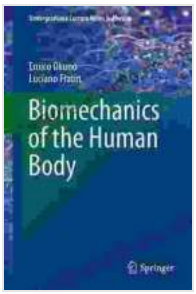
# Biomechanics of the Human Body: Undergraduate Lecture Notes in Physics

**Biomechanics of the Human Body** is a comprehensive textbook that provides students with a thorough understanding of the mechanical principles that govern human movement. The book covers a wide range of topics, including kinematics, kinetics, statics, and dynamics, and is written in a clear and concise style.




## Biomechanics of the Human Body (Undergraduate Lecture Notes in Physics) by Вильгельм Гауф

★★★★★ 5 out of 5

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|---|---|
| Language | : English |
| File size | : 3862 KB |
| Text-to-Speech | : Enabled |
| Screen Reader | : Supported |
| Enhanced typesetting | : Enabled |
| Word Wise | : Enabled |
| Print length | : 280 pages |



The book is divided into five parts. The first part introduces the basic concepts of biomechanics, including the laws of motion, energy, and momentum. The second part covers kinematics, which is the study of the motion of objects. The third part covers kinetics, which is the study of the forces that act on objects. The fourth part covers statics, which is the study of equilibrium. The fifth part covers dynamics, which is the study of the motion of objects under the influence of forces.

**Biomechanics of the Human Body** is a valuable resource for students who are interested in learning about the mechanical principles that govern human movement. The book is also a useful reference for professionals who work in the field of biomechanics.

### Table of Contents



### Part 1: to Biomechanics

The first part of the book introduces the basic concepts of biomechanics, including the laws of motion, energy, and momentum. These concepts are essential for understanding the mechanical principles that govern human movement.

### Part 2: Kinematics

The second part of the book covers kinematics, which is the study of the motion of objects. Kinematics provides the tools that are necessary to describe the motion of the human body, including the position, velocity, and acceleration of body segments.

### Part 3: Kinetics

The third part of the book covers kinetics, which is the study of the forces that act on objects. Kinetics provides the tools that are necessary to

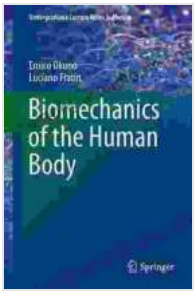
analyze the forces that act on the human body, including the forces of gravity, friction, and muscle contraction.

### Part 4: Statics

The fourth part of the book covers statics, which is the study of equilibrium. Statics provides the tools that are necessary to analyze the forces that act on the human body when it is in equilibrium, such as when standing or sitting.

### Part 5: Dynamics

The fifth part of the book covers dynamics, which is the study of the motion of objects under the influence of forces. Dynamics

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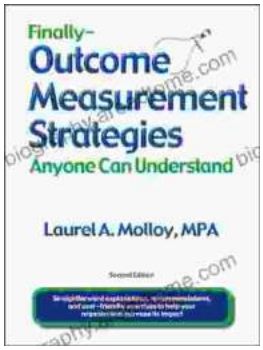


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