

An Introduction to Mechanics of Human Movement

Editor: James Watkins

Bibliographic Data: ISBN: 978-1-4716-5044-4; 2012 by Mandinam Press, Sketty, Swansea, UK, 154 pages, paperback, \$23.49.

Subjects: Newton's Law, Mechanics, Human Movement.

Description: *An Introduction to Mechanics of Human Movement* is the study of the internal and external forces which act on the body and the effects of these forces on the movement of the body.

Purpose: The purpose of the book is to explain the fundamental mechanical concepts and principles which underlie the ability to analyse movement mechanically.

Audience: The book is designed primarily as a mechanics course text for undergraduate students of sport and exercise science, physical education, athletic training, and physiotherapy. The book will also be of interest to teachers of mechanics in schools.

Features: The book is composed of 3 sections and 33 chapters, includes several line drawings, and has an appendix at the end. Section I is "Introduction" including main topics about "Mechanics of human movement", "Forms of motion", and "Units". Section II is "Linear Motion" and includes 15 different topics each about this area of mechanics. Section III is "Angular Motion" and includes also 15 different topics each about this area of mechanics.

Assessment: The content of the book is concerned largely with the development of an understanding of the effects of Newton's laws of motion with regard to linear and angular motion. All of the fundamental mechanical concepts are explained from first principles, and many well-illustrated examples from a range of physical activities are given in order to show their practical relevance. Unlike other texts in the field, no previous knowledge of mechanics is assumed as a prerequisite to the use of the book.

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