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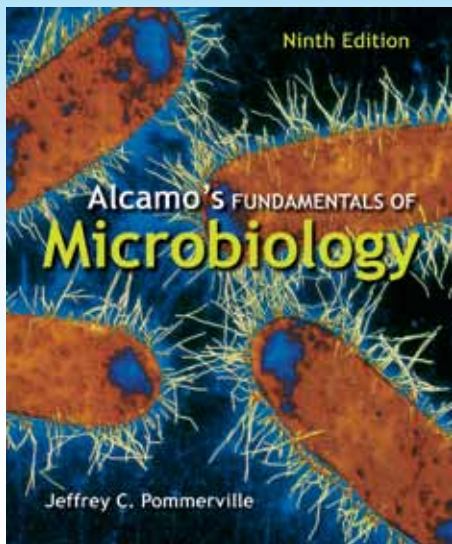
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New 9th Edition!



# Alcamo's Fundamentals of Microbiology

NINTH EDITION

Jeffrey C. Pommerville, PhD,  
Glendale Community College

ISBN-13: 978-0-7637-6258-2  
Hardcover • 860 Pages • © 2011

## Preview Sample Chapters Online!

The *Ninth Edition* of award-winning author Jeffrey Pommerville's classic text provides nursing and allied health students with a firm foundation in microbiology, with an emphasis on human disease. An educator himself, Dr. Pommerville is sure to incorporate accessible, engaging pedagogical elements and student-friendly ancillaries to help students understand and retain key concepts like never

before. Ideal for the non-major, the ninth edition includes numerous new updates and additions, including the latest disease data and statistics, added material on emerging disease outbreaks, an expanded use of concept maps, and much more. With an inviting "Learning Design" format and Study Smart notes to students, *Alcamo's Fundamentals of Microbiology, Ninth Edition* ensures student success as they delve into the exciting world of microbiology.

## Features

- **Revised end-of-chapter materials** reflect a 4-tier learning system and helps students review basic information and evaluate their understanding through increased mastery of higher-order thinking skills.
- **New MicroFocus Boxes** have been added, and others updated, which explore interesting topics concerning microbiology and microorganisms.
- A **revised and updated Chapter 3** reflects current changes in the field of microbiology.
- Pommerville's **acclaimed Learning Design** format enhances student learning and includes activities designed to encourage student interaction and assessment.
- An **eLearning Companion Website** includes a wealth of student learning assessment tools.
- The **Laboratory Manual**, updated for the 9th edition, is available and includes 34 multi-part lab exercises designed to provide basic training in the handling of microorganisms.

## Table of Contents

### Part I: Foundations of Microbiology

1. Microbiology Then and Now
2. The Chemical Building Blocks of Life
3. Concepts and Tools for Studying Microorganisms
4. Cell Structure and Function in the *Bacteria* and *Archaea*
5. Microbial Growth and Nutrition
6. Metabolism of Microorganisms
7. Control of Microorganisms: Physical and Chemical Methods

### Part II: The Genetics of Microorganisms

8. Microbial Genetics
9. Gene Transfer, Genetic Engineering, and Genomics

### Part III: Bacterial Diseases of Humans

10. Airborne Bacterial Diseases
11. Foodborne and Waterborne Bacterial Diseases
12. Soilborne and Arthropodborne Bacterial Diseases
13. Sexually Transmitted and Contact-Transmitted Bacterial Diseases

### Part IV: Viruses and Eukaryotic Microorganisms

14. The Viruses and Virus-Like Agents
15. Viral Infections of the Respiratory Tract and Skin
16. Viral Infections of the Blood, Lymphatic, Gastrointestinal, and Nervous Systems
17. Eukaryotic Microorganisms: The Fungi
18. Eukaryotic Microorganisms: The Parasites

### Part V: Disease and Resistance

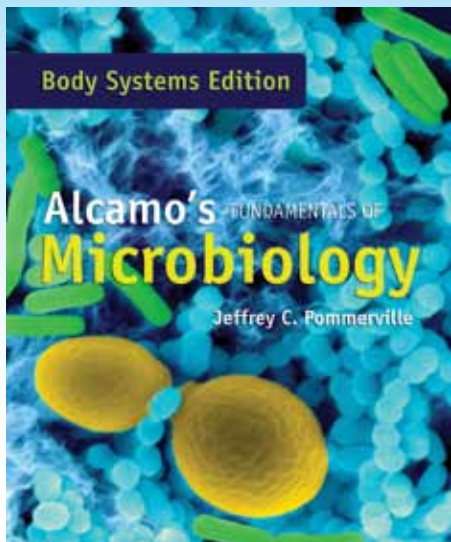
19. Infection and Disease
20. Resistance and the Immune System: Innate Immunity
21. Resistance and the Immune System: Acquired Immunity
22. Immunity and Serology
23. Immune Disorders and AIDS
24. Antimicrobial Drugs

### Part VI: Environmental and Applied Microbiology

25. Microbiology of Foods
26. Environmental Microbiology
27. Industrial Microbiology and Biotechnology

\*Chapters in red are available online only.

Numerous bundling opportunities are available. Contact your Publisher's Representative at 1-800-832-0034 for more information.



# Alcamo's Fundamentals of Microbiology

## BODY SYSTEMS EDITION

**Jeffrey C. Pommerville, PhD,**  
Glendale Community College

ISBN-13: 978-0-7637-6259-9

Hardcover • 1000 Pages • © 2010

Ideal for allied health and pre-nursing students, *Alcamo's Fundamentals of Microbiology, Body Systems Edition* retains the engaging, student-friendly style and active learning approach for which award-winning author and educator Jeffrey Pommerville is known. It presents diseases, complete with new content on recent discoveries, in a manner that is directly applicable to students and organized by body system. A captivating art program, "Learning Design" format, and numerous case studies draw students into the text and make them eager to learn more about the world of microbiology.

## Features

- A **Learning Design format** enhances comprehension and includes activities designed to encourage student interaction and assessment.
- **MicroFocus boxes** explore captivating topics concerning microbiology and microorganisms.
- **MicroInquiry boxes** allow students to interactively investigate an important concept in the chapter.
- Includes the latest information on allergy tests as well as new information on the replication of HIV
- **Concept and Reasoning Checks** measure students' comprehension and retention of section material through a series of questions.
- **Textbook Case boxes** describe and analyze contemporary disease outbreaks.
- **Instructor and student resources**, including a Student Companion Website and Instructor's ToolKit CD-ROM are available. Contact your publisher's representative for more information.

## Table of Contents

### Part 1: The Foundations of Microbiology

1. Microbiology: Then and Now
2. The Chemical Building Blocks of Life
3. Concepts and Tools for Studying Microorganisms
4. Cell Structure and Function
5. Microbial Growth and Nutrition
6. Metabolism of Microbial Cells
7. Control of Microorganisms: Physical and Chemical Methods

### Part 2: The Genetics of Microorganisms

8. Microbial Genetics
9. Gene Transfer, Genetic Engineering, and Genomics

### Part 3: A Survey of the Microbial World

10. Surveying and Classifying the Domains *Bacteria* and *Archaea*
11. Surveying and Classifying the Domain Eukarya
12. The Viruses and Virus-Like Agents

### Part 4: Interactions and Impact of Microorganisms and Viruses with Humans

13. Infection and Disease

14. Resistance and the Immune System: Innate Immunity

15. Resistance and the Immune System: Acquired Immunity

16. Immunity and Serology

17. Immune Disorders

18. Antimicrobial Drugs

### Part 5: Microorganisms, Viruses, and Human Disease

19. Infectious Diseases Affecting the Skin and Eyes

20. Infectious Diseases Affecting the Respiratory Tract

21. Infectious Diseases Affecting the Digestive System

22. Infectious Diseases Affecting the Nervous System

23. Infectious Diseases Affecting the Cardiovascular System (and Systemic Diseases)

24. Infectious Diseases Affecting the Reproductive and Urinary Systems

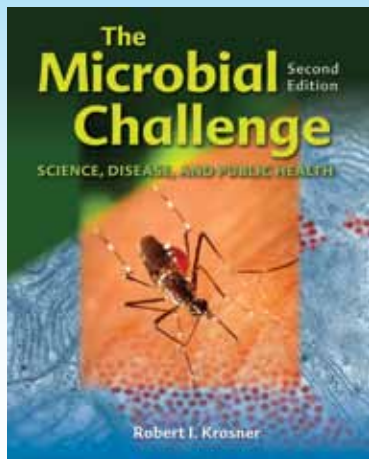
### Part 6: Environmental and Applied Microbiology

25. Microbiology of Foods

26. Environmental Microbiology

27. Industrial Microbiology and Biotechnology

New Edition!



## The Microbial Challenge

*Science, Disease, and Public Health*  
SECOND EDITION

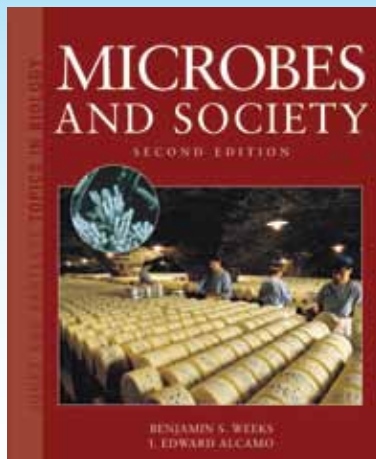
**Robert Krasner**, PhD, MPH,  
Providence College

**ISBN-13: 978-0-7637-5689-5**  
**Paperback • 476 Pages • © 2010**

Ideal for undergraduate non-science majors and allied and public health students, this text presents a fascinating look at human-microbe interactions and examines the disease producers while discussing how, with knowledge-based preparation, we can live in harmony with microbes. It also discusses the ways in which beneficial microbes are involved in the cycles of nature and in the food industry, and how they are used as research tools. A Student Companion Website and an Instructor's ToolKit CD-ROM are available.

### Table of Contents

1. Identifying the Challenge
2. The Microbial World
3. The Beneficial Aspects of Microbes:  
The Other Side of the Coin
4. Bacteria
5. Viruses
6. Bacterial Genetics
7. Concepts of Microbial Disease
8. Epidemiology and Cycle of Microbial Disease
9. Bacterial Diseases
10. Viral Diseases
11. Protozoans and Helminths and the  
Diseases They Cause
12. The Immune Response
13. Control of Microbial Diseases
14. Partnerships in the Control of Infectious Diseases
15. Biological Weapons
16. Current Plagues
17. The Unfinished Agenda



## Microbes and Society

SECOND EDITION

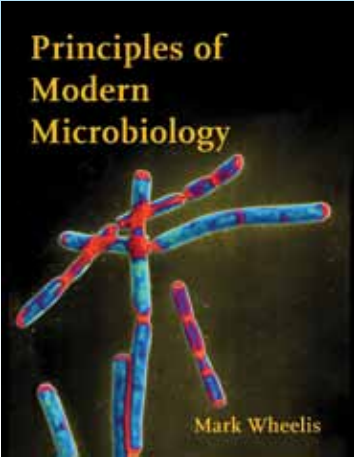
**Benjamin Weeks**, PhD, Adelphi University  
**I. Edward Alcamo**, formerly of State University  
of New York, Farmingdale

**ISBN-13: 978-0-7637-4649-0**  
**Paperback • 502 Pages • © 2008**

The *Second Edition* is the ideal textbook for liberal arts students taking a foundation course in the life sciences. Readers are taken on an extended tour of the microbial world which emphasizes the remarkable variety of microbes and their role in our everyday lives. A Student Companion Website and an Instructor's ToolKit CD-ROM are available.

### Table of Contents

1. The Microbial World: Surprising and Stunning
2. Microbes in Perspective: Of Collectors  
and Classifiers
3. Molecules of the Cell: The Building Blocks of Life
4. The DNA Story: Germs, Genes, and Genomics
5. Bacteria: The First Microbes
6. Viruses: At the Threshold of Life
7. Protists: A Microbial Grab Bag
8. Fungi: Yeasts and Warm Fuzzies
9. Growth and Metabolism: Running the  
Microbial Machine
10. Microbial Genetics: New Genes for Germs
11. Controlling Microbes: Not Too Hot to Handle
12. Microbes and Food: A Menu of  
Microbial Delights
13. Food Preservation and Safety: The Competition
14. Biotechnology and Industry: Microbes at Work
15. Microbes and Agriculture:  
No Microbes, No Hamburgers
16. Microbes and the Environment:  
No Microbes, No Life
17. Disease and Resistance: The Wars Within
18. Viral Diseases of Humans: AIDS to Zoster
19. Bacterial Diseases of Humans: Slate Wipers and  
Current Concerns



## Principles of Modern Microbiology

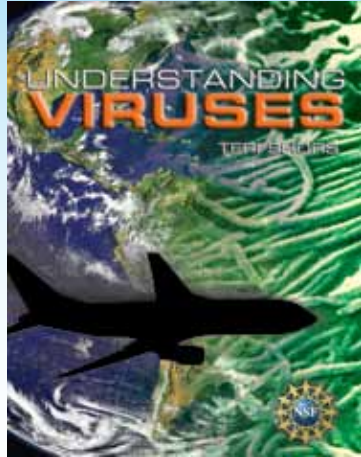
**Mark Wheelis, PhD,**  
University of California-Davis

**ISBN-13: 978-0-7637-1075-0**  
**Hardcover • 528 Pages • © 2008**

This text presents a balanced introduction to microbiology for majors. Written specifically for the one-semester course, this condensed text provides a manageable amount of detail and maintains a level of intellectual rigor appropriate for students at this level. A dynamic art program presents accurate molecular and cellular images in an innovative style, while the author's clear, student-friendly writing style helps students grasp difficult concepts. Microtopics boxes throughout the text describe real-world experiments and allow students to gain a clear sense of the experimental process as it applies to microbiology. A Student Companion Website and an Instructor's ToolKit CD-ROM are available.

### Key Features

- End-of-chapter questions allow students to test their understanding of key material presented throughout the text.
- The structure and function of both prokaryotic and eukaryotic cells is covered in detail.
- A captivating art program presents molecular and cellular images that are clear and accurate.
- The full range and diversity of the microbial world is discovered.



## Understanding Viruses

**Teri Shors, PhD,**  
University of Wisconsin-Oshkosh

**ISBN-13: 978-0-7637-2932-5**  
**Paperback • 639 Pages • © 2009**

*Understanding Viruses* is the ideal text for the modern undergraduate virology course. With a full-color design and rich pedagogy, the text provides a strong, comprehensive introduction to viruses in our daily lives and discusses viral diseases from an epidemiological and global perspective. Chapters discussing specific viral diseases include treatment and prevention information and contemporary case studies, while Refresher and Virus file boxes engage students in the learning process. A Student Companion Website and an Instructor's ToolKit CD-ROM are available.

### Key Features

- Includes historical perspectives in conjunction with the clinical, epidemiological and molecular aspects of viral diseases.
- Features high quality, full-color images.
- Engaging pedagogical elements help students understand and retain key material.
- The development and creation of this text was supported by a National Science Foundation grant.



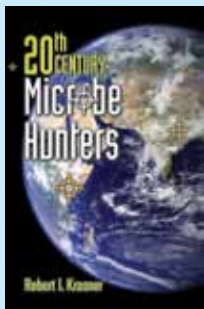
## Encounters in Microbiology

Jeffrey C. Pommerville, PhD, Glendale Community College

**Volume 1, Second Edition**  
ISBN-13: 978-0-7637-5798-4  
Paperback • 119 Pages • © 2009

**Volume 2**  
ISBN-13: 978-0-7637-5799-1  
Paperback • 91 Pages • © 2009

In these two new volumes, emergency room physicians and specialists are medical detectives in numerous “Vital Signs” articles from *Discover* magazine. In these accounts, the patients suffer from serious and puzzling illnesses. The physicians must take the available evidence and narrow the possibilities. They need all of their experience, intuition, and a few crucial observations to diagnose the microbial disease. Dr. Jeffrey Pommerville has added numerous updates and provides new introductions to these captivating case studies along with new end-of-chapter questions that engage the reader and emphasize key microbial concepts.

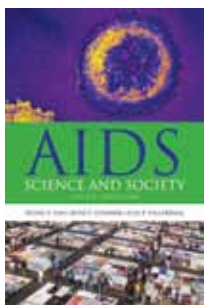


## 20th Century Microbe Hunters

Robert Krasner, PhD, MPH, Providence College

ISBN-13: 978-0-7637-4201-0 • Paperback • 199 Pages • © 2008

Inspire your students with the stories behind the achievements of thirteen twentieth-century microbiologists. These dramatic portrayals reveal the excitement, diligence, and often sacrifice of these eminent researchers and humanitarians. An engaging journey through science, history, and public health, *20th Century Microbe Hunters* is a must-have for anyone making a foray into the fascinating world of microbiology.



## AIDS

*Science and Society*

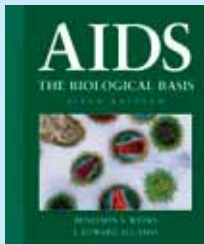
SIXTH EDITION

**Hung Fan**, PhD, University of California, Irvine  
**Ross F. Conner**, PhD, University of California, Irvine  
**Luis P. Villarreal**, PhD, University of California, Irvine

ISBN-13: 978-0-7637-7315-1 • Paperback • 250 Pages • © 2011

Revised and updated with the latest data and statistics in the field, the *Sixth Edition* provides readers with the most current information available on the biology of HIV and the impact it has on society. It provides readers with a solid overview of AIDS from both a biomedical and a psychosocial perspective. The text also presents the molecular and cellular aspects of the virus and the immune system's response to it, and examines the most current epidemiological data and its role in understanding HIV and AIDS.

New 6th Edition!



## AIDS

*The Biological Basis*

FIFTH EDITION

**Benjamin S. Weeks**, PhD, Adelphi University  
**I. Edward Alcamo**, PhD, formerly of State University of New York at Farmingdale

ISBN-13: 978-0-7637-6324-4 • Paperback • 360 Pages • © 2010

Completely updated with the latest information in the field, the new *Fifth Edition* of this award-winning text continues to educate people about effectively controlling the spread of HIV and AIDS. Intended for undergraduate and special topics courses, *AIDS: The Biological Basis, Fifth Edition* also explores the history of AIDS, includes the latest information on HIV testing, and provides background material to help students understand the biological basis of this continuing pandemic. New discussions on the global nature of the disease include the latest data on HIV infection among various groups and populations and the global and regional patterns of HIV. Chapter outlines, Healthline reports, study questions, and a glossary allow readers to focus more sharply on the key concepts presented in the text.



**Microbiology**  
*Pearls of Wisdom*  
SECOND EDITION

**S. James Booth**, PhD, University of Nebraska Medical Center

**ISBN-13: 978-0-7637-6860-7**  
**Paperback • 178 Pages • © 2010**

Updated throughout to keep pace with the rapidly advancing field of microbiology, the *Second Edition of Microbiology: Pearls of Wisdom* is the perfect tool for medical students preparing for the MCAT, VCAT, DCAT, or USMLE, as well as for undergraduate students taking a microbiology course. With a rapid-fire question and answer format, this essential review of microbiology principles is sure to improve performance on microbiology written and practical examinations by allowing students to immediately score their practice exam and quickly see the correct answers.

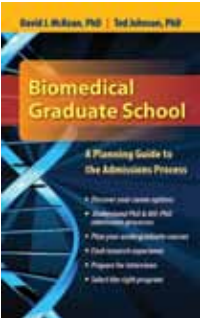


**Guide to Infectious Disease by Body System**

**Jeffrey C. Pommerville**, PhD, Glendale Community College

**ISBN-13: 978-0-7637-3481-7**  
**Paperback • 32 Pages • © 2005**

This guide offers readers an excellent tool for learning about microbial diseases. Each of the fifteen body system units presents a brief introduction to the anatomical system and the bacterial, viral, fungal, or parasitic organisms infecting the system. Anatomical illustrations are captioned with the diseases' signs and symptoms. Each unit also provides the names and brief descriptions of each disease, and their causes and treatments. This book makes an excellent infectious disease primer and quick reference for any microbiology, anatomy and physiology, or allied health student.



**Biomedical Graduate School**  
*A Planning Guide to the Admissions Process*

**David J. McKean**, PhD, Mayo Clinic  
**Ted Johnson**, PhD, St. Olaf College

**ISBN-13: 978-0-7637-6000-7**  
**Paperback • 167 Pages • © 2009**

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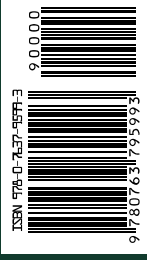
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