

**Wollo University
College of natural science
Department of sport science**

Course title /code: / Kinesiology /SpSc 2083/

Course Weight: 3 cr.hr/5 ECTS/

Academic Year II Semester II

Mode of Delivery:Block (From Week 1- 4)

Course Description:

The basic of athletic performance and physical education is human movement. The science that investigates and analyses human movement is kinesiology. Since sport professionals and physical educators deal with movement, kinesiology is an indispensable course that equips students with fundamental concepts of kinesiology and its application to enhancing athletic performance, application of principles and laws that govern human movement and anatomical and physical fundamentals of human motion.

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

- Describe the fundamental concepts of kinesiology and its role in the field of sports or and other aspects of life;
- Recognize the nature and types of human movement;
- Recognize the mechanical factors and laws that govern human movement;
- Identify the fundamental principles and laws of human motion to enhance movement performance;
- Apply the analysis of human movements in the daily activity and common sports.

Contents

Chapter I:Introduction to kinesiology

Chapter II:Biological and Structural Bases

Chapter III:Forms of motion

Chapter IV:Kinetics

Chapter V:Kinematics

Chapter VI: Temperature, Heat and Thermodynamics

Chapter VII:Fluid Mechanics

Chapter VIII:Biomechanical analysis of sport technique

Assessment Techniques

- o **Test 1 101%**
- o **Individual Assignment 10%**
- o **Quiz 5%**
- o **Test 2 10%**
- o **Group Assignment 15%**
- o **Final Exam 50%**

Reference materials:

1. Cooper and Glassow, Kinesiology 1972.
2. BezabihWoldie (PHD) Kinesiology for HPE students 1996.
3. Nany Hamilton, Kathryn Hutgens, Kinesiology – Scientific Basic of Human Motion, 2002.
4. Clayne R. Jensen. (1984) Applied Kinesiology and Biomechanics