



Physics for Scientists and Engineers

Tenth Edition, ©2019
Raymond A. Serway, John W. Jewett Jr.
9781337553469

Taking an integrative approach, market-leading PHYSICS FOR SCIENTISTS AND ENGINEERS, Tenth Edition, seamlessly matches curated content to the learning environment for which it was intended--from in-class group problem solving to online homework that utilizes targeted feedback and tutorials. More student friendly than ever, the text includes new context-rich exercises, Think-Pair-Share problems, and sound educational pedagogy. The unified art program and detailed worked examples compliment the concise language and meticulous instruction for which Raymond A. Serway and John W. Jewett Jr. are known. In addition, WebAssign--the world's easiest to use homework system--equips you with the definitive solution to your homework and assessment needs to maximize your course success.

Table of Contents

PART I: MECHANICS

1. Physics and Measurement
2. Motion in One Dimension
3. Vectors
4. Motion in Two Dimensions
5. The Laws of Motion
6. Circular Motion and Other Applications of Newton's Laws
7. Energy of a System
8. Conservation of Energy
9. Linear Momentum and Collisions
10. Rotation of a Rigid Object About a Fixed Axis
11. Angular Momentum
12. Static Equilibrium and Elasticity
13. Universal Gravitation
14. Fluid Mechanics

PART II: OSCILLATIONS AND MECHANICAL WAVES

15. Oscillatory Motion
16. Wave Motion
17. Superposition and Standing Waves

PART III: THERMODYNAMICS

18. Temperature
19. Heat and the First Law of Thermodynamics
20. The Kinetic Theory of Gases
21. Heat Engines, Entropy, and the Second Law of Thermodynamics

APPENDICES

- A. Tables
- B. Mathematics Review
- C. Periodic Table of the Elements
- D. SI Units

Answers to Quick Quizzes and Odd-Numbered Problems

Index

What's New in this Edition

- **NEW STORYLINE APPROACH.** New chapter opening section that provides a continuous storyline through the whole book where students analyze phenomena seen in everyday life. In many chapters, the storyline involves measurements made with a smartphone, watching YouTube videos, or investigations online.
- **INTEGRATIVE APPROACH.** Seamlessly match curated content to the learning environment it is intended for--from in-class group problem solving to optimized, online homework with targeted feedback.
- **NEW CHAPTER ON "WAVE MOTION."** All the fundamental material on traveling mechanical waves on strings and sound waves through materials is now presented in one chapter.
- **REORGANIZED "ELECTRIC FIELDS."** The material on continuous distribution of charge was integrated into Chapter 23, providing a chapter that is a more gradual introduction for students into the new and challenging topic of electricity.
- **REORGANIZED CHAPTER ON "ELECTRIC POTENTIAL."** Chapter content now includes discussions of all four properties of isolated charged conductors--meaning students learn all the necessary basic material before the discussion of properties of isolated charged conductors.

Technology CENGAGE | WEBASSIGN

WebAssign® combines exceptional physics content with the most powerful online homework solution. WebAssign® engages students with immediate feedback, rich tutorial content, and an interactive, customizable eBook. Teachers have real-time assessment of student performance.