DESCRIPTION

A thoroughly updated and extended new edition of this well-regarded introduction to the basic concepts of biological physics for students in the health and life sciences.

Designed to provide a solid foundation in physics for students following health science courses, the text is divided into six sections: Mechanics, Solids and Fluids, Thermodynamics, Electricity and DC Circuits, Optics, and Radiation and Health. Filled with illustrative examples, *Introduction to Biological Physics for the Health and Life Sciences, Second Edition* features a wealth of concepts, diagrams, ideas and challenges, carefully selected to reference the biomedical sciences. Resources within the text include interspersed problems, objectives to guide learning, and descriptions of key concepts and equations, as well as further practice problems.

NEW CHAPTERS INCLUDE:

- Optical Instruments
- Advanced Geometric Optics
- Thermodynamic Processes
- Heat Engines and Entropy
- Thermodynamic Potentials
This comprehensive text offers an important resource for health and life science majors with little background in mathematics or physics. It is also an excellent reference for anyone wishing to gain a broad background in the subject.

Topics covered include:

- Kinematics
- Force and Newton’s Laws of Motion Energy
- Waves Sound and Hearing
- Elasticity
- Fluid Dynamics Temperature and the Zeroth Law
- Ideal Gases Phase and Temperature Change
- Water Vapour
- Thermodynamics and the Body Static Electricity
- Electric Force and Field
- Capacitance
- Direct Currents and DC Circuits
- The Eye and Vision Optical Instruments
- Atoms and Atomic Physics
- The Nucleus and Nuclear Physics
- Ionising Radiation
- Medical imaging
- Magnetism and MRI

Instructor’s support material available through companion website, www.wiley.com/go/biological_physics
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RELATED RESOURCES

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