad.hasan@epu.edu.iq****Tel: 07507159778** |
| **5. Time (in hours) per week**  | **Theory: 1** **Practical: 3**  |
| **6. Office hours** | **Availability of the lecturer to the student during the week** |
| **7. Course code** |  |
| **8. Teacher's academic profile**  | **Lecrurer M.B.Ch.B. M.Sc. F.K.B.M.S.** |
| **9. Keywords** |  |
| **10. Course overview:**  As neurorehabilitation evolves, it is more challenging for clinicians to maintain state-of-the-art care of their patients. This course will use plenary lectures and smaller breakout sessions, including interactive casebased workshops, to update the audience on medical, psychological, physical, and cognitive approaches to neurorehabilitation. Based on their participation in the course, participants will be able to expand their clinical knowledge and enhance those skills needed to maximize the physical, cognitive, and social function of patients with traumatic brain injury, spinal cord injury, stroke, and neurodegenerative disease. Participants will learn of state-of-the-art research and its application to clinical practice in such diverse topics as exercise, pharmacology, technology, wellness, integrative medicine, patient motivation, and caregiver assistance.  |
| **11. Course objective:*** **On completion of this course the student will be able to:**

• Summarize the research evidence base for neurorehabilitation practice. • Integrate state-of-the-art evidence-based approaches to neurorehabilitation into their care of patients. • Evaluate advances in research that will lead to future approaches to neurorehabilitation. |
| **12. Student's obligation**The Attendance and completion of all tests, exams, assignments, reports , practical sessions …etc  |
| **13. Forms of teaching****Theory:** lecture, group discussion, pair work, group work, case-based learning **Laboratory practice**: Lecture, group discussion, skill demonstration, group work, team teaching, self-training. |
| **15. Student learning outcome:*** **On completion of this course the student will be able to:**
* Mention the basic principles and procedures relating to some of the therapeutic exercise modalities.
* Explain The physiological and therapeutic effects of the different therapeutic exercise modalities
* Define and enumerate indications, contraindications, dangers and precautions including techniques of applications
* Explain advantages and disadvantages of the different modalities.
* Select the proper type of exercise depending on patients diagnosis
* Design the appropriate way of application for each modality
* Apply different types of therapeutic exercises on him colleague
* Demonstrate and acquire meaningful communications for instruction to the patient and ensure his/her comfort throughout the treatment
* Know the importance and clinical benefits of test and measurements
* Know how to prepare environment, equipment and patient for evaluation procedures.
* Know the difference between muscle weakness and contracture.
* Know the difference between gross and individual muscle testing.
* Classify and identify different grades of muscle evaluation.
* Apply accurate positions, grasp, stabilization and fixation.

Recognize and be able to carry out basic techniques of muscle testing and take the proper precautions. |
| **16. Course Reading List and References‌:**▪ **Key references**: ▪ Magazines and review (internet): |
| **17. The Topics:** |
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|  Print all **1.**     **Course calendar (Theoretical Part):**

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| **Week** | **Outline** | **No. of Hours** |
| **1** | Clinical features and management of Congenital childhood disorders. | **1** |
| **2** | Clinical features and management of: Diseases of the spinal cord, Craniocerebral junction anomalies, Syringomyelia, Cervical and lumbar disc lesions, Tumors, and Spinal archnoiditis | **3** |
| **3** | Clinical features and management of:Demyelinating diseases, Guillain – bare syndrome, Acute disseminated encephalomyelitis, Transverse myelitis, andMultiple sclerosis | **4** |
| **4** | Clinical features and management of : Degenerative disorders,Parkinson disease, and Dementia | **2** |
| **5** | Clinical features and management of: Infections, Pyogenic meningitis sequelae, Tuberculous infection of CNS, Poliomyelitis, and Tabes dorsalis | **3** |
| **6** | **1st Term examination** | **2** |
| **7** | Clinical features and management of: Disease of the muscle,Myopathies, Muscular dystrophy, and Spinal muscular atrophy | **2** |
| **8** | Clinical features and management of: Peripheral nerve disorder,Entrapment neuropathies, and Peripheral neuropathies | **2** |
| **9** | Clinical features and management of :Spinal cord lesions,Paraplegia, Quadriplegia, and Neurogenic bladder | **2** |
| **10** | Clinical features and management of Motor neuron disease | **1** |
| **11** | Clinical features and management of Miscellaneous:Myasthenia gravis, Alzheimer disease, and Disorders of ANS                                                                           | **3** |
| **12**  | Clinical features and management of Miscellaneous:Migraine , Epilepsy, and Intracranial tumours                                                                                     | **3** |
| **13** | **2nd Term examination** | **2** |
| **14**  | **Total** | **30** |

**2.**     **Course Calandar / Practical Part:**

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| **Week** | **Outline** | **Number of Hours** |
| **Clinical Practice** |
| **1.** | Physiotherapy management of                                               Syringomyelia, Cervical and lumbar disc lesions, and Tumors | **4** |
|   **2.** | Physiotherapy management of                                                        Cerebellar lesion and Brain tumors | **2** |
| **3.** | Physiotherapy management of  Guillain – bare syndrome | **2** |
| **4.** | Physiotherapy management of Transverse myelitis | **2** |
|  **5.** | Physiotherapy management of Multiple sclerosis | **4** |
|  **6.** | Physiotherapy management of Parkinsonism | **2** |
|  **7.** | Physiotherapy management of Dementia | **2** |
|  **8.** | Physiotherapy management of Poliomyelitis | **2** |
|  **9** | Physiotherapy management of Tabes dorsalis | **2** |
|  **10**  | Physiotherapy management of Myopathies, Muscular dystrophy, and Spinal muscular atrophy | **4** |
|  **11.** | **1st Term examination** | **2** |
|  **12.** | Physiotherapy management of  Entrapment neuropathies andPeripheral neuropathies.                      | **4** |
|  **13.**  | Physiotherapy management of Monoplegia, paraplegia, and quadriplegia | **4** |
|  **14.** | Physiotherapy management of Neurogenic bladder | **2** |
|  **15.** | Physiotherapy management of Myasthenia gravis | **2** |
|  **16.** | Physiotherapy management of Motor neuron disease | **4** |
|  **17.**  | Physiotherapy management of Alzheimer disease | **2** |
|  **18.**  | Physiotherapy management of 7th cranial nerve palsy | **4** |
|  **19.**  | Physiotherapy management of Trigeminal neuralgia | **2** |
|  **20.**  | Physiotherapy management of Brachial neuralgia | **2** |
|  **21.**  | Physiotherapy management of Low back pain syndrome | **4** |
|  **22.**  | **2nd Term examination** | **2** |
| **Total** | **60** |

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| **18. Practical Topics (If there is any)** |
| 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  |
| **19. Examinations:*****1. Compositional:*** In this type of exam the questions usually starts with Explain how, What are the reasons for…?, Why…?, How….?With their typical answersExamples should be provided***2.******True or false type of exams:***In this type of exam a short sentence about a specific subject will be provided, and then students will comment on the trueness or falseness of this particular sentence. Examples should be provided***3. Multiple choices:***In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase. Examples should be provided. |
| **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 پێداچوونه‌وه‌ی هاوه‌ڵ** 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).*ئه‌م کۆرسبووکه‌ ده‌بێت له‌لایه‌ن هاوه‌ڵێکی ئه‌کادیمیه‌وه‌ سه‌یر بکرێت و ناوه‌ڕۆکی بابه‌ته‌کانی کۆرسه‌که‌ په‌سه‌ند بکات و جه‌ند ووشه‌یه‌ک بنووسێت له‌سه‌ر شیاوی ناوه‌ڕۆکی کۆرسه‌که و واژووی له‌سه‌ر بکات.هاوه‌ڵ ئه‌و که‌سه‌یه‌ که‌ زانیاری هه‌بێت له‌سه‌ر کۆرسه‌که‌ و ده‌بیت پله‌ی زانستی له‌ مامۆستا که‌متر نه‌بێت.‌‌  |

