

INTRODUCTION TO HEALTH CARE & CAREERS

Enhanced Edition

Roxann DeLaet, RN, MS

*Professor of Nursing
Sinclair Community College*

Dayton, Ohio



JONES & BARTLETT
LEARNING



World Headquarters
Jones & Bartlett Learning
5 Wall Street
Burlington, MA 01803
978-443-5000
info@jblearning.com
www.jblearning.com

Jones & Bartlett Learning books and products are available through most bookstores and online booksellers. To contact Jones & Bartlett Learning directly, call 800-832-0034, fax 978-443-8000, or visit our website, www.jblearning.com.

Substantial discounts on bulk quantities of Jones & Bartlett Learning publications are available to corporations, professional associations, and other qualified organizations. For details and specific discount information, contact the special sales department at Jones & Bartlett Learning via the above contact information or send an email to specialsales@jblearning.com.

Copyright © 2012 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

All rights reserved. No part of the material protected by this copyright may be reproduced or utilized in any form, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the copyright owner.

The content, statements, views, and opinions herein are the sole expression of the respective authors and not that of Jones & Bartlett Learning, LLC. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not constitute or imply its endorsement or recommendation by Jones & Bartlett Learning, LLC and such reference shall not be used for advertising or product endorsement purposes. All trademarks displayed are the trademarks of the parties noted herein. *Introduction to Health Care & Careers, Enhanced First Edition* is an independent publication and has not been authorized, sponsored, or otherwise approved by the owners of the trademarks or service marks referenced in this product.

There may be images in this book that feature models; these models do not necessarily endorse, represent, or participate in the activities represented in the images. Any screenshots in this product are for educational and instructive purposes only. Any individuals and scenarios featured in the case studies throughout this product may be real or fictitious but are used for instructional purposes only.

This publication is designed to provide accurate and authoritative information in regard to the Subject Matter covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the service of a competent professional person should be sought.

32230-9

Production Credits

VP, Product Management: Amanda Martin
Director of Product Management: Cathy L. Esperti
Product Specialist: Ashley Malone
Product Coordinator: Elena Sorrentino
Digital Project Specialist: Angela Dooley
Director of Marketing: Andrea DeFronzo
Marketing Manager: Suzy Balk
Production Services Manager: Colleen Lamy

VP, Manufacturing and Inventory Control: Therese Connell
Product Fulfillment Manager: Wendy Kilborn
Composition: S4Carlisle Publishing Services
Project Management: S4Carlisle Publishing Services
Cover & Text Design: Michael O'Donnell
Senior Media Development Editor: Troy Liston
Rights Specialist: Becky Damon
Printing and Binding: LSC Communications

Library of Congress Cataloging-in-Publication Data

Library of Congress Cataloging-in-Publication Data unavailable at time of printing.

LCCN: 2020936102

6048

Printed in the United States of America
24 23 22 21 20 10 9 8 7 6 5 4 3 2 1

Reviewers

The author would like to extend her sincere thanks to those who offered feedback and reviews throughout the development of this book.

Angela Ables

Lanier Technical College
Oakwood, GA

Josephine Babiarz

Assistant Professor of
Pharmacy Administration
Massachusetts College of Pharmacy
and Health Sciences
Boston, MA

Jeremy Barnes, PhD

Professor
Health, Human Performance and Recreation
Southeast Missouri State University
Cape Girardeau, MO

Lisa Anne Beck

Chattahoochie Technical College
Marietta, GA

June Bledsoe

Patient Care Instructor
West Georgia Technical College
Douglasville, GA

Cindy Bowers

Montana State University
Billings, MT

Kathy Carter

Program Chair, Health and Life Science
Athens Technical College
Athens, GA

Janie Corbitt, RN, BLS

Instructor
Allied Health Core
Central Georgia Technical College
Milledgeville, GA

Ruth Crozier

Director, Student Affairs
University of Missouri
Columbia, MO

Adam Decker

North Metro Technical College
Acworth, GA

Marie Fenske, EdD

Director
Clinical Education
GateWay Community College
Phoenix, AZ

Charles Fox

Wichita State University
Wichita, KS

Ann Ghabel

Kirkwood College
Iowa City, IO

Frances Gilman, MS, RT(R)(CT)(MR)(CV)

Chairman
Radiologic Sciences
Thomas Jefferson University
Philadelphia, PA

Harold Horn

Professor, Health Sciences
Lincoln Land Community College
Lincoln, IL

M. Maguire McDaniel, BA, LPN, CMA (AAMA)

Instructor
Medical Assisting & Health Care Support
Ivy Tech Community College of Indiana
Anderson, IN

Kynthia James

Southwest Georgia Technical College
North Thomasville, GA

Debra McKinney

TESST College of Technology
Baltimore, MD

Linda Miedema PhD

Associate Vice President
Institute of Nursing
Brevard Community College
Cocoa, FL

Pat Moody, RN

Athens Technical College
Athens, GA

Sophia Munro

Professor
Palm Beach State College
Boca Raton, FL

Brigitte Niedzwiecki

Chippewa Valley Technical College
Eau Claire, WI

Kathleen Olewinski

Bryant & Stratton College

Marcia Parry, CPA, MAcct., MS-ISM

Associate Professor, Health
Care Administration
Ferris State University
Big Rapids, MI

Linda Pearson, PhD

Division Chair, Health Sciences
Carl Albert State College
Shady Point City, OK

Kathy Taylor Remsburg, MS, ATC, LAT

Director, Athletic Training Education Program
and Associate Professor
Athletic Training
Franklin College
Franklin, IN

Lois Schaffer, M.Ed., RT(R), RCIS

Associate Professor and Program Director
Cardiovascular Technology, Allied Health
Harrisburg Area Community College
Lancaster, PA

Christine Schara

Program Director, Diagnostic Medical Sonography
Athens Technical College
Athens, GA

Lalit J. Shah Ed.D., OTR/L

Professor
Occupational Therapy
Misericordia University
Dallas, PA

Ramona Sheppard, RN

Instructor
Medical Assisting and Health Care Core
Central Georgia Technical College
Milledgeville, GA

Cheryle Turner

Patient Care Instructor
West Georgia Technical College
Waco, GA

Sharon A. Wygal, MSED, CHES

Adjunct Instructor
Health Sciences
Liberty University
Lynchburg, VA

Preface

Welcome to *Introduction to Health Care & Careers!* This text provides students beginning their health care education with the fundamentals they need to develop their personal and professional skills, understand their chosen profession, and succeed in the world of health care. This text was conceived and designed specifically to meet the growing market demand for a book that gives the best of both worlds—skill development *and* career choice information.

Introduction to Health Care & Careers will satisfy instructors' need for a text that blends those two essential content areas while sounding the appropriate depth in cross-discipline knowledge and focusing on appropriate allied health careers.

Additionally, its student-friendly approach will help users excel in their study. The text and its ancillary materials are packed with features that foster learning and retention. A proven-effective “workbook style,” in which topics are followed by exercises to reinforce the learned material is the format preferred by students and instructors alike.

Mission

The mission of *Introduction to Health Care & Careers* is to be the essential resource for introductory health care courses. To this end, the book perfectly balances background information, core competencies, and career information, supplying everything beginning health care students need—and *leaving out what they don't*. Critical content is not obscured by excessive detail.

The content is informed throughout by the three skill sets designated by the National Health Care Skill

Standards Project (NHCSSP) as essential functions of health care practitioners:

- **Therapeutic functions** maintain or change the health status of the client over time; they include care management, dental assisting, dietetics, home health, medical assisting, nursing, pharmacy, rehabilitation, respiratory care, social work, and others.
- **Diagnostic functions** create a picture of client health status at a single point in time; they include cardiology, imaging, medical laboratory, radiography, and others.
- **Information Services functions** document client care; they include medical records management, risk management, unit coordination, utilization review, and others. (NHCSSP)

The chapters in Part IV: Career Profiles are organized around these functional groups, giving students greater context for each of the profiled health professions.

Ideal Organization

Introduction to Health Care & Careers is seamlessly organized to guide students through the content in a logical, progressive fashion:

- **Part I, The World of Health Care.** The book begins by showing students the lay of the land in today's health care system, including its history and present state, health care facilities, professionals, and trends. A broad look at the all-important subject of health care economics follows, including various health care institutions, payment methods, managed care, cost containment, and efficient use of resources. Part I concludes with the issues of law, ethics, and professionalism that beginning health care students must grasp to succeed.

- **Part II, Personal and Professional Skills.** Building on the groundwork established in Part I, this section of the book helps students develop the personal qualities and “soft skills” they’ll need in order to become successful health professionals, including personal and professional behavior, stress management and personal health, communication skills, diversity, critical thinking and problem-solving, and teamwork and leadership.
- **Part III, Workplace Skills.** This essential part of the book provides students with the core competencies and skills they’ll need regardless of their chosen health profession, including computers and technology, medical terminology basics, medical documentation, medical math, safety and infection control, body mechanics, vital signs, and first aid and emergency procedures.
- **Part IV, Career Profiles: The Most In-Demand Professions.** With a strong focus on orienting students to the realities of working in health care, this section begins with an overview of the many careers available today in the health professions. Building on these overviews, the chapters in this section provide in-depth profiles of more than 30 in-demand professions, clustered by function: medical and surgical patient care, nursing patient care, dental patient care, laboratory and pharmacy services, diagnostic and imaging services, therapy and rehabilitation, and health information and administration.
- **Part V, Essentials of Human Anatomy and Physiology.** This final section of the book is included to provide an introduction to one of the toughest subjects that most health professions students must face: the human body itself.

Engaging Features

This text uses a variety of features to engage students with the content. Every chapter contains essential textbook features that frame and reinforce the content. *Chapter Features* include:

- **Chapter Objectives** that define key topics and concepts at the beginning of each chapter
- **Key Terms** lists that alert readers to important concepts that will be defined within the chapter and include pronunciations for the most challenging words
- **Chapter Wrap-Ups** that offer self-assessment and further opportunity for study with:
 - **Chapter Highlights** bulleted summaries;
 - **Review Questions** including matching, multiple choice, and short answer elements;
 - **Investigate It** active learning exercises; and
 - **Recommended Reading** for independent exploration.

In addition, *Special Features* appearing regularly throughout the text will captivate readers and make learning lively and fun:

- **CheckPoints** throughout the chapters pose questions to reinforce and review each section’s content.
- **On Location** boxes are brief scenarios followed by open-ended questions to prompt students to think critically about what they’re learning.
- **Newsreel** features highlight current trends and research information, emphasizing for students the constant growth and development of health care knowledge.
- **Career Levels** tables show at-a-glance educational requirements, projected job growth, and average salaries.
- **Health Care Specialty** boxes focus on a particular profession, giving a definition and highlights of the job.
- **Extra! Extra!** boxes feature pertinent and fascinating facts about the human body.
- **Zoom In** features offer insider tips about key aspects of patient care or other on-the-job practices as well as key information about working in health care.
- **Spotlight on Skills** outline typical tasks of health care workers in a variety of professions, showing students a snapshot of what it’s like to provide care in the real world.
- **Procedures** are step-by-step, how-to descriptions of basic tasks required in many health professions, such as taking oral temperature and handwashing, that also include rationales for each step.

Readers will also appreciate the Glossary of terms provided as well as the very useful appendixes such as Professional and Government Resource Organizations.

Student Resources

Carefully designed ancillaries, available on this text’s online site, will offer still more opportunity to reinforce and retain skills and concepts learned from the text. In this blockbuster package, students are given free access to a host of captivating tools and exercises. Get a learning advantage with these exciting *Bonus Features*:

- Spanish/English audio glossary
- Videos and animations
- Study Guide
- Worksheets
- Competency Evaluation Forms
- Anatomy & Physiology Module with Heart & Lung Sounds
- and more!

Instructor Resources

For instructors, the text comes with access to PowerPoint presentations, lecture outlines, and an image bank, Answers to Checkpoint and Chapter Wrap Up Questions, Answers to Worksheets, Study Guide Answer Key, and Test Bank. See the inside front cover of this book for instructions on how to gain access to these and other resources designed specifically to help instructors teach

more effectively, or contact your Jones & Bartlett Learning Account Representative.

Embarking on a career in health care is both an admirable decision and a rewarding pursuit. *Introduction to Health Care & Careers* provides the foundation vital to success in this worthwhile endeavor. It makes teaching and learning about health care meaningful and exciting.

User's Guide

Introduction to Health Care & Careers offers an engaging, student-friendly approach to learning the fundamentals of a career in health care. Using a workbook style and multiple opportunities for self-assessment coupled with up-to-date career data, it will provide you with both skill development *and* career choice information in a logical, meaningful progression. Along the way, more than a dozen different bonus features will guide you through the material and captivate your imagination, to help you understand and retain the information you are learning. Let's take an imaginary tour of these bonus features to make sure you reap all the many benefits this book has to offer!

Part Opening Features

Part openers provide both a table of contents of chapters in each part as well as a concise overview of each chapter contained there. Understanding the broader context of what you are learning will deepen your grasp of the material. Use this helpful feature to understand what is covered in each part and as a roadmap for what comes next.



Chapter Opening Features

Health Care Economics **2** CHAPTER

CHAPTER OBJECTIVES
 After careful study of this chapter, you should be able to:

- Recognize the importance of health care economics.
- Identify the various types of health care institutions.
- Define the most common health care payment methods.
- Characterize the significance of managed care.
- Identify the purpose of cost containment measures.
- Explain the importance of resource management.

KEY TERMS

co-insurance	government institution	managed care	private insurance
co-pay	government plan	Medicaid	proprietary institution
deductible	health care cost	Medicare	prospective payment
diagnostic related groups (DRGs)	containment	out-of-network provider	system
direct payment	health maintenance organization (HMO) plan	point-of-service (POS) plan	resource utilization
flexible spending account (FSA)	health savings account (HSA)	preferred provider organization (PPO) plan	TRICARE
gatekeeper	in-network provider	premium	utilization review
			voluntary nonprofit institution

The costs of health care are a growing concern for all Americans, consumers and providers alike. Rising drug, technology, and professional costs, along with an aging population, are major factors contributing to rising costs.

The opening page of each chapter offers multiple entry points into the material ahead and a variety of effective methods for review of that information. For example, Chapter Overviews briefly introduce the chapter to come and provide a synopsis of its contents. These jumping-off points are opportunities to spark lively and provocative classroom discussion as well as individual deliberation. Also kicking off each chapter are the following features:

- **Chapter Objectives** list key learning goals for the chapter. This useful feature has a triple function: First, review these objectives at the beginning of the chapter to familiarize yourself with what you need to take away from the chapter. Second, when you have finished the chapter and its accompanying exercises, revisit the objectives to assess your level of mastery. Third, refer back to objectives lists to provide an effective framework for test prep.
- **Key Terms** alphabetized lists present need-to-know terms for the specific chapter

content covered. Alerting readers to important concepts that will be defined within the chapter and in the end-of-book Glossary, this feature also includes pronunciations for the most challenging words. For your convenience, each term appears in boldface at its first use in the chapter. These lists structure each chapter and offer an alternate means of chapter review and study.

Intrachapter Features

CHECK POINT

- 1 List major factors causing a rise in health care costs.
- 2 What are some major differences among the three types of health care institutions (voluntary nonprofit, proprietary, and government) found in the U.S.?

Each chapter offers a variety of fun features to complement and enliven the narrative text. Immerse yourself in these features to savor each chapter to the fullest.

CheckPoints interspersed throughout chapters pose 1 or 2 short-answer, recall questions for you to answer based on what you have read so far. They also provide interludes for you to pause and reflect on what you have learned. Complete each CheckPoint to steadily build your knowledge and reinforce learning before continuing on to the next section.

On Location boxes depict brief scenarios involving patient interactions or other health care tasks that a health care worker might actually encounter. Each scene is followed by open-ended questions that ask you to think critically about how you might act or what you might suggest in such a circumstance based on what you are learning. Enjoy this advance opportunity to walk in a health care professional's shoes for a while and visualize yourself in your future career!



ON LOCATION

Ethical Dilemma

How would you handle the following hypothetical situation?

You are a certified nursing assistant in a hospital, and one of the physicians with whom you work has diagnosed a female patient on your floor with cancer. The physician informs the patient's husband of the diagnosis, but does not plan to tell the patient that she has cancer or that she has six months to live. The husband agrees with the doctor's decision not to tell the patient because he believes his wife will become depressed or hysterical. Do you think the doctor acted ethically? How do the doctor's actions affect your and other health care workers' abilities to care for the patient?



HEALTH CARE SPECIALTY

Dermatologist

A dermatologist is a physician who specializes in treating skin diseases. To diagnose many skin disorders, a dermatologist obtains a skin biopsy. A clinical laboratory technologist or technician does clinical laboratory testing on the biopsy. The dermatologist interprets the results to diagnose a skin disease.

Health Care Specialty boxes focus on a particular profession, giving a definition and highlights of the job. These boxes can help you decide where you would like to specialize in your career.

Newsreel features brief "articles" on current trends and research information. Keeping you informed in the constantly growing and developing field of health care, this feature is your very own medical "journal," conveniently located right inside your textbook!



NEWSREEL

Oral Pathology

Every dental checkup includes a thorough examination of the mouth for evidence of disease. Dentists and dental hygienists are trained to detect not just common problems like tooth decay or gum disease, but a wide range of diseases that affect the mouth and other parts of the body. The first signs of some medical problems—osteoporosis or AIDS, for example—can appear in the mouth.

In oral pathology classes, dental professionals learn to identify diseases, or narrow the possibilities, from signs such as the appearance of a lesion or ulcer or a characteristic swelling or inflammation. General dentists treat some diseases themselves; for others, they refer the patient to a specialist. Diseases that affect the teeth,

tongue, gums, jaw, and lining of the mouth may be referred to an oral and maxillofacial pathologist for final diagnosis and treatment.


Examples of oral diseases include stomatitis, a viral illness; burning mouth or burning tongue syndrome; a yeast infection known as oral candidiasis; recurrent cancer sores; and various bone diseases.

The ADA recently concluded a three-year public awareness program on oral cancer. Although the number of new cases and deaths among the general public has been falling slowly for many years, the number of new cases among adults under age 40 has been rising significantly. The goals of the campaign were to boost public awareness of oral cancer and to highlight the dentist's role in identifying the disease.

CAREER LADDER Audiology and Speech-Language Pathology Occupations			
Occupation	Requirements	Median Earnings	Growth Rate
Speech-language pathologist	Licensed or registered in 47 states. <ul style="list-style-type: none"> • Master's degree from accredited college or university • 300–375 hours of supervised clinical experience and nine months of postgraduate professional work • National exam 	\$62,930	19%
Audiologist	Licensed in all states <ul style="list-style-type: none"> • Master's degree in audiology (doctoral degree or equivalent in 18 states) 	\$62,030	25%
Audiometric technician	Regulated in 32 states. Standards vary widely. <ul style="list-style-type: none"> • High school diploma or GED and, often, a brief training course • Certificate or training program • Training through military 	Not available	Not available
Speech-language pathology assistant	Regulated in 32 states. Requirements vary. <ul style="list-style-type: none"> • ASHA recommends associate's degree program. 	60%–75% that of a speech-language pathologist	Not available


Career Ladder tables break down specific occupations, such as nursing, into basic career details to show you the practice at a glance. Educational and licensing requirements, projected job growth, and average salaries are categorized by job and feature the most up-to-date data available. Use Career Ladder to make side-by-side job comparisons and choose the right fit for you!

Extra! Extra! boxes feature pertinent and fascinating facts about the human body. Use these boxes to expand your knowledge of topics related to key concepts such as blood facts. You'll be amazed at what your body can do—and inspired to contribute to the world of health care!



WHITE COAT HYPERTENSION

Some patients suffer from a condition known as “white coat hypertension.” For these individuals, the stress of seeing a health care professional is enough to raise their otherwise normal blood pressure. Simply leaving the health care setting allows their blood pressure to return to normal. This phenomenon is one reason why hypertension should not be diagnosed based on a limited number of blood pressure readings.



ZOOM IN

The Computer Explosion

Just a few decades ago, computers were the size of a large room. These early computers were costly to build, difficult to run, and expensive to maintain. As a result, the use of computers was limited to universities, large corporations, and governments.

In the 1980s, however, personal computers became affordable and popular. Now computers touch nearly every facet of life. While processing power and complexity increased, size and cost significantly decreased. Today, smart phones, roughly the size of a credit card, have thousands times more computing power than the machines that helped put the first man on the moon.

The use of computers in health care has paralleled the use of computers in the world in general. Initially, computers were used only in large research hospitals or institutions with vast amounts of funding. Today, however, even a small doctor's office likely maintains patient records electronically. Many health care professionals use tablet PCs as they examine patients to record temperature and other vital statistics directly into patient medical records.

Zoom In features offer useful facts and tips about patient care and other on-the-job practices. Get an inside look into working in health care with these snapshots of key day-to-day aspects of the job. Use this sneak peek to help you make the jump from classroom to job.

Spotlight on Skills focuses on typical tasks of health care workers in a given health profession, such as medical assistant, to give you an exciting glimpse of what it's like to work in that role. Full-color photographs accompany step-by-step descriptions of basic tasks required of that position, such as how to perform an intradermal injection, to show you the “real thing.” Use this feature both as advance practice in basic skills and, if you haven't done so already, to help you choose the right job for you.



SPOTLIGHT ON SKILLS Typical Task: Administer an Intradermal Injection

Position: Medical Assistant

When a patient needs medication, the most efficient way of administering it, other than orally, is by injection. *Intradermal injections* are administered into the *dermis*, the layer beneath the skin's surface. They are used to administer different kinds of skin tests for allergy testing and tuberculosis (TB) screening.

To prepare for an injection, a medical assistant washes his or her hands and gathers supplies. The medical assistant chooses the proper needle and syringe, reviews the physician's order, and selects the correct medication. The medical assistant must check the label three times—when taking the medication from the shelf, when drawing it up into the syringe, and when returning it to the shelf. The medical assistant then calculates the dosage, if necessary, and assembles or prepares the syringe.

When providing direct care to patients, the medical assistant should greet and identify the patient and explain what is about to happen. For an injection, the medical assistant must ask about any known medication allergies. Then he or she selects an appropriate site to administer the injection. Intradermal injections are usually given in the anterior forearm or the upper back. After cleaning the site, the medical assistant puts on gloves, pulls the patient's skin taut to allow the needle to enter the skin with less resistance and to secure the patient against movement, and inserts the needle at a 10- to 15-degree angle. This low angle helps ensure that the correct layer of skin is reached.

After the injection, it is important not to press on or massage the site, which could push the medication into



Intradermal injections are given at a 10- to 15-degree angle.

the tissues or out of the injection site. It is also undesirable to apply a bandage to the site, because a bandage might cause redness or swelling that could result in an inaccurate reading. The needle is immediately discarded into a **sharps container** (a puncture-resistant, leakproof disposable container for sharp items, such as needles and scalpels).

Depending on the type of test, the length of time required for a reaction, and the policies of the particular workplace, the medical assistant may read the test results and check the injection site or may tell the patient to return to the office at a particular time or check the results at home. Then the medical assistant documents the procedure, site, results, and any instructions to the patient in the medical record.

PROCEDURE Measuring the Radial Pulse

1. Wash your hands.

WHY? Hand washing is an infection control technique that should be performed before and after any patient contact.

2. Greet and identify the patient, and explain the procedure.

WHY? Identifying the patient helps prevent errors.

3. Position the patient with the arm relaxed and supported either on the lap of the patient or on a table.

WHY? If the arm is not supported or the patient is uncomfortable, the pulse may be difficult to find, and the count may be affected.

4. With the index, middle, and ring fingers of your dominant hand, press with your fingertips firmly enough to feel the pulse, but gently enough that you don't interfere with the pulse. Do not use your thumb to feel the pulse.

WHY? Your thumb has a pulse of its own that may be confused with the patient's. You may place your thumb on the opposite side of the patient's wrist to steady your hand.



5. If the pulse is regular, count it for 30 seconds, watching the second hand of your watch. Multiply the number of pulsations by two, as the pulse is always recorded in beats per minute. If the pulse is irregular, count it for a full 60 seconds.

WHY? Counting an irregular pulse for less than 60 seconds may give an inaccurate measurement.

6. Record the rate in the medical record. Note the rhythm if it is irregular and the volume if it is weak, thrifty, or bounding.

WHY? If pulse rates and other vital signs are not recorded, they are considered not to have been performed.

Procedures are sequential how-to descriptions for performing the basic skills required across a variety of health care professions. They include, for example, taking an oral temperature, handwashing, and first aid for shock. Use Procedures boxes to become familiar with many of the skills you will need to learn no matter what health care career you choose. Follow along with detailed step-by-step instructions and example photographs until you are comfortable performing the skill depicted. To ensure that you not only remember *what* to do but also *why*, rationales for each step are given. Knowing that you are prepared with basic skills will give you the confidence you need in your future job.

End-of-Chapter Features

Chapter Wrap-Up

CHAPTER HIGHLIGHTS

- Personal qualities and skills that are important for any successful health care professional include enthusiasm, optimism, self-esteem, honesty, patience, cooperation, organization, responsibility, flexibility, and sociability.

REVIEW QUESTIONS

Matching

1. _____ A belief about the worth or importance of something that acts as a standard to guide one's behavior.
2. _____ Ability to act and make decisions without the help or advice of others.

Multiple Choice

6. Important personal skills for those entering a health care profession include

a. organization	c. sociability
b. flexibility	d. all of the above

Completion

11. _____ may be caused by any number of physical, chemical, or emotional factors and can produce both physical and emotional tension.
12. A common stimulant that can stay in a person's system from 6–12 hours is _____.

Short Answer

16. Why are enthusiasm and optimism important qualities for health care workers?

INVESTIGATE IT

1. What are your strongest personal qualities? Which qualities do you feel are your weakest? Use the Internet to search for information on personality assessment resources, such as the Myers-Briggs Type Indicator and StrengthsFinder. See the inside front cover for details on how to access all the student resources that accompany this text.

RECOMMENDED READING

Eade, Diane M. *Motivational Management; Developing Leadership Skills*. Available at: http://www.adv-leadership-grp.com/Motivational_Article.html.

Heroux, Neomi. *Nutrition and Diet; Clean Living Could Reduce Your Cancer Risk*. Available at: <http://www.healthnews.com/nutrition-diet/clean-living-could-reduce-your-cancer-risk-2706.html>.

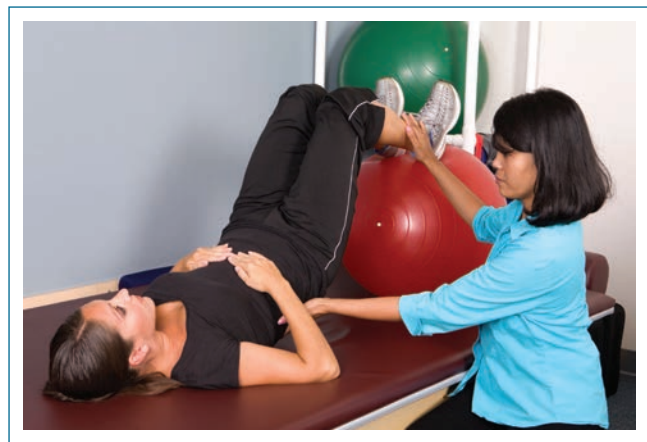
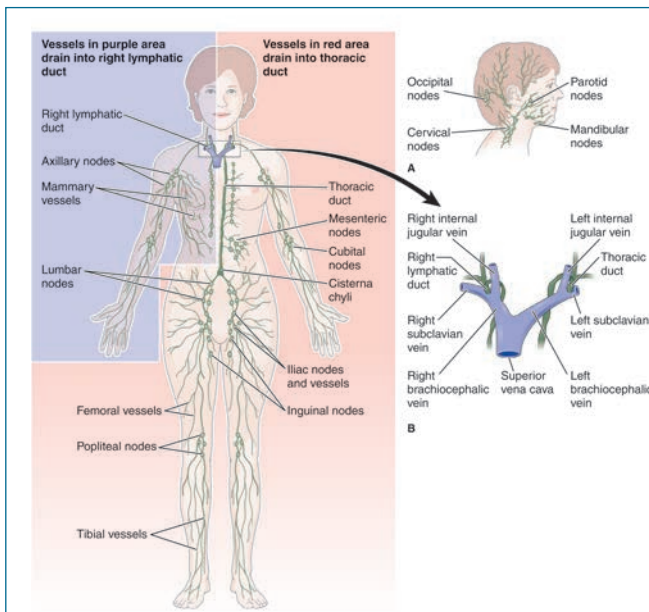
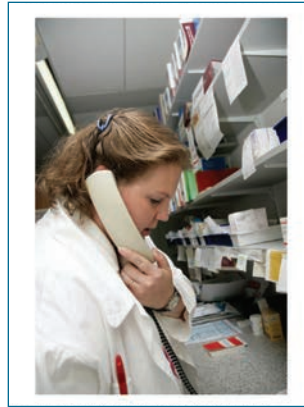
Chapter Wrap-Ups end each chapter on a high note. Providing the triple benefit of review, self-assessment, and suggestions for further exploration, these features are your chapter support network, assuring that you have mastered the chapter content. In Chapter Wrap-Ups you will find:

- **Chapter Highlights** that provide you with a summary of the chapter in easy-to-skim and remember bullet points. Make sure you take away the chapter's most significant concepts by reviewing this list. Also use Chapter Highlights to study for tests and quizzes.
- **Review Questions** help you check your learning and prepare for exams. A variety of the most effective question formats are given at the end of each chapter to keep you on your toes and engaged. They are organized into groups by type:
 - *Matching, Multiple Choice, and True/False* questions check your retention of the facts you learned in the chapter.
 - *Short Answer and Open-Ended* questions require you to apply your learning of facts and concepts to show that you have not only remembered information but also have a good grasp of its significance for health care.
- **Investigate It** activities invite you to take your health care knowledge outside of the classroom into the world at large to develop a fuller understanding of your chosen career. Complete these active learning exercises to connect your education with your future and begin to explore the professional sphere.

- **Recommended Reading** lists offer you suggestions for independent exploration of key chapter topics. Use these well-researched resources to learn more about the aspects of health care that intrigue and excite *you*.
- **Websites for Selected Professional Organizations** lists are your very own library of resources in a convenient and easy-to-locate spot. Visit these websites to obtain additional information about topics covered in the particular chapter, to learn more about a particular organization, and to determine whether one might be right for you to one day join.

Art Program

Because so many of us are visual learners, throughout this textbook, you'll find real-life photographs to complement the narrative, help you make visual connections, and view the world health care workers inhabit.



Summary

This book is your passport to a career in health care. It will make your studying easier and more enjoyable, and in doing so, it will also enhance your understanding. Every aspect of this book—each special feature, each photograph, each topic—was crafted with you, the student, in mind. Working in health care is a worthwhile pursuit; it is our goal to make sure that you find your path to that career intriguing and rewarding. *Introduction to Health Care & Careers* is “just what the doctor ordered”!

Contents

Reviewers iii
Preface v
User's Guide ix

PART I: THE WORLD OF HEALTH CARE 1

Chapter 1: Today's Health Care System 3

Health Care Past and Present 3
Health Care Facilities 10
Health Care Professionals 13
Health Care Trends 14

Chapter 2: Health Care Economics 21

Differences Among Health Care Institutions 22
Health Care Payment Methods 23
Managed Care 27
Cost Containment Measures 28
Utilizing Resources Efficiently 28

Chapter 3: Law, Ethics, and Professionalism in Health Care 33

Law 34
Ethics 39
Professionalism 42

PART II: PROFESSIONAL SKILLS 47

Chapter 4: Personal Qualities and Professional Skills for Success 49

Personal Attributes 50
Professional Attributes 51
Values 53
Stress Management 54
Personal Health 57

Chapter 5: Health Care Communication 63

Communication Process 64
Communication Modes 65
Communication with Patients 70
Recording and Reporting 74
Communication Challenges 75
Telephone Manners 76

Chapter 6: Diversity and Difference in Health Care 81

Cultural and Ethnic Differences 82
Other Differences Among Individuals 87
Diversity in Health Care Practices 88

Chapter 7: Critical Thinking and Problem Solving 97

Critical Thinking 98

Problem Solving 100
Study Skills 102

Chapter 8: Teamwork and Leadership 111

Definition of a Team 112
Leadership 116

PART III: WORKPLACE SKILLS 123

Chapter 9: Computers and Other Technology 125

Computers in Health Care 126
Other Technology in Health Care 134
Staying Current in Technology 134

Chapter 10: Medical Terminology Basics 139

Word Parts 140
Decoding Medical Terms 143
Spelling and Pronunciation 144
Abbreviations and Symbols 145
Using a Medical Dictionary 146

Chapter 11: Medical Documentation 151

Purposes of Documentation 152
Computerized Documentation 153
Types of Information in Patient Records 154
Characteristics of Good Medical Documentation 156
Types of Progress Notes 159
Military Time 161

Chapter 12: Medical Math 165

Uses of Math in Health Care 166
Working with Numbers 166
Systems of Measurement 171

Chapter 13: Safety and Infection Control 179

Role of Regulatory Agencies 180
Principles of Safety 180
Safety Precautions and Actions 182
Infectious Disease 184
Preventing the Spread of Disease 188

Chapter 14: Body Mechanics 197

Safe Movement 197
Poor Body Mechanics 198
Principles of Effective Body Mechanics 201

Chapter 15: Measuring Height, Weight, and Vital Signs 207

Height and Weight 208
Temperature 209
Pulse 212
Respiration 216
Blood Pressure 218
Charting Vital Signs 221

Chapter 16: First Aid and Emergency Procedures 227

First Aid 228
Specific Emergencies 229
Cardiopulmonary Resuscitation 239
Automatic External Defibrillator (AED) 241

PART IV: CAREER PROFILES 245

Chapter 17: Overview of Health Care Careers 247

Career Planning in Health Care 247
Health Care Careers 249

Chapter 18: Patient Care: Medical and Surgical 281

Medical Assistants 281
Surgical Technologists 285
Physician Assistants 288
EMTs/Paramedics 292

Chapter 19: Patient Care: Nursing 299

Registered Nurses 299
Licensed Practical Nurses 305
Certified Nursing Assistants 308

Chapter 20: Patient Care: Dental 315

Dentists 316
Dental Hygienists 320
Dental Assistants 323

Chapter 21: Laboratory and Pharmacy Services 331

Clinical Laboratory Technologists	332
Clinical Laboratory Technicians	335
Laboratory Assistants	339
Pharmacists	341
Pharmacy Technicians	344

Chapter 22: Diagnostic and Imaging Services 351

Cardiographic Technicians	352
Cardiovascular Technologists	354
Phlebotomists	358
Diagnostic Medical Sonographers	360
Radiologic Technologists/Radiographers	363
Nuclear Medicine Technologists	366

Chapter 23: Therapy and Rehabilitation 375

Physical Therapists	375
Physical Therapist Assistants	379
Occupational Therapists	381
Occupational Therapy Assistants	385
Respiratory Therapists	387
Massage Therapists	391

Chapter 24: Health Information and Administration 397

Health Information Technicians	397
Health Information Coders	400
Medical Transcriptionists	404

PART V: ESSENTIALS OF HUMAN ANATOMY AND PHYSIOLOGY 411

Chapter 25: The Body as a Whole 413

Levels of Structure and Organization	414
Whole Body Functions	415
Body Planes and Directions	416
Body Cavities and Regions	419
The Integumentary System	421

Chapter 26: Protection, Movement, and Support 427

The Muscular System	428
The Skeletal System	433

Chapter 27: Coordination and Control 443

The Nervous System	444
The Sensory System	447
The Endocrine System	450

Chapter 28: Circulation and Body Defense 459

The Circulatory System	460
The Heart	460
Blood and Blood Vessels	465
The Lymphatic System	470

Chapter 29: Energy Supply and Use 479

The Respiratory System	480
The Digestive System	485
Metabolism and Nutrition	491
The Urinary System	496

Chapter 30: Reproduction and Development 507

The Male and Female Reproductive Systems	508
Growth and Development	516

Appendix A: Professional and Government Resource Organizations 525

Appendix B: Preparing for a Successful Interview 527

Appendix C: Metric Conversion Table 529

Appendix D: Common Abbreviations and Symbols 531

Glossary: 533

Index	547
-------	-----

