SPORTS MEDICINE & REHABILITATION

Course Code PE-324 **Credit Hours** 3 (2-1)

Course Description:

This course explores the fundamental concepts of sports medicine and rehabilitation, focusing on injury prevention, diagnosis, treatment, and rehabilitation techniques for athletes. Students will gain knowledge of medical, physical, and therapeutic methods to manage sports injuries and promote a safe return to play.

Course Learning Outcomes (CLOs):

By the end of this course, students will be able to:

1. Identify common sports injuries and their mechanisms.
2. Understand the physiological responses to injury and healing processes.
3. Apply first aid and injury management techniques for immediate care.
4. Design rehabilitation plans tailored to individual athletes.
5. Evaluate injury prevention strategies and educate athletes on safe practices.

Course Content:

Week 1-2

Introduction to Sports Medicine

- History and Scope of Sports Medicine
- Roles of a Sports Medicine Team
- Common Terms in Sports Medicine
- Overview of Sports Injury Classifications

Week 3-4

Injury Mechanisms and Types

- Acute vs. Chronic Injuries
- Common Injuries in Different Sports (e.g., sprains, strains, fractures)
- Mechanisms of Soft Tissue and Bone Injuries
- **Practical**: Identification of Injury Types Through Case Studies

Week 5-6

Physiological Healing Process

- Phases of Tissue Healing: Inflammatory, Proliferation, Remodeling
- Factors Affecting Healing
- **Practical**: Observing and Analyzing Stages of Recovery Using Clinical Cases

Week 7-8

First Aid in Sports

- Immediate Care for Sports Injuries: RICE Protocol
- Management of Open Wounds, Head Injuries, and Concussions
- **Practical**: First Aid Scenarios and Simulation

Week 9-10

Therapeutic Interventions

- Modalities for Recovery: Heat, Ice, Compression, and Electrotherapy
- Physiotherapy Techniques: Massage, Ultrasound, and Taping

- **Practical**: Application of Taping Techniques for Injury Prevention

Week 11-12

Rehabilitation and Recovery

- Principles of Rehabilitation: Phases, Objectives, and Goals
- Designing a Rehabilitation Plan Based on Specific Injuries
- Functional Tests to Assess Recovery Progress
- **Practical**: Developing and Implementing Rehabilitation Protocols

Week 13-14

Injury Prevention Strategies

- Importance of Warm-Ups, Stretching, and Strengthening Programs
- Biomechanics and Equipment Use for Injury Prevention
- **Practical**: Creating Injury Prevention Routines for Sports Teams

Week 15-16

Evaluation and Practical Demonstrations

- Case Study Review: Injury Analysis and Rehabilitation
- Practical Exam: Demonstration of Key Skills and Techniques
- Theory Examination

Teaching and Learning Methods:

- **Lectures**: Foundational knowledge supplemented by real-world examples
- **Workshops**: Skill development in first aid, taping, and therapeutic methods
- **Group Discussions**: Collaborative learning through injury cases
- **Practical Training**: Hands-on application of injury management and rehabilitation techniques
- **Video Analysis**: Evaluating sports-specific injury mechanisms

Recommended Books (APA Style):

1. Brukner, P., & Khan, K. (2019). *Brukner & Khan's Clinical Sports Medicine* (5th ed.). Sydney, Australia: McGraw-Hill Education.
2. Prentice, W. E. (2020). *Principles of athletic training: A guide to evidence-based clinical practice* (17th ed.). McGraw-Hill Education.
3. Kuipers, R. S., & Baker, R. (2018). *Sports injury prevention and rehabilitation: Integrating medicine and science for performance solutions*. Routledge.
4. Quain, D. J., & Helmig, M. A. (2021). *Functional rehabilitation in sports medicine*. Wolters Kluwer.
5. Norris, C. M. (2019). *Managing sports injuries: A guide for students and clinicians* (5th ed.). Human Kinetics.