**ORTHOTICS AND REHABILITATION**

| Course Name | Code | Term | Theory (hours/week) | Application (hours/week) | Laboratory (hours/week) | | ECTS |
|---|---|---|---|---|---|---|---|
| **Orthotics and Rehabilitation** | **FTR 304** | **3.year/ 2.term Spring** | 3 | - | - | | 2 |

| | |
|---|---|
| Prequisites | |
| Course language | Turkish |
| Course type | Compulsory |
| Learning and teaching strategies | Theory,Application |
| Instructor (s) | |
| Course objective(Aim of course) | To acquaint physiotherapy students with orthoses, their indications, applications, necessary modifications and possible complications. To teach physiotherapy students to plan and to apply the appropriate treatment programs with the aim of increasing the effectiveness of orthoses and rehabilitation and to develop patient based problem solving skills. |
| Learning outcomes | 1. Identifies the necessity of an orthosis for a patient and chooses the appropriate orthosis, <br> 2. Plans and applies the appropriate assessment before and after orthotic use , <br> 3. Checks the fit of the orthoses and observes the necessity of modification, carries out alignment adjustments <br> 4. Gains an awareness regarding orthotic use and possible complications, <br> 5. Plans and applies the appropriate treatment program to increase the effectiveness of the orthoses and rehabilitation program, <br> 6. Gives the necessary recommendations to patients using orthoses, <br> 7. Appreciates the importance of systematic and long term follow up, <br> 8. Comprehends the importance of being up to date with advanced technology and development in the field of orthotic rehabilitation. |
| References | 1. S Fatma Uygur Ayak Deformite ve Ortezleri HÜ Fizik Tedavi ve Rehabilitasyon Yüksekokulu Yayınları: 14 Ankara 1992. <br> 2. GK Rose Orthotics: Principles & Practice 1986. <br> 3. American Academy of Orthotic Surgeons Atlas of Orthotics: Biomechanical Principles and Application 4th ed. 2009. <br> 4. Lusardi MM, Nielsen CC. Orhotics and Prosthetics in Rehabilitation 2nd .ed. , Elsevier Inc., St. Louis, Missouri, USA, 2007. <br> 5. Hunter JM, Schneider LH, Mackin EJ, Callahan AD Rehabilitation of the Hand, Surgery and Therapy 5th Ed., Mosby Company, Toronto, 2011. <br> 6. Fess EE, Philips CA. Hand Splinting 3rd ed., Mosby Company, Toronto, 1996. |

| | 7. Stanley BG, Tribuzi SM. Concepts in Hand Rehabilitation Davis Company, Philadelphia, 1992. |

**Course outline weekly:**

| Weeks | Topics |
|---|---|
| 1. Week | Introduction to orthoses, aim of orthotic usage, examples of orthoses |
| 2. Week | Pathomechanics of the foot and common deformities ( pesplanus, hallux valgus, drop foot/equinus, club foot, leg length discrepancy, fractures? etc.) |
| 3. Week | Main principles of the foot orthosis, Appropriate footwear, knowledge of the material used for orthoses |
| 4. Week | Common pathologies of foot and ankle, orthotic applications, uses, control and treatment approaches, |
| 5. Week | Orthotic approaches in mechanical and traumatic pathologies of the knee, |
| 6. Week | The clinical features of congenital hip dislocation and orthotic approaches |
| 7. Week | Indications for above knee orthoses, common orthotic applications and solving encountered problems, |
| 8. Week | Pathologies of the spinal region, classification and clinical properties, principles of spinal orthoses |
| 9. Week | Orthoses for spinal deformities (scoliosis, kyphosis, torticollis, increase and decrease of lumbar lordosis? etc.) |
| 10. Week | Orthoses for spinal pathologies (fracture of vertebrae, intermedullar tumors, traumatic injuries and instabilities?etc.) |
| 11. Week | Fundamental concepts in hand splinting, principles and methods |
| 12. Week | Common hand pathologies and orthotic approaches |
| 13. Week | Elbow pathologies and orthotic treatment |
| 14. Week | Shoulder patholgies and orthotic treatment |
| 15. Week | FINAL EXAM |

**ECTS (Student Work Load Table)**

| Activities | Number | Duration | Total Work Load |
|---|---|---|---|
| Course Duration (X14 ) | 14 | 3 | 42 |
| Laboratory | | | |
| Practice | | | |
| Field Study | | | |
| Study Time Of Outside Of Class (Pre-Study, Practice, Etc.) | | | |
| Presentations (Video shoot/Poster preparation/Oral presentation, Etc.) | | | |
| Seminars | | | |
| Project | | | |
| Case study | | | |
| Role playing, Dramatization | | | |
| Writing articles, Critique | | | |
| Time To Prepare For Midterm Exam | 1 | 3 | 3 |
| Final Exam Preparation Time | 1 | 5 | 5 |
| **Total Work Load ( hour) / 25(s)** | 50 / 25 | | |
| **ECTS** | 2 | | |

**Evaluation System**

| Mid-Term Studies | Number | Contribution |
|---|---|---|
| Midterm exams | 1 | %100 |
| Quiz | | |
| Laboratory | | |
| Practice | | |
| Field Study | | |
| Course Internship (If There Is) | | |
| Homework's | | |
| Presentation and Seminar | | |
| Project | | |
| Other evaluation methods | | |
| **Total Time To Activities For Midterm** | | 100 |
| **Final works** | | |
| Final | 1 | %100 |
| Homework | | |
| Practice | | |
| Laboratory | | |
| **Total Time To Activities For Midterm** | | 100 |
| Contribution Of Midterm Studies On Grades | | %50 |
| Contribution Of Final Exam On Grades | | %50 |
| **Total** | | 100 |

**The relationship between learning outcomes and the program qualifications of the courses**

| Program Qualifications | | | Learning outcomes | | | | |
|---|---|---|---|---|---|---|---|
| | L.O.1 | L.O.2 | L.O.3 | L.O.4 | L.O.5 | L.O.6 | L.O.7 |
| 1. Sufficient background in basic- clinical medical sciences and physical therapy and rehabilitation discipline; ability to use theoretical and practical skills and knowledge in these fields with analytical thinking | 5 | | | 5 | | 5 | 5 |
| 2. Ability to determine, define, formulate and solve the factors that affect health; ability to choose and apply evidence based techniques and new methods for this aim. | | 5 | 5 | | 5 | | |
| 3. Ability to choose and use modern equipments, techniques and modalities for physiotherapy and rehabilitation practices; effectively use the informatique technologies. | | | | | | | |
| 4. Ability to design multidisciplinary research, keep records, collect appropriate data, analysis and interpret results. | | | | | | | |
| 5. Ability to attain new knowledge, make literature reviews, use medical databases and sources of information devoted to medical- health sciences | | | | | | | |
| 6. To work autonomously and effectively in health team and self confidence to take responsibility | | | | | | | |
| 7. To internalize characteristically development, literate and lifelong learning; quality development,to contribute education and promotion programs in field,to internationalize their professional behavior. | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8. To have professional deontology and ethical awareness | | | | | | | |

**Contribution to the level of proficiency: 1.   Lowest, 2.  Low / Medium, 3. Average, 4. High, 5. Excellent**