

SYLLABUS OF GENERIC ELECTIVE PAPERS (GE)
SEM- 4 (GE-8)

INTRODUCTION TO INJURY PREVENTION AND REHABILITATION IN SPORTS

Sl. No.	Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-Requisite of the Course (if any)
			Lecture	Tutorial	Practical/Practice		
8.	SEM- 4 (GE-8) INTRODUCTION TO INJURY PREVENTION AND REHABILITATION IN SPORTS	04	3	0	1	XII Pass	NIL

Learning objective:

The objective of this course is to provide the understanding, skill, and practices related to injury prevention and rehabilitation in athletics along with enough scope for creativity/Innovations.

Learning outcomes:

1. Understand the concept of injury prevention and rehabilitation in athletes.
2. Apply the principles of rehabilitation for fast and better recovery in a collaborative Work of athletes, coaches, and medical professionals.
3. Identify and classify the particular injury to deal with or suggest apply Suitable exercise and other related aids.
4. Practice related modalities (e.g., heat therapy, cold therapy, electrical stimulation) Used in rehabilitation.
5. Apply functional training and return-to-play criteria

SYLLABUS

No. of Credits: 04 (Lecture-03, Practical-1)

Theory: 45 hours, Practical: 30 hours.

Unit-1: INTRODUCTION TO INJURY PREVENTION AND REHABILITATION (11 hrs. Lectures)

- 1.1 Introduction and definition of injury
- 1.2 Importance of injury prevention and rehabilitation in sports
- 1.3 Principles of injury prevention and rehabilitation

Unit-II: COMMON SPORTS INJURIES AND FIRST AID

(11 hrs. lectures)

- 2.1 Identification and classification of common sports injuries
- 2.2 Causes and risk factors associated with sports injuries
- 2.3 Introduction to First Aid

Unit-III: INJURY PREVENTION STRATEGIES

(11 hrs. lectures)

- 3.1 Warm-up and cool-down protocols
- 3.2 Proper technique and form to minimize injury risk
- 3.3 Nutritional considerations for injury prevention

Unit-IV: REHABILITATION AND PSYCHOSOCIAL ASPECTS OF INJURY PREVENTION

(12 hrs. lectures)

4.1 Overview and Goals of the rehabilitation process

4.2 Modalities used in rehabilitation (ANY TWO: heat therapy, cold therapy, electrical stimulation)

4.3 Psychological impact of sports injuries

4.4 Injury prevention and rehabilitation education for athletes, coaches, and parents

PRACTICAL

(30 Hours)

1. Preparation of first aid box.

2. Application of PRICE.

3. Preparation of warming up and cooling down exercises to prevent injury in a general context.

Suggested Readings:

- Brukner, P., & Khan, K. (2017). Clinical sports medicine. McGraw-Hill Education.
- Sherry, M. A., & Best, T. M. (2004) A comparison of 2 rehabilitation programs in the treatment of acute hamstring strains. Journal of Orthopedic & Sports Physical Therapy, 34(3), 116-125.
- Brukner, P., & Khan, K. (2017). Clinical sports medicine. McGraw-Hill Education.
- Sherry, M. A., & Best, T. M. (2004). A comparison of 2 rehabilitation programs in the treatment of acute hamstring strains. Journal of Orthopedic & Sports Physical Therapy, 34(3), 116-125.
- Myer, G. D., Faigenbaum, A. D., Chu, D. A., Falkel, J., & Ford, K. R. (2011). Integrative training for children and adolescents: Techniques and practices for reducing sports-related injuries and enhancing athletic performance. The Physician and Sports Medicine, 39(1), 74-84.
- Bahr, R., & Holme, I. (2003). Risk factors for sports injuries—a methodological approach. British Journal of Sports Medicine, 37(5), 384-392.
- Lephart, S. M., Ferris, C. M., Riemann, B. L., & Myers, J. B. (2002). Gender differences in strength and lower extremity kinematics during landing. Clinical Orthopedics and Related Research, 401, 162-169.
- Myer, G. D., Ford, K. R., Brent, J. L., & Hewett, T. E. (2006). The effects of plyometric versus dynamic stabilization and balance training on lower extremity biomechanics. The American Journal of Sports Medicine, 34(3), 445-455.
- Petersen, J., Thorborg, K., Nielsen, M. B., Budtz-Jørgensen, E., & Hölmich, P. (2011). Preventive effect of eccentric training on acute hamstring injuries in men's soccer: a cluster-randomized controlled trial. The American Journal of Sports Medicine, 39(11), 2296-2303.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.