

POOL OF COURSES
SYLLABUS OF DISCIPLINE-SPECIFIC ELECTIVE PAPERS (DSE)
SEMESTER-VIII
B.A.DSE (PE)-4.1
INTRODUCTION TO KINESIOLOGY
DSE

Sl. No.	Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-Requisite of the Course (if any)
			Lecture	Tutorial	Practical/ Practice		
1	B.A.DSE (PE)-4.1 INTRODUCTION TO KINESIOLOGY	04	3	0	1	XII Pass	NIL

Learning Objective: The objective of this course is to provide an understanding and practice to the learners about Kinesiology and its application in sports and develop the foundation to learn performance analysis.

Learning Outcomes:

1. Students will be able to impart knowledge about the various movements of the body affecting performance in sports and a basic knowledge of various Sports Injuries and their management.
2. Students will learn the science of movement for better sports performance and the basic knowledge of the various injuries and their management.
3. Such core knowledge and skill help to create a strong foundation to engage human subjects of all ages, sexes, and abilities.

SYLLABUS

CREDITS: 4 [Theory-3, Practical-1]

Theory-45 hours

Practical-30 hours

UNIT-I: INTRODUCTION TO KINESIOLOGY

(12 Hours)

- 1.1 Meaning and Definition of Kinesiology
- 1.2 Historical Perspectives of Kinesiology
- 1.3 Importance of Kinesiology in Sports Sciences
- 1.4 Aim and Objectives of Kinesiology in Sports Sciences
- 1.5 Scope of Kinesiology
- 1.6 Modern Technological Enhancement in Kinesiological Analysis and Methods.

UNIT-II: UNDERSTANDING OF JOINTS

(10 Hours)

- 2.1 Classification of joints and muscles
- 2.2 Major characteristics of joints - Shoulder, Elbow, Wrist related to sports
- 2.3 Major characteristics of joints - Hip, Knee, and Ankle related to sports.

UNIT-III: UNDERSTANDING MUSCLES

(10 Hours)

- 3.1 Types of Muscle Contractions, Angle of Pull
- 3.2 Origin and insertion of major muscles in Upper Extremity:
- 3.3 Origin and insertion of major muscles in Lower Extremity

UNIT-IV: FUNDAMENTAL MOVEMENTS

(13 Hours)

- 4.1 Fundamental Movements- Flexion, Extension, Abduction, Adduction, and Rotation.
- 4.2 Muscular analysis of fundamental movements – walking, running, jumping, throwing, catching, pulling, pushing, striking, hanging, and fundamental starting position.
- 4.3 All and none law and reciprocal Innervations.
- 4.4 Axis and Planes of Motion.

4.5 Gravity- Definition, line of gravity, Centre of gravity.

4.6 Equilibrium and types of equilibrium.

PART-B: PRACTICAL

(30 HOURS)

1. Demonstration of planes & axes of a given movement.
2. Determination of the location of muscles at various joints: Shoulder girdle, Shoulder joints, Elbow joint.
3. Determination of the location of muscles at various joints: Hip joint, Knee joint, Ankle joint.
4. Prepare a presentation on any topic of the theory syllabus.

Suggested Readings:

1. Blazeovich, A.J. (2017). Sports Biomechanics. Bloomsbury Sports Publishers.
2. Colby, L.A and C. Kisner (2002). Therapeutic Exercise. F.A. Davis Co. Publishers, Philadelphia, Pennsylvania, USA.
3. Dillon, G. (2017). Principles of Exercise Therapy. Syrawood Publishing House, ISBN: 978168286-489-0, New York, NY100017, USA.
4. Souza, P.D. (2016). Sports Biomechanics and Medicine. Callisto Publishers, New York, USA.
5. Watkins, J. (2014) Fundamental Biomechanics of Sports and Exercise. Routledge Publishers, USA.

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