

BIOLOGICAL SCIENCES

ACADEMIC CATALOG 2016



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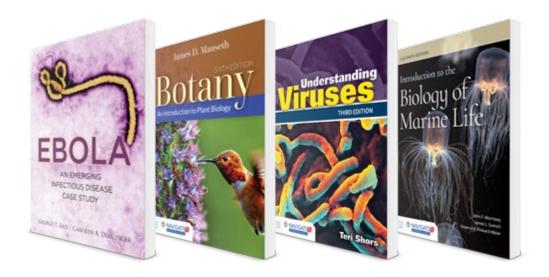
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—Joceline Boucher, Associate Academic Dean, Maine Maritime Academy



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Human Biology

EIGHTH EDITION

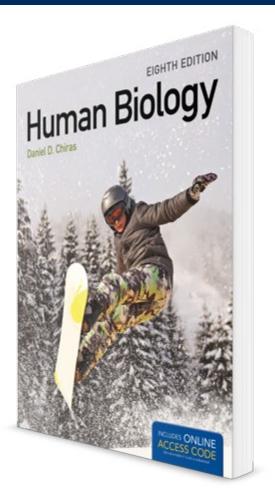
Daniel D. Chiras,

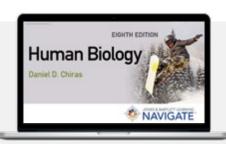
Director, The Evergreen Institute

Designed for the undergraduate, non-science major, the thoroughly updated *Eighth Edition* continues to present the latest information on the structure, function, health, and disease of the human body, while maintaining the central organizational theme of homeostasis. This acclaimed text explores the world from the cellular level, followed by a look at tissues and organs, and then moves on to a discussion of humans as organisms within a complex evolutionary and ecological environment.

KEY FEATURES

- New Point/Counterpoints on current topics of great interest, including vaccination against common diseases, vaccination against human papilloma virus, the safety of genetically modified organisms, and the safety of milk from cows treated with growth hormone
- Features a reorganized chapter layout so content on the circulatory system and blood are presented before the chapter on nutrition and digestion





Navigate Human Biology

Navigate Human Biology is an easy-to-use and fully customizable online learning platform that combines authoritative content with interactive tools, assessments, robust reporting and grading functionality, and includes the complete interactive eBook.

Option 1:

Paperback with Navigate Human Biology, Eighth Edition Access • ISBN: 978-1-284-07741-4 • 598 pages • © 2015 http://go.jblearning.com/HumanBio8e

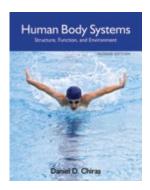
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Navigate Human Biology, Eighth Edition Access Only • ISBN: 978-1-284-03791-3 • © 2015

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Paperback with Navigate Companion Website Access • ISBN: 978-1-284-03181-2 • 598 pages • © 2015 (Does Not Include Access to eBook or Course Management Tools)

HUMAN BIOLOGY & SCIENTIFIC LITERACY



Human Body Systems

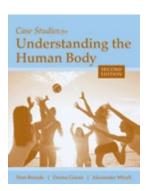
Structure, Function, and Environment SECOND EDITION

Daniel D. Chiras, Director, The Evergreen Institute

This text is an informative primer that focuses on the organ systems within the human body, and their part in health and disease. Focusing primarily on the organ systems that comprise the body, readers will learn the main parts of each system and how they operate, as well as what happens when things go wrong.

ISBN: 978-1-4496-4793-3 • Paperback • 176 pages • © 2013

http://go.jblearning.com/BodySystems2e



Case Studies for Understanding the Human Body

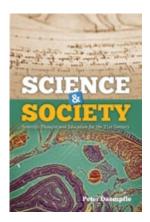
SECOND EDITION

Stanton Braude Deena Goran Alexander Miceli

Revised and updated, this outstanding resource is the ideal supplement for all students enrolled in an A&P or Human Biology course. The case exercises work well in a cooperative learning environment where students work together to review and solve open-ended questions or as homework assignments. New topics for the *Second Edition* include new chapters on the digestive, respiratory, and nervous system, as well as new chapters on the senses. Students will benefit from the real-world case studies discussed in the text and develop communication and critical-thinking skills they will use throughout their lives.

ISBN: 978-1-4496-0499-8 • Paperback • 196 pages • © 2012

http://go.jblearning.com/Braude



Science & Society

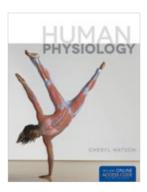
Scientific Thought and Education for the 21st Century

Peter Daempfle, SUNY Delhi

Written for an undergraduate, majors and non-majors foundational course in science, this text helps students become better consumers of science by showing them how to think like a scientist. Scientific principles are infused with case studies, stories, paradoxes, poetry, medical dilemmas, and misconceptions, all through a lens of skepticism. Throughout the book, provocative science examples are provided to guide students and encourage them to consider facts more critically.

ISBN: 978-1-4496-8502-7 • Paperback • 264 pages • © 2014

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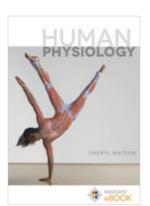
Human Physiology

Cheryl Watson, Central Connecticut State University

Designed for the one-semester undergraduate human physiology course, this text provides students with in-depth knowledge and appreciation of the fundamentals of human physiology. Each chapter integrates real-world case studies that allow students to exercise new skills. In addition, two continuing clinical case studies threaded throughout support students in understanding the ways in which physiological systems are affected by clinical conditions. This text encourages students to think in terms of larger structures and mechanisms, develop critical-thinking skills, apply knowledge, and synthesize information, rather than simply memorize facts.

ISBN: 978-1-284-03517-9 • Paperback • 294 pages • © 2015

http://go.jblearning.com/HumanPhysiology



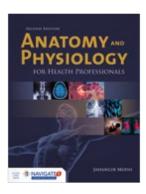
Navigate eBook: Human Physiology

Cheryl Watson, Central Connecticut State University

Navigate eBook: Human Physiology features embedded interactive and engaging animations, exercises, and assessment questions that serve as "speed bumps" to ensure students fully comprehend the material. Priced at half the cost of the printed textbook, the Navigate eBook offers students an affordable and interactive alternative.

ISBN: 978-1-284-03798-2 • Navigate eBook • 294 pages • © 2015

http://go.jblearning.com/HumanPhysEbook



Anatomy and Physiology for Health Professionals

SECOND EDITION

INCLUDES NAVIGATE 2 ADVANTAGE ACCESS

Jahangir Moini, Eastern Florida State College

The updated *Second Edition* is filled with new content that is presented in an accessible format including a full-color layout with more than 450 photos and illustrations, as well as access to helpful online animations and interactive learning tools. The perfect resource for health professions students in career, certificate, 2-year, or 4-year programs, this text can be utilized in a traditional, online, or hybrid course; or as a prerequisite.



Paperback with Navigate 2 Advantage Access ISBN: 978-1-284-03694-7 • 690 pages • © 2016

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Navigate 2 Advantage Access Only ISBN: 978-1-284-05742-3 • © 2016

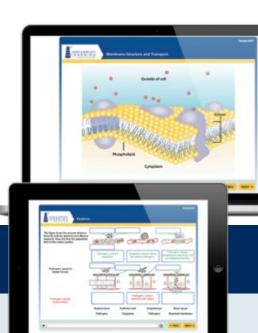
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KEY FEATURES

- Includes 20 NEW interactive animations!
- Brings key microbiology concepts to life through dynamic, interactive exercises
- Each animation is based on a real-world microbiology application
- "Speed Bump" questions throughout each animation ask students to pause and assess their understanding of the concept at hand
- Narrated exercises fully engage students in the learning process
- Exercises and Assessment questions are offered in a variety of formats including drag and drop, order of processes, multiple choice, and fill-in-the-blank

The Jones & Bartlett Learning suite of animations demonstrates the processes of or concepts involving:

- Domains of Life
- · Gram Staining
- Light Microscopy
- Membrane Structure and Transport
- Bacterial Cell Motility and Chemotaxis
- · Binary Fission
- Bacterial Growth Curve
- Mechanism of Enzyme Action
- Noncompetitive and Competitive Inhibition
- Glycolysis
- Citric Acid Cycle
- Electron Transport Chain
- Fermentation
- Photosynthesis

- Bacterial DNA Replication
- Transcription
- Translation
- Mutations
- The Operon and Negative Control
- Conjugation
- Transduction
- Transformation
- Antimicrobial Drugs: Antibiotics and Resistance
- Virus Structure
- Virus Entry Methods
- Bacteriophage Replication: Lytic Cycle
- Bacteriophage Replication: Lysogenic Cycle

- Flu Virus Structure and Recombination
- Herpes Virus Replication Cycle
- HIV Virus and Replication
- Virulence
- Host Immune Defenses
- Humoral Immunity
- · Phagocytosis
- Inflammation
- Complement
- Interferon Action
- Antibody Function and Antigen Clearance
- · Cell-Mediated Immunity
- Type 1 Hypersensitivity

newly incorporated animations are in **bold**

Fundamentals of Microbiology

TENTH EDITION

INCLUDES NAVIGATE 2 ADVANTAGE ACCESS

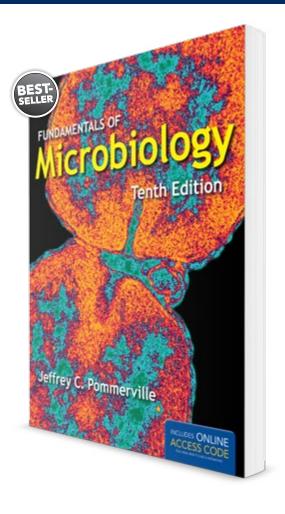
Jeffrey C. Pommerville,

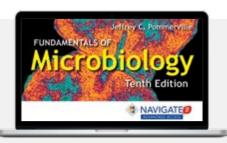
Glendale Community College

The Tenth Edition of the best-selling, award-winning classic text provides nursing and allied health students with a firm foundation in microbiology. Updated to reflect the Curriculum Guidelines for Undergraduate Microbiology as recommended by the American Society for Microbiology, the fully revised Tenth Edition includes all-new pedagogical features and the most current research data. This edition incorporates updates on infectious disease and the human microbiome, a revised discussion of the immune system, and an expanded Learning Design Concept feature that challenges students to develop critical-thinking skills.

KEY FEATURES

- Redesigned and updated figures and tables increase clarity and student understanding
- Includes new and revised critical-thinking exercises included in the end-of-chapter material
- Incorporates updated and new *MicroFocus* and *MicroInquiry* boxes, and *Textbook Cases*





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Navigate 2 Advantage Access unlocks a comprehensive and interactive eBook with embedded engaging animations, student practice activities and assessments, a full suite of instructor resources, and learning analytics reporting tools.



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Fundamentals of Microbiology

BODY SYSTEMS EDITION
THIRD EDITION

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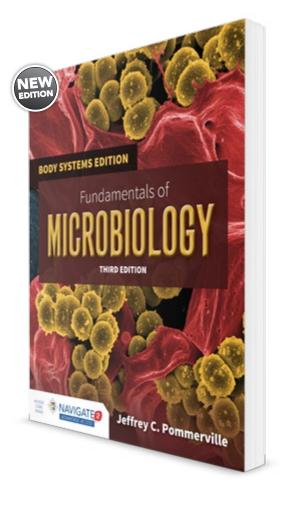
Jeffrey C. Pommerville, Glendale Community College

Intended for non-science majors, the fully revised and updated *Third Edition* of this best-selling text contains new pedagogical elements and an established learning design format that improves comprehension and retention. Unlike other texts in the field, this book takes a global perspective on microbiology and infectious disease. Furthermore, it includes real-life examples to help students understand the significance of a concept and its application in today's world.

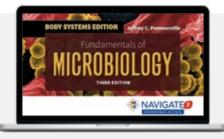
Comprehensive yet accessible, Fundamentals of Microbiology: Body Systems Edition, Third Edition is an essential text for non-science majors in health science and nursing programs taking an introductory microbiology course.

KEY FEATURES

- Updated content to reflect the *Curriculum Guidelines for Undergraduate Microbiology* as recommended by the American Society for Microbiology
- Redesigned format and art package help to simplify difficult concepts



 Added new information pertinent to nursing and health sciences while many figures and tables have been updated, revised, and/or reorganized for clarity



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Alcamo's Microbes and Society

FOURTH EDITION

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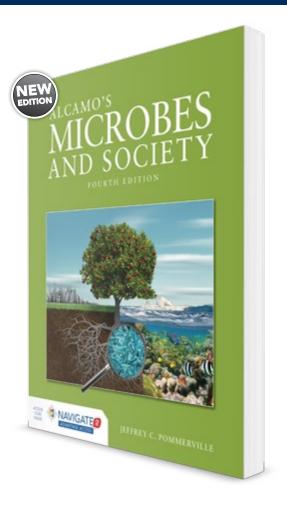
Jeffrey C. Pommerville,

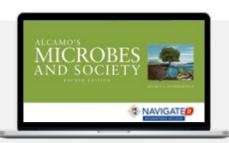
Glendale Community College

Perennial best-seller *Alcamo's Microbes and Society* is the ideal text for non-majors taking a foundational course in the life sciences. The *Fourth Edition* retains the user-friendly readability of previous editions while incorporating original features and material. It explores the function of microbes in ecological and environmental systems, as well as key current issues such as antibiotic resistance, the importance of vaccines, and emerging microbial diseases.

KFY FFATURES

- Includes information on current applications of genetic engineering and biotechnology
- Presents the latest information on microbes in agriculture and the environment, the human microbiome, and current, real-world applications of genetic engineering and biotechnology
- Includes pedagogical features to enhance clarity and retention, including A Closer Look, Looking Ahead boxes, and end-of chapter Questions to Consider





Navigate 2 Advantage Access

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http://go.jblearning.com/MicrobesandSociety4e

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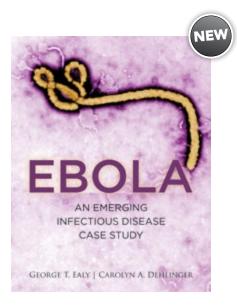
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Ebola

An Emerging Infectious Disease Case Study

George T. Ealy Carolyn A. Dehlinger

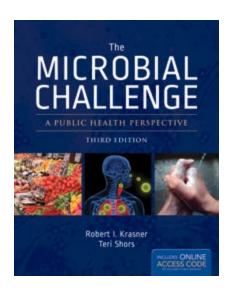
Both of Keiser University

This timely resource provides a firm foundation for academic discussions within microbiology, nursing, health science, and public health programs. Informative and unique, it presents Ebola as a case example that serves as the backbone for a wider discussion about infectious diseases. The history, biology, biotechnology, and epidemiology of the Ebola virus is presented, as well as the differing responses from international aid agencies, such as the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) in identifying and containing the recent outbreak.

ISBN: 978-1-284-08778-9

Paperback • 148 pages • © 2016

http://go.jblearning.com/EbolaBook



The Microbial Challenge

A Public Health Perspective
THIRD EDITION

Robert I. Krasner, Professor Emeritus, (late of) Providence College **Teri Shors**, University of Wisconsin, Oshkosh

The extensively revised and updated *Third Edition* focuses on human-microbe interactions and considers bacterial, viral, prion, protozoan, fungal, and helminthic (worm) diseases. It includes new and contemporary information on vaccinations, antibiotic resistant microbes, practical disinfection information, virotherapy and emerging diseases. New feature boxes showcase items of human interest such as big and bizarre viruses, probiotics, rats, and synthetic biology.

ISBN: 978-1-4496-7375-8 Paperback • 550 pages • © 2014

http://go.jblearning.com/MicroChallenge3e

Guide to Infectious Diseases by Body System

SECOND EDITION

Jeffrey C. Pommerville, Glendale Community College

ISBN: 978-1-4496-0591-9 Paperback • 33 pages • © 2012

Encounters in Microbiology

Jeffrey C. Pommerville,

Glendale Community College

Volume 1:

ISBN: 978-0-7637-5798-4

Paperback • 119 pages • © 2009

Volume 2:

ISBN: 978-0-7637-5799-1

Paperback • 91 pages • © 2009

Understanding Viruses

THIRD FDITION

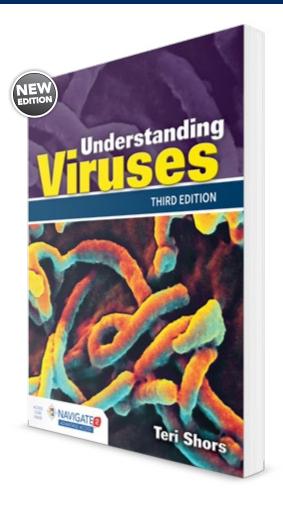
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Teri Shors, University of Wisconsin, Oshkosh

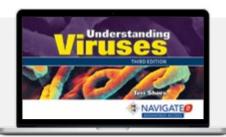
The third edition of the best-selling *Understanding Viruses* provides a strong, comprehensive introduction to human viral diseases. It provides a balanced approach to this fascinating discipline, combining the molecular, clinical, and historical aspects of virology making it the ideal text for undergraduate students majoring in biology, microbiology, medical technology, or pre-med. This edition includes updated information on influenza and plant viruses, additional molecular virology content, updated epidemiology statistics, and more.

KFY FFATURES

- Encourages application and critical thinking with real-life examples
- Combines molecular, clinical, and historical aspects of human viral diseases
- Contains NEW content on latest outbreaks, including MERS, Hantavirus in Yosemite National Park, and Measles cases in the U.S.
- Includes a NEW section on virus discovery in the 21st Century
- Newly created animations are available in the Navigate 2 eBook



 Features NEW Case Studies, including an in-depth case study of the 2014 Ebola virus outbreak



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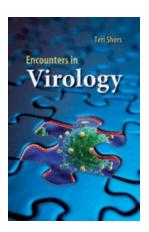


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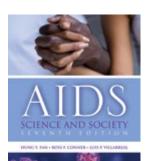
Encounters in Virology

Teri Shors, University of Wisconsin, Oshkosh

Encounters in Virology engages readers with 14 fascinating and thought-provoking case studies pulled from headline news. Each account describes an individual viral disease, along with the signs and symptoms that accompany it, and asks students to become medical detectives as they move along to identify and diagnose these potentially life-threatening viral diseases. This unique resource is an ideal supplement to any microbiology or virology course, as well as an entertaining and informative read.

ISBN: 978-0-7637-7349-6 • Paperback • 104 pages • © 2013

http://go.jblearning.com/Virology



AIDS

Science and Society
SEVENTH EDITION

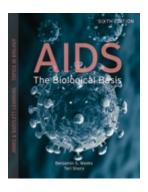
Hung Y. Fan Ross F. Conner Luis P. Villarreal

All of University of California, Irvine

The Seventh Edition of this best-selling text provides readers with a solid overview of AIDS from both a biomedical and a psychosocial perspective. It covers the molecular and cellular aspects of the virus and the immune system's response to it, and examines epidemiology and its role in understanding HIV and AIDS. The use of understandable vocabulary and clear illustrations, along with updated biomedical data and the most current statistics on AIDS available, makes AIDS: Science and Society an engaging resource for students, researchers, and general readers.



http://go.jblearning.com/AIDSsociety7e



AIDS

The Biological Basis SIXTH EDITION

Benjamin S. Weeks, Adelphi University **Teri Shors**, University of Wisconsin, Oshkosh

The Sixth Edition of this award-winning text continues to educate students about effectively controlling the spread of HIV and AIDS. Designed for non-science majors taking a special topics and/or general education course, the Sixth Edition is a comprehensive and accessible text that explores the history of AIDS and includes the latest information on HIV testing. It provides background material to help students understand the biological basis of this continuing pandemic.

ISBN: 978-1-4496-1488-1 • Paperback • 350 pages • © 2014

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Principles of Cell Biology

SECOND EDITION

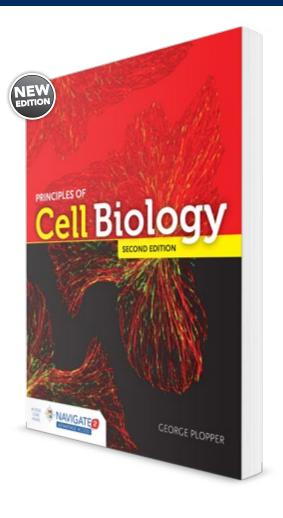
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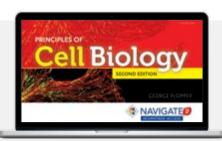
George Plopper, Senior Lead Associate/ Regulatory Scientist, Booz Allen Hamilton

Principles of Cell Biology, Second Edition provides students with the formula for understanding the fundamental concepts of cell biology. This practical text identifies 10 specific principles of cell biology and devotes a separate chapter to illustrate each. The result is a shift away from the traditional focus on technical details and toward a more integrative view of cellular activity. An informal, narrative writing style makes even the most complex concepts accessible to students new to the scientific field.

KEY FEATURES

- Breaks cell biology down into 10 easy-tounderstand principles
- Extensive use of art and imagery illuminates key concepts and cell function in a clear and accessible manner
- New, thought-provoking end-of-chapter questions assess students' retention of core concepts
- Concept Check questions at the end of each section test comprehension of the principle under discussion, with answers provided at the end of the chapter





Navigate 2 Advantage Access

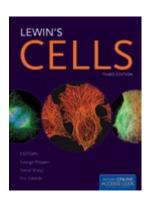
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Lewin's CELLS

THIRD EDITION

George Plopper, Senior Lead Associate/Regulatory Scientist, Booz Allen Hamilton

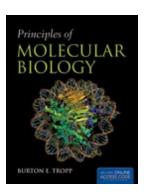
David Sharp, Albert Einstein School of Medicine

Erik Sikorski, University of Tampa

The ideal text for advanced undergraduate and graduate cell biology courses, the third edition of *Lewin's CELLS* continues to offer current coverage of the structure, organization, growth, regulation, movements, and interaction of cells, with an emphasis on eukaryotic cells. The *Third Edition* includes expanded chapters on nuclear structure and transport, chromatin and chromosomes, apoptosis, principles of cell signaling, the extracellular matrix and cell adhesion, plant cell biology, and more.

ISBN: 978-1-284-02939-0 • Hardcover • 1,056 pages • © 2015

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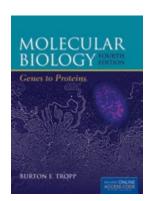
Principles of Molecular Biology

Burton E. Tropp, Queens College/CUNY

Written for the more concise course, this text is modeled after Burton Tropp's successful *Molecular Biology: Genes to Proteins* and is appropriate for the sophomore level course. After an introduction to molecular biology, an overview of protein structure and function is presented, and from there the text covers the various roles of technology in elucidating the central concepts of molecular biology, from both a historical and contemporary perspective.

ISBN: 978-1-4496- 8917-9 • Paperback • 752 pages • © 2014

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Molecular Biology

Genes to Proteins

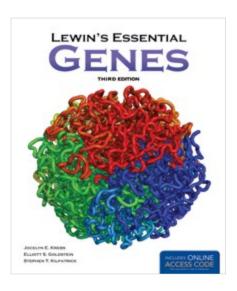
FOURTH EDITION

Burton E. Tropp, Queens College/CUNY

Newly revised and updated, the *Fourth Edition* is a comprehensive guide through the basic molecular processes and genetic phenomena of both prokaryotic and eukaryotic cells. Written for undergraduate and first-year graduate students within molecular biology or molecular genetics, the text incorporates a biochemical approach as well as a discovery approach that provides historical and experimental information within the context of the narrative.

ISBN: 978-1-4496-0091-4 • Hardcover • 1,100 pages • © 2012

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Lewin's Essential GENES

THIRD EDITION

Jocelyn E. Krebs, University of Alaska, Anchorage

Elliott S. Goldstein, Arizona State University **Stephen T. Kilpatrick**, University of Pittsburgh at Johnstown

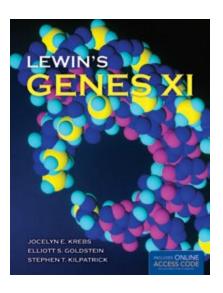
Lewin's Essential GENES, Third Edition provides students with a comprehensive overview of molecular biology and molecular genetics. The organization and chapter order have been modified to provide a more clear and student-friendly presentation of course material. Chapter material has been updated throughout, including a completely revised chapter on regulatory RNA. The Third Edition's exceptional pedagogy enhances student learning and helps readers understand and retain key material.

KEY FEATURES

- Completely revised chapter on regulatory RNA provides new information in this rapidly advancing field
- The four replication chapters have been completely reorganized and include new sections describing eukaryote cell cycle control of replication
- Concept and Reasoning Checks at the end of each chapter section ask students to pause and assess their understanding

ISBN: 978-1-4496-4479-6 Paperback • 850 pages • © 2013

http://go.jblearning.com/EssGenes



Lewin's GENES XI

Jocelyn E. Krebs, University of Alaska, Anchorage

Elliott S. Goldstein, Arizona State University **Stephen T. Kilpatrick**, University of Pittsburgh at Johnstown

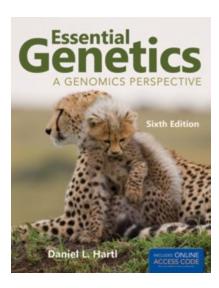
Lewin's GENES has long been the essential resource for providing the teaching community with the most modern presentation to this dynamic area of study. Lewin's GENES XI continues this tradition by introducing the most current data from the field, covering gene structure, sequencing, organization, and expression. It has enlisted a wealth of subject matter experts, from top institutions, to provide content updates and revisions in their individual areas of study. A reorganized chapter presentation provides a clear, more student-friendly introduction to course material than ever before.

KEY FEATURES

- Updated content throughout to keep pace with this fast-paced field
- Expanded coverage describing the connection between replication and the cell cycle is included, and presents eukaryotes as well as prokaryotes
- Available with interactive Molecular Biology Animations (ISBN: 978-1-4496-8877-6)

ISBN: 978-1-4496-5985-1 Hardcover • 940 pages • © 2014

http://go.jblearning.com/GENESXI



Essential Genetics

A Genomics Perspective SIXTH EDITION

Daniel L. Hartl, Harvard University

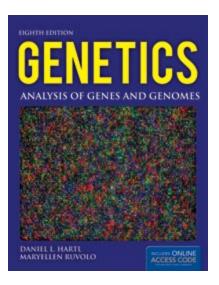
Designed for the shorter, less comprehensive course, the *Sixth Edition* presents carefully chosen topics that provide a solid foundation to the basic understanding of gene mutation, expression, and regulation. It goes on to discuss the development and progression of genetics as a field of study within a societal and historical context. The *Sixth Edition* includes new learning objectives within each chapter to help students identify what they should know as a result of their studying and highlights the skills they should acquire through various practice problems.

KEY FEATURES

- Each chapter includes several different types and levels of problems, including: concept, synthesis, and discussion questions, problemsolving questions, and application and analysis problems
- The topic of Human Evolutionary Genetics is integrated throughout
- An electronic Student Study Guide and Solutions Manual is available, containing chapter summaries, key terms, and extra study questions, as well as worked solutions for all Concepts in Action problems

ISBN: 978-1-4496-8688-8 Paperback • 574 pages • © 2014

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Genetics

Analysis of Genes and Genomes EIGHTH EDITION

Daniel L. Hartl Maryellen Ruvolo

Both of Harvard University

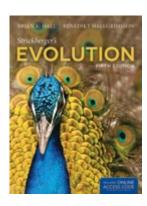
The updated *Eighth Edition* provides a clear, balanced, and comprehensive introduction to genetics and genomics. It continues to treat transmission genetics, molecular genetics, and evolutionary genetics as fully integrated subjects and provide students with an unprecedented understanding of the basic process of gene transmission, mutation, expression, and regulation. New chapter openers include a new section highlighting scientific competencies, while end-of-chapter *Guide to Problem-Solving* sections demonstrate the concepts needed to efficiently solve problems and understand the reasoning behind the correct answer.

KEY FEATURES

- Contains a new chapter on Human Evolutionary Genetics
- Includes new sections: Telomere Length Limits and Number of Cell Doublings, CNV with Reciprocal Risks of Autism and Schizophrenia, and Translation Proofreading and Premature Termination

ISBN: 978-1-4496-3596-1 Hardcover • 804 pages • © 2012

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Strickberger's Evolution

FIFTH EDITION

Brian K. Hall, Dalhousie University **Benedikt Hallgrímsson**, University of Calgary

Now with a new full-color design and art program, the fifth edition of *Strickberger's Evolution* is updated with the latest data and information from the field. The organization and chapter order have been modified to provide a more clear and student-friendly presentation of course material. The original scope and theme of this popular text remains, as it continues to present an overview of prevailing evidence and theories about evolution by discussing how the world and its organisms arose and changed over time.

ISBN: 978-1-4496-9192-9 • Hardcover • 646 pages • © 2014

http://go.jblearning.com/Evolution5e



Evolution

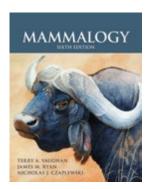
Principles and Processes

Brian K. Hall, Dalhousie University

Written for those with a minimal science background, *Evolution: Principles and Processes* provides a concise introduction of evolutionary topics for the 1-term course. Using an engaging writing style and a wealth of full-color illustrations, it covers topics from the origin of universe, Earth, the origin of life, to how humans influence the evolution of other species. This overview, coupled with numerous case studies and examples, helps readers understand and truly appreciate the origin and diversity of life.

ISBN: 978-0-7637-6039-7 • Paperback • 442 pages • © 2011

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Mammalogy

SIXTH EDITION

Terry A. Vaughan, Professor Emeritus, Northern Arizona University James M. Ryan, Hobart and William Smith Colleges Nicholas J. Czaplewski, University of Oklahoma

Thoroughly updated, the *Sixth Edition* explains and clarifies the subject as a unified whole. The text begins by defining mammals and summarizing their origins. It moves on to discuss the orders and families of mammals with comprehensive coverage on the fossil history, current distribution, morphological characteristics, and basic behavior and ecology of each family of mammals. The third part of the text progresses to discuss special topics such as mammalian echolocation, physiology, behavior, ecology, and zoogeography. The text concludes with two additional chapters, previously available online, that cover mammalian domestication and mammalian disease and zoonose.

ISBN: 978-1-284-03209-3 • Paperback • 756 pages • © 2015

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Botany

An Introduction to Plant Biology

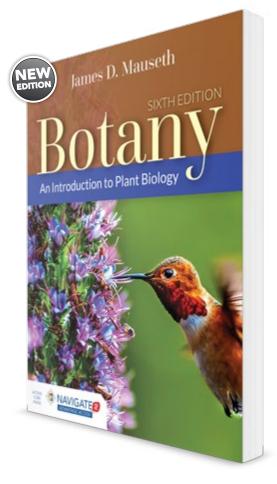
INCLUDES NAVIGATE 2 ADVANTAGE ACCESS

James D. Mauseth, University of Texas, Austin

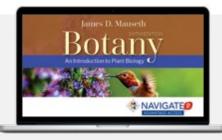
The stunning Sixth Edition includes the latest material on molecular biology, plant biotechnology, and the most recent coverage of taxonomy and phylogeny of plants, to keep students on the forefront of cutting-edge botanical research. New pedagogical features, including chapter opening learning objectives, Did You Know? boxes, At the Next Level boxes, and new and updated end-of-chapter criticalthinking questions, guide students' focus and assesses comprehension. The approachable writing style, quality anatomy coverage, solid scientific grounding, and visual appeal of the new text design and art package make Botany: An Introduction to Plant Biology, Sixth Edition the clear choice for students digging into this exciting science.

KEY FEATURES

- Features a NEW chapter to provide foundational information on botany, including climate ecology, adaptation, genes and genetics, and phylogeny of plants
- Includes two NEW chapters covering upto-date information on ethnobotany and community ecology
- Contains more photographs to aid visual learners in understanding complex topics and biological processes



- NEW Botany in Action animations educate and entertain
- Integrates more material on modern discoveries in genetics and molecular biology
- Includes additional coverage of seeds and seedlings, genome sciences, current transports (PIN), gene regulation, flowering, and more



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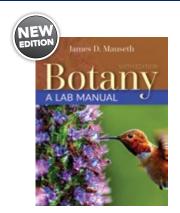
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PLANT BIOLOGY



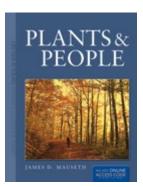
BotanyA Lab Manual SIXTH EDITION

James D. Mauseth, University of Texas, Austin

Botany: A Lab Manual, Sixth Edition is designed to provide students with a hands-on learning experience that will enhance their understanding of plant biology. It includes a detailed examination of plant structure, plant groups, genetics, classification, and other topics pertinent to understanding plants.

ISBN: 978-1-284-11184-2 • Spiral • 328 pages • © 2017

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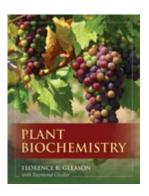
Plants & People

James D. Mauseth, University of Texas, Austin

Plants play a role in the environment, in food, beverage, and drug production, as well as human health. Written for the introductory, non-science major course, *Plants & People* outlines the practical, economical, and environmental aspects of plants' interactions with humans and the earth. It provides comprehensive coverage of plants in the environment—global warming, deforestation, biogeography—as well as the role plants play in food, fiber, and medicine.

ISBN: 978-1-4496-5717-8 • Paperback • 502 pages • © 2013

http://go.jblearning.com/Plants



Plant Biochemistry

Florence K. Gleason, University of Minnesota Raymond Chollet, University of Nebraska, Lincoln

Written for the upper-level undergraduate and graduate course, Plant Biochemistry provides a comprehensive, student-friendly introduction to this fascinating area of study. It opens with a discussion of perhaps the most important biochemical processes on the plant: photosynthesis and carbon fixation in plants. An introduction to carbohydrates, their usage and their storage, is followed by a discussion of primary cell wall structure and synthesis, as well as coverage of the metabolism of inorganic nutrients such as nitrogen and sulfur. To ensure full-student comprehension and retention, the text introduces basic metabolic pathways for the synthesis of lipids, steroids, and aromatic amino acids before discussing natural products such as lignin, flavonoids, and alkaloids.

ISBN: 978-0-7637-6401-2 • Paperback • 248 pages • © 2012

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Introduction to the Biology of Marine Life

ELEVENTH EDITION

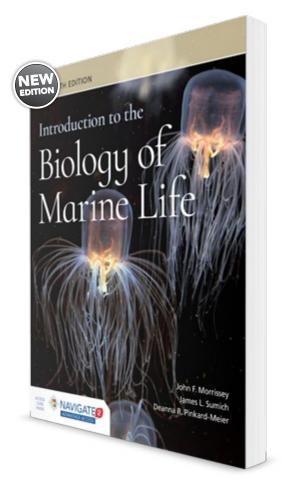
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John F. Morrissey, Sweet Briar College James L. Sumich, Grossmont College Deanna R. Pinkard-Meier, Grossmont College

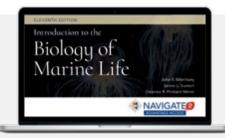
The *Eleventh Edition* continues to provide students with a clear and engaging introduction into the exciting world of marine organisms and the extraordinary environments in which they live. Building on the biological basics of selected groups of marine organisms, the text progresses to discuss the taxonomy, evolution, ecology, behavior, and physiology. Additional topics include the ocean as a habitat, patterns of associations, estuaries, coastal seas, coral reefs, the open sea, the deep sea floor, and harvesting living marine resources.

KEY FEATURES

- Conversational writing style is approachable to students who have no prior knowledge of marine biology
- Features two NEW chapters discussing The Polar Seas and The Ocean in Motion
- New Did You Know? boxes highlight a fascinating aspect of marine life, offering students information on contemporary events and discoveries
- Research in Progress boxes offer up-to-date statistics and modern examples of the current work and findings of marine biologists



 Includes a new case study feature in every chapter that highlights different types of marine organisms



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Laboratory and Field Investigations in Marine Life

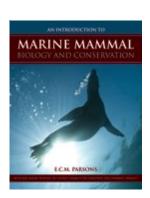
ELEVENTH EDITION

Virginia Dudley, Grossmont College Gordon Dudley, Grossmont College

The laboratory and field activities in this unique marine biology laboratory and field manual are designed to encourage students to develop their own powers of critical observation and analysis. They will benefit from a thorough examination of topics such as the physical and chemical properties of seawater, marine microbes, algae, and a wide variety of invertebrate and vertebrate animals through observation and critical-thinking activities. *Laboratory and Field Investigations in Marine Life, Eleventh Edition* is an ideal resource to accompany *Introduction to the Biology of Marine Life, Eleventh Edition* and can also be utilized as a standalone course resource.

ISBN: 978-1-284-09054-3 • Paperback • 224 pages • © 2017

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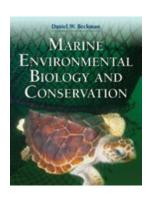
An Introduction to Marine Mammal Biology and Conservation

E. C. M. Parsons, George Mason University

This text provides a broad introduction to marine mammal biology using cutting edge information and student-friendly learning tools. It begins with chapters on the evolution and classification of marine mammals and their general biology and progresses to discuss the behavior and ecology of different groups of marine mammals, such as polar bears, otters, and cetaceans. Part 3 dives into many different conservation issues facing marine mammals, as well as discussions on how they can be addressed.

ISBN: 978-0-7637-8344-0 • Paperback • 350 pages • © 2013

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Marine Environmental Biology and Conservation

Daniel W. Beckman, Missouri State University

This text provides an introduction to the environmental and anthropogenic threats facing the world's oceans, and outlines the steps that can and should be taken to protect these vital habitats. It begins with a brief overview of the essentials of marine biology and oceanography necessary to understand the conservation material. It then progresses through the different habitats in the marine environment, such as coastal ecosystems, the open ocean, and the deep sea, exploring the organisms that live there, and what conservation dangers and solutions affect these areas.

ISBN: 978-0-7637-7350-2 • Paperback • 452 pages • © 2013

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Molecular Biotechnology

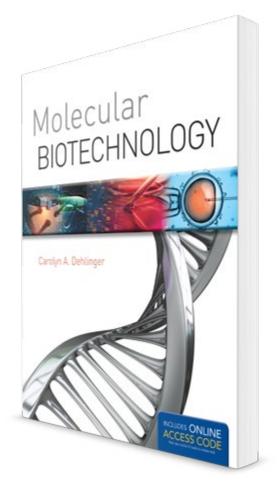
Carolyn A. Dehlinger, Keiser University

The only textbook of its kind on the market, Molecular Biotechnology provides a holistic, comprehensive view of molecular biotechnology that makes it ideally suited for undergraduate majors in molecular biotechnology and biomedical sciences. Beginning with the background of this rapidly expanding field, the text covers major discoveries, regulation of the biotechnology industry, and significant innovations. A strong emphasis on careers in molecular biotechnology, profiles of major projects and researchers, and expansive discussions of bioethical concerns and current research, all come together to make this text an engaging and highly relevant resource for biotechnology students.

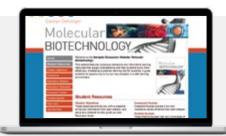
Review a Sample Animation and Lab Exercise at: http://go.jblearning.com/MolecularBiotechnology

KEY FEATURES

- Focus on Careers feature in every chapter provides critical information on the type of education and competencies required to practice in this exciting field
- Contains coverage of food labeling laws throughout the United States as well as coverage of the U.S. Supreme Court ruling on gene patenting



 Includes evolutionary developmental biology ("evo devo") coverage throughout



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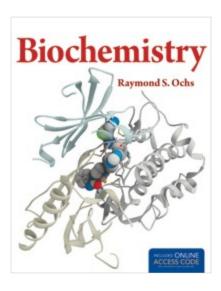
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Every new print copy of the text includes access to the Navigate Companion Website, featuring:

- Full-color **Animations** that bring key concepts to life
- Lab Exercises for students to apply knowledge and gain practical lab skills
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Biochemistry

Raymond S. Ochs, St. John's University

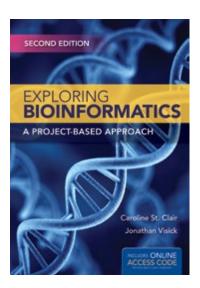
Biochemistry is a single-semester text designed for undergraduate non-biochemistry majors. Accessible, engaging, and informative, Biochemistry is the perfect introduction to the subject for students who may approach chemistry with apprehension. Biochemistry's unique emphasis on metabolism and its kinetic underpinnings gives the text up-to-the-minute relevance for students investigating current public health concerns such as obesity and diabetes. Biochemistry will encourage students to explore the basics of chemistry and its influence on biological problems.

KEY FEATURES

- Introductory material at the beginning of each chapter that contextualizes chapter themes in real-life scenarios
- Vocabulary terms defined at the end of each chapter as well as in a comprehensive glossary
- Synthesis questions at the end of each chapter encourage students to make connections between concepts and ideas, as well as develop critical-thinking skills
- Online supporting materials with further opportunities for research and investigation

ISBN: 978-1-4496-6137-3 Hardcover • 414 pages • © 2014

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Exploring Bioinformatics

A Project-Based Approach
SECOND EDITION

Caroline St. Clair Jonathan E. Visick

Both of North Central College

The updated Second Edition is intended for an introductory course in bioinformatics at the undergraduate level. Through hands-on projects, students are introduced to current biological problems and explore and develop bioinformatics solutions to these issues. Each chapter presents a key problem, provides basic biological concepts, introduces computational techniques to address the problem, and guides students through the use of existing web-based tools and software solutions. This progression prepares students to tackle the On-Your-Own Project, where they develop their own software solutions.

KEY FEATURES

- Offers a flexible approach to understanding key bioinformatics algorithms with exercises that can be used with or without programming
- Includes more substantive web-based projects for a more comprehensive, hands-on introduction to bioinformatics
- Contains updated material reflecting changes in how bioinformatics is used: nextgeneration sequencing, metagenomic analysis, statistical methods, and more

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