BOOK REVIEW

Book: Essentials of Human Anatomy & Physiology 13th edition
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This article reviews the book Essentials of Human Anatomy & Physiology, which helps medical and allied health students focus on the essentials of human Anatomy and Physiology without getting sidetracked by unnecessary information. It has a 4.6-star rating and 28,117 Views, including 63 Favorites. The book was published by Pearson Publishing, London, in 2022.

The authors are Dr. Elaine N. Marieb, an American Human Anatomist and professor Emeritus of Biology, and Dr. Suzanne M. Keller, an Iowa native science educator.

Dr. Elaine Nicpon Marieb is a human anatomist and the author of many textbooks in the Life Sciences. Some of her famous books are Human Anatomy & Physiology, Essentials of Human Anatomy and Physiology, and Essentials of Human Anatomy & Physiology Lab Manual (3rd Edition). She taught at Springfield College and Holyoke Community College for over 40 years. She supported Florida Gulf Coast University for health care and human service professionals in the local community. In honor of her contributions, the university was home to the Elaine Nicpon Marieb College of Health and Human Services. Her legacy of contributing to science education lives on through the Elaine Nicpon Marieb Foundation. She passed away in 2018 at the age of 82.

Dr. Keller is a member of the Human Anatomy and Physiology Society (HAPS) and the Iowa Academy of Science. Additionally, Dr. Keller has served on multiple advisory boards for various projects at Pearson.

This comprehensive textbook offers the right balance of Anatomy, Physiology, and Clinical coverage and also focuses on the most important topics in the field. There were numerous previous editions from 1991 to 2018. Thoroughly updated with dozens of new figures, photos, current medical recommendations, and terminology information, this edition continues to set the standard for brief, accessible one-semester text.

This text combines short, easy-to-read chapters with accessible figures to understand and provide high-quality content. This edition has been updated with the numbering of the main chapter sections and subsections, new end-of-chapter summary outlines, new art in some end-of-chapter questions, study Tips, and a survey of suggested resources. This text consists of sixteen chapters as follows.

1. The Human Body: An Orientation
2. Basic Chemistry
3. Cells and Tissues
4. Skin and Body Membranes

5. The Skeletal System
6. The Muscular System
7. The Nervous System
8. Special Senses
9. The Endocrine System
10. Blood
11. The Cardiovascular System
12. The Lymphatic System and Body Defenses
13. The Respiratory System
14. The Digestive System and Body Metabolism
15. The Urinary System
16. The Reproductive System

Chapter 1, An Orientation of The Human Body, comprises 5 sections: An Overview of Anatomy and Physiology, Six Levels of Structural Organizations and Eleven Body Organ Systems, Items Required for Maintaining Life, The Language of Anatomy with anatomical terminologies, and Body Functions to maintain Homeostasis. This chapter is proposed to specify the nursing students, public health students, and medical imaging technologists.

Chapter 2 is Basic Chemistry. In this chapter, concepts and compositions of matter, chemical bonds, chemical reactions, and biochemistry are in detail, therefore applicable to pharmacy technicians to assist with dispensing, labeling, and taking inventory of medications.

Chapter 3, Cells and Tissues, illustrates human cell physiology and different tissue anatomy with figures, and the authors are wished-for for medical and allied health students.

Chapter 4 and Chapter 5 describe the structure and functions of the Integumentary System and the homeostasis relationships between it and other human body systems and aims to the Radiologic Technologists.

Chapter 6 is The Muscular System. This chapter highlights the anatomy and physiological functions of three types of muscle, namely skeletal muscle, smooth muscle, and cardiac muscle.

Regarding the Nervous System and Special Senses, the structure and functions of the central nervous system (brain and spinal cord) and the peripheral nervous system, and also the diseases affecting the central nervous system, such as Alzheimer's disease (AD), Parkinson's disease, and Huntington's disease. In addition, the sense organs of vision, hearing, smell, taste, and equilibrium, and the authors tried to support the physical therapy assistants (PTAs).

Chapter 9, The Endocrine System explains the major endocrine organs and the hormones released from these organs and focuses on the medical and nursing students.

Chapter 10, Blood This chapter outlines the compositions and functions of blood, hemostasis, blood groups, and transfusions, thus being advantageous to phlebotomy technicians at medical laboratories.

The Cardiovascular System discusses the anatomy of the heart and blood vessels, the physiology of circulation (blood pressure, pulse), and the common non-communicable disease, hypertension. Hence helpful to medical, nursing, and public health students.

An important chapter, The Lymphatic System and Body Defenses provides about the anatomy of lymphatic organs, lymph nodes, lymphatic vessels, and body defense mechanisms. Thus, practicable for disease prevention and control for epidemiologists, immunologists, and virologists.

The Respiratory System explores the structure and functions of respiratory organs and respiratory disorders: chronic obstructive pulmonary disease and lung cancer.

In the Digestive System and Body Metabolism, the authors provide detailed explanations of the anatomy of the digestive system, nutrition, and metabolism focusing on nutritionists, public health students, and medical and nursing students.

The Urinary System explains the structure and function of organs in the urinary system and fluid, electrolytes, and acid-base balance within one chapter, and is mentioned to Licensed Practical Nurse (LPN).

The last one is The Reproductive System. All contents of the structure and functions of male and female reproductive systems, male and female reproductive hormones, the menstrual cycle, fertilization, pregnancy, embryonic development, and contraception are in detail. Therefore, public health students and nursing students can easily understand.

End of each chapter, summary Outlines help the students understand more efficiently, followed by relevant review questions, critical thinking, and clinical application questions. Thus, students can practice resourcefully. Easy navigation with numbered sections and sub-sections throughout the book.

To sum up, this brief and accessible text combines short, easy-to-read chapters with easy-to-follow figures to provide a near-perfect level and depth of content. A clear and friendly writing style aids the students in easily memorizing, learning, and remembering concepts. Also, the Closer Look & Career Features sections cover key points in the book.

Dr. Marieb and Dr. Keller present the necessary details of the concepts of Anatomy and Physiology with the clinical aspects of allied health students, especially nursing students. Therefore, I utterly recommend the book "Essentials of Human Anatomy & Physiology 13th edition" because it is the gold standard for learning anatomy and physiology, saving time and money for students outside the United States.