



Understanding Human Movement
Home Study Course

Course Outline

Understanding Human Movement Home Study Course

Key Features

This is a home study course about human movement. The human body is a complicated machine. With several parts that directly and indirectly affecting one another. Learn about the fundamental parts of the muscular, skeletal and neuromuscular systems and how they synergistically affect one another. This foundation course will teach you the foundation science, and prepare you to understand how to perform a movement assessment. This dynamic course is part of **Advanced Training Specialist (ATS)** certification created by PTCS.

Course Overview

The course begins with introducing skeletal anatomy and functional anatomy, painting a 'picture' about the components of the skeletal system. The next section simplifies biomechanics and how biomechanically we move. Illustrations and extensive discussion provide a deeper understanding on the functional anatomy required to perform daily and sport specific movement. Next, evidenced based research is introduced to provide insight on the body's 'weak links.' Lastly, the various systems of the body and their interaction with one another to produce movement are extensively discussed.

Course Materials:

This package with online test includes a 149-page manual and 25-page study workbook in PDF format. Included within the course and study workbook are two practice examinations testing the reader's comprehension of the material. In addition, you have access to over 50 videos explaining the course material in more detail.

Note: This course package is made available for immediate download after purchase. All materials for this course are received electronically.

Course Objectives:

- Learn the importance of understanding anatomy, functional anatomy as it relates to how human movement occurs.
- Gain a deeper understanding of the biomechanical analysis of every day movements as well as common sport movements.
- Identify the areas that have been shown both in science and evidenced based research that break down and are injured called "**the weak links**" of the human kinematic chain.
- Learn common functional assessment tests of each body part supported with research.
- Understand the fundamentals of biomechanics, biomechanics of movement, biomechanical principles, biomechanics of various structures & tissues including; connective tissue, tendons and bones.
- Gain a deeper understanding on how all systems of the body interact and affect one another.

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Section 1: Skeletal anatomy

Section 2: Functional biomechanics and biomechanics of human movement

Section 3: Human Movement terminology

Section 4: Functional anatomy to perform daily and sport specific movements

Section 5: Understanding the weak links in the human kinetic chain

Section 6: Integration of body systems

Section 7: Pharmacology, side effects and effects on exercise