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STUDENT & EDUCATOR RESOURCES

For the Student—

To help meet the needs of today’s tech-savvy students, we have created new interactive and engaging online learning resources. Look for Student Resources listed under specific titles to see the range of options available.

Student Resources:

AN = Animations
CW = Companion Website
EB = Navigate eBook
FL = Interactive Flashcards
IG = Interactive Glossary
LE = Lab Exercises
LM = Lab Manual
LO = Lecture Outlines
NV = Navigate
PA = Practice Activities

For the Educator—

Many of our core textbooks are accompanied by print and online resources that support and enhance the teaching process. Look for Instructor Resources listed under specific titles to see the range of options available.

Instructor Resources:

AE = Answers to the Exercises
AN = Animations
CQ = Interactive Chapter Quizzes
DQ = Discussion Questions
IB = Image Bank
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LE = Lab Exercises
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LO = Lecture Outlines
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SCIENTIFIC LITERACY AND HUMAN BIOLOGY

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. Furthermore, it exposes readers to research methods, science philosophy, critical thinking strategies, mathematics, and history, and urges them to question data and think scientifically.

KEY FEATURES
• End-of-chapter review questions creatively stimulate discussion and span all levels of Bloom’s taxonomy
• Questions stimulate debate and discussion and cover science philosophy, history, mathematics, education, research methods, and critical thinking strategies
• Provides models of reasoning and guidelines

Paperback • 264 pages • © 2014
Instructor Resources: PP, TB
Learn More at: go.jblearning.com/ScienceandSociety

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
• Features a reorganized chapter layout so content on the circulatory system and blood are presented before the chapter on nutrition and digestion
• New topics include primary cilia, hormonal control of hunger, effective treatments for insomnia, use of organs from pigs to repair damaged organs, health benefits of omega-3 fatty acids, new information on HIV infections, genetic determination of sex, natural killer cells, and many more!
• Available with Navigate Human Biology (978-1-284-03791-3), an easy-to-use and fully customizable online learning platform including the complete and interactive eBook

Paperback • 598 pages • © 2015
Instructor Resources: IB, IM, NV, PP, TB
Student Resources: CW, EB, NV, SG
Learn More at: go.jblearning.com/HumanBio8e
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.

Learn More at: 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.

Learn More at: go.jblearning.com/Braude

Human Anatomy and Physiology Coloring Workbook and Study Guide
THIRD EDITION
Paul D. Anderson, Middlesex Community College

This valuable student resource is designed to help students learn introductory anatomy and physiology and is organized to complement the leading texts in the field.

Learn More at: go.jblearning.com/APworkbook
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.

Paperback • 294 pages • © 2015

Instructor Resources: AE, IB, NV, PP, TB
Student Resources: CW, EB, NV

Learn More at: go.jblearning.com/HumanPhysiology

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 pre-requisite.

Paperback • 520 pages • © 2016

Instructor Resources: NV: CQ, DQ, IB, LO, PP, SA, TB
Student Resources: NV: EB, FL, IG, LO, PA

Learn More at: go.jblearning.com/Moini2e

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 text book, the Navigate eBook offers students an affordable and interactive alternative.


Learn More at: go.jblearning.com/HumanPhysEbook
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KEY FEATURES

- Includes 20 NEW interactive animations!
- Narrated exercises fully engage students in the learning process
- Brings key microbiology concepts to life through dynamic, interactive exercises
- 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
- 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:

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- **Gram Staining**
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- **Membrane Structure and Transport**
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- **Binary Fission**
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- **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**
- **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**
Fundamentals of Microbiology
TENTH EDITION

AVAILABLE WITH NAVIGATE 2 ADVANTAGE ACCESS

Jeffrey C. Pommerville, Glendale Community College

The tenth edition of the best-selling, award-winning classic text Fundamentals of Microbiology 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.

Alcamo’s Laboratory Fundamentals of Microbiology
TENTH EDITION

Jeffrey C. Pommerville, Glendale Community College

This popular lab manual offers thirty-four multi-part lab exercises designed to provide students with basic training in the handling of microorganisms, while exploring microbial properties and uses. This lab manual can also be used independently of the main text.

KEY FEATURES

• New Investigating the Microbial World feature in each chapter encourages students to participate in the scientific investigation process and challenges them to apply the process of science and quantitative reasoning through related actual experiments

• 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

Instructor Resources: AN, IB, IM, NV, PP, TB
Student Resources: AN, CW, LM, NV, SG
Learn More at go.jblearning.com/FOM10e

Instructor Resources: AN, IB, IM
Student Resources: AN, CW, LM, NV, SG
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Alcamo’s Microbes and Society
FOURTH EDITION

INCLUDES NAVIGATE 2 ADVANTAGE ACCESS

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.

**KEY FEATURES**

- 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

Paperback • 474 pages • © 2016

Instructor Resources: NV: AN, CQ, DQ, IB, LO, PP, SA, TB
Student Resources: NV: AN, EB, FL, IG, LO, PA

Learn More at: go.jblearning.com/MicrobesandSociety4e

Fundamentals of Microbiology
BODY SYSTEMS EDITION, THIRD EDITION

INCLUDES NAVIGATE 2 ADVANTAGE ACCESS

Jeffrey C. Pommerville, Glendale Community College

Intended for non-science majors, the fully revised and updated third edition of this bestselling 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.

**KEY FEATURES**

- Updated to reflect the *Curriculum Guidelines for Undergraduate Microbiology* as recommended by the American Society for Microbiology
- A redesigned format and art package help to simplify difficult concepts
- New information pertinent to nursing and health sciences has been added, while many figures and tables have been updated, revised, and/or reorganized for clarity

Hardcover • 984 pages • © 2016

Instructor Resources: NV: AN, CQ, DQ, IB, LO, PP, SA, TB
Student Resources: NV: AN, EB, FL, IG, LO, PA

Learn More at: go.jblearning.com/FOMBS3e
The Microbial Challenge
A Public Health Perspective
THIRD EDITION

Robert I. Krasner, Professor Emeritus, Providence College
Teri Shors, University of Wisconsin, Oshkosh

The Third Edition has been extensively revised and updated with the latest data in a fast-paced field. It focuses on human-microbe interactions and considers bacterial, viral, prion, protozoan, fungal and helminthic (worm) diseases. The Third Edition 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.

Instructor Resources: AE, IB, PP, TB
Student Resources: CW
Learn More at: go.jblearning.com/MicroChallenge2e

Guide to Infectious Diseases by Body System
SECOND EDITION

Jeffrey C. Pommerville, Glendale Community College

The ideal accompaniment to any microbiology, virology, human biology and allied health course, this guide is a mini atlas of microbial diseases afflicting humans. Organized by body system, each unit presents a brief introduction to the anatomical system and the bacterial, viral, fungal, or parasitic organisms infecting the system. Full-color anatomical illustrations are labeled with the diseases’ signs and symptoms

Learn More at: go.jblearning.com/GIDBS

Encounters in Microbiology

Jeffrey C. Pommerville, Glendale Community College

In these two 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.

Volume 1, Second Edition

Volume 2
Understanding Viruses
THIRD EDITION
Teri Shors, University of Wisconsin, Oshkosh

The ideal text for undergraduate students majoring in biology, microbiology, medical technology, or pre-med, the highly anticipated third edition of *Understanding Viruses* continues to provide a balanced approach to this fascinating discipline, combining the molecular, clinical, and historical aspects of virology. Updated with the latest information from this fast-paced field, it provides a strong, comprehensive introduction to human viral diseases. Contemporary case studies, *Refresher* Boxes, and *Virus Files* engage students in the learning process. *Understanding Viruses* is an accessible, exciting, and engaging text for virology courses.

**KEY FEATURES**

- Provides a full-color design and rich pedagogy to help students understand and retain key concepts
- Combines molecular, clinical, and historical aspects of virology
- Contemporary case studies and questions discuss real-world scenarios and enhance student learning
- Includes an introductory chapter on the history of medicine, clinical trials, xenotransplantation, and gene therapy
- *Virus File* boxes connect a virus chapter topics to research or virology techniques currently being done or utilized in the field
- *Refresher* boxes assist students who may need to brush up on biological concepts introduced in introductory biology courses


Instructor Resources: AN, IB, NV, PP, TB
Student Resources: AN, NV

Learn More at: go.jblearning.com/Shors3e

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. An ideal supplement to any microbiology or virology course, as well as an entertaining and informative read, *Encounters in Virology* is sure to bring these realistic medical tales to life as readers race against time to solve these medical mysteries.

AIDS

Science and Society

SEVENTH EDITION

Hung Y. Fan, Ross F. Conner, and 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.

Instructor Resources: IB, PP, TB
Student Resources: CW
Learn More at: go.jblearning.com/AIDSSociety7e

AIDS

The Biological Basis

SIXTH EDITION

Benjamin 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, AIDS: The Biological Basis, 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.

Instructor Resources: IB, PP, TB
Learn More at: go.jblearning.com/AIDS6e

How Pathogenic Viruses Think

Making Sense of Virology

SECOND EDITION

Lauren Sompayrac, University of Colorado, Boulder

How Pathogenic Viruses Think covers the essential elements of virus-host interactions with descriptive graphics, helpful mnemonic tactics for retaining the information, and brief reviews of important concepts. It is an ideal book to help medical, science, and nursing students make sense of this complex subject.

Learn More at: go.jblearning.com/PathogenicViruses

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Genetics
Analysis of Genes and Genomes
EIGHTH EDITION
Daniel L. Hartl, Harvard University
Maryellen Ruvolo, 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 section, Telomere Length Limits and Number of CellDoublings
• Contains new sections; CNV with Reciprocal Risks of Autism and Schizophrenia, and Translation Proofreading and Premature Termination

Hardcover • 804 pages • © 2012
Instructor Resources: AE, IB, NV, PP, TB
Student Resources: CW, EB, NV, SG
Learn More at: go.jblearning.com/Hartl8

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, problem solving 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.

Paperback • 574 pages • © 2014
Instructor Resources: IB, NV, PP, TB
Student Resources: CW, EB, NV, SG
Learn More at: go.jblearning.com/EssGenetics6e

Learn More at: go.jblearning.com/EssGenetics6e
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. New boxed features concentrating on modern and exciting research in the field are included throughout the text.

KEY FEATURES

• New Full color design and art program
• Maintains the student-friendly engaging writing-style for which it is known
• A reorganized chapter order provides a more clear and accessible presentation of course material
• Chapters on the evolution of biodiversity are now found on the text’s website
• New boxed features highlight new and exciting research in the field

Hardcover • 646 pages • © 2014

Instructor Resources: IB, IM, PP, TB
Student Resources: CW

Learn More at: 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 one-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.

KEY FEATURES

• Includes three chapters devoted to Charles Darwin: Darwin’s life and work, Darwin and Wallace as co-discoverers of evolution by natural selection, Darwin and theories of inheritance
• Central principles and processes are highlighted in the text
• Includes extensive cross-referencing in the glossary so that related topics can be followed up and explored

Paperback • 442 pages • © 2011

Instructor Resources: IB, PP, TB
Student Resources: CW

Learn More at: go.jblearning.com/Hall

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Principles of Cell Biology
SECOND EDITION

INCLUDES NAVIGATE 2 ADVANTAGE ACCESS

George Plopper, Rensselaer Polytechnic Institute

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 towards 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
• 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

Paperback • 566 pages • © 2015
Instructor Resources: NV: AN, CQ, DQ, IB, LO, PP, SA, TB
Student Resources: NV: AN, EB, FL, IG, LO, PA
Learn More at: go.jblearning.com/CellBiology2e

Lewin’s CELLS
THIRD EDITION

George Plopper, Rensselaer Polytechnic Institute
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. Revised and updated to reflect the most recent research in cell biology, 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. All-new design features and a chapter-by-chapter emphasis on key concepts enhance pedagogy and emphasize retention and application of new skills.

Thorough, accessible, and essential, Lewin’s CELLS, Third Edition, turns a new and sharper lens on the fundamental units of life

KEY FEATURES
• Contains design features specifically intended to enhance pedagogy, including Key Concepts, What’s Next?, and Concept and Reasoning Checks
• Features new, more student-friendly illustrations

Hardcover • 1056 pages • © 2015
Instructor Resources: IB, PP, TB
Student Resources: CW
Learn More at: go.jblearning.com/CELLS3e
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.

**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.

**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.

**Molecular Biology Animations**

Enhance Student Understanding with Interactive Molecular Biology Animations!

Appropriate for use with any Jones & Bartlett Learning Molecular Biology text, the *Molecular Biology Animations* bring fascinating molecular biology concepts to life with a collection of vivid, interactive animations with assessment activities built-in. Animations include:

- Eukaryotic Translation
- Purification of mRNA
- Okazaki Fragment Maturation
- And more!

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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

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

Paperback • 850 pages • © 2013
Instructor Resources: AE, AN, IB, NV, PP, TB
Student Resources: AN, CW, EB, NV
Learn More at: 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 the interactive Molecular Biology Animations

Hardcover • 940 pages • © 2014
Instructor Resources: AN, IB, NV, PP, TB
Student Resources: AN, CW, EB, NV
Learn More at: go.jblearning.com/GENESXI
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, Molecular Biotechnology 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.

The text's focus on the emergence of biotechnology as both a scientific discipline and a viable industry, the regulations associated with the pursuit of biotechnology, and the major techniques and applications of this branch of science will establish Molecular Biotechnology as an essential text for students entering the field.

KEY FEATURES

- **Focus on Careers** feature in every chapter provides critical information on type of education and competencies required to practice in this exciting field as well as relevant organizations to contact
- Includes evolutionary developmental biology, “evo devo”, coverage throughout
- Contains coverage of food labeling laws throughout the US as well as coverage of the US Supreme Court ruling on gene patenting
- Real-world information on molecular techniques, regulations, and bioethics offer students a big picture understanding of working in the biotechnology industry
- Provides a holistic bottom-up approach that mirrors the levels of Bloom’s Taxonomy to encourage students to develop higher levels of knowledge and understanding

Navigate Companion Website

Every new print copy of the text includes access to the Navigate Companion Website where students will find a wealth of learning and study tools to help them succeed in their biotechnology course, including:

- Full-color Animations that bring key concepts to life!
- Lab Exercises for students to apply knowledge and gain practical lab skills
- Practice Quizzes for reviewing key concepts, organized by chapter
- Chapter Objectives, Interactive Glossary and Flashcards, Crossword Puzzles, and Web Links


Student Resources: AN, CW, LE

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

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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

Hardcover • 414 pages • © 2014
 loosen access code

Learn More at: go.jblearning.com/Biochemistry

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: next-generation sequencing, metagenomic analysis, statistical methods, etc.

Paperback • 300 pages • © 2015
 loosen access code

Learn More at: go.jblearning.com/Bioinformatics2e
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.

KEY FEATURES
• Presents a more thorough use of phylogenetically-based mammalian relationships to reflect the recent extraordinary activity in mammalian biology
• Includes new thought-provoking boxes throughout to illuminate current mammalian topics, including platypus electrorception, the origin of Eutherians, terrestrial pollination syndrome, Echidna reproductive anatomy, and many more

Paperback • 756 pages • © 2015
Instructor Resources: DQ, IB, PP

Learn More at: go.jblearning.com/Mammalogy6e

An Introduction to Zoology
Investigating the Animal World
Joseph Springer
Dennis Holley

Written for the one-term, undergraduate course, An Introduction to Zoology: Investigating the Animal World provides students with an accessible and engaging look at the fundamentals of zoology. This student-friendly text is driven by the underlying concepts of zoology rather than the memorization of terminology from the field. The authors write in a style students can relate to as to not overwhelm them with encyclopedic passages. They provide Connects sections at the end of each chapter which discuss how the animals in the chapter connect to students from an economic, ecologic, medical, and cultural perspective, to emphasize how the animal world and the human realm are intimately intertwined.

KEY FEATURES
• Student-friendly, accessible writing style
• Connects sections detail how animals in the chapter connect to the students economically, ecologically, medically, and culturally
• End-of-chapter questions include many creative and critical thinking questions that challenge and engage students

Hardcover • 614 pages • © 2013
Instructor Resources: AE, IB, PP, TB
Student Resources: CW

Learn More at: go.jblearning.com/Zoology

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Introduction to the Biology of Marine Life
TENTH EDITION
John Morrissey, Sweet Briar College
James L. Sumich, Grossmont College

The tenth edition of this classic text provides a clear and engaging introduction into the exciting world of marine organisms and the extraordinary environments in which they live. It discusses the taxonomy, evolution, ecology, behavior, and physiology of selected groups of marine organisms. The Tenth Edition also includes the most recent coverage of breakthroughs in research and technology, and maintains the accessible, student-friendly style for which it is known. A Laboratory Manual (ISBN-13: 978-1-4496-0501-8) is available to further engage students in the excitement and challenges of understanding marine organisms in their environment.

Instructor Resources: AN, IB, IM, NV, PP, TB
Student Resources: CW, LM

Learn More at: go.jblearning.com/Morrissey

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.

Instructor Resources: IB

Learn More at: go.jblearning.com/Parsons

Marine Environmental Biology and Conservation
Daniel 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.

Instructor Resources: IB

Learn More at: go.jblearning.com/Beckman
The updated and revised Fifth Edition provides a modern and comprehensive overview of the fundamentals of botany while retaining the important focus of natural selection, analysis of botanical phenomena, and diversity. Students are first introduced to topics that should be most familiar (plant structure), proceed to those less familiar (plant physiology and development), and conclude with topics that are likely least familiar to the introductory student (genetics, evolution, and ecology). The text provides the latest material on molecular biology and plant biotechnology to keep pace with these advancing areas of study. All sections are written to be self-contained, allowing for a flexible presentation of course material.

**KEY FEATURES**

- Includes new content on molecular biology, plant biotechnology, and the most recent coverage of taxonomy and phylogeny of plants.
- *Plants Do Things Differently* boxes help students understand and compare plant biology with human biology.
- End-of-chapter study guide includes nearly 50 or more questions in each chapter, urging students to test themselves on the most important points in the chapter.
- Now available with a new electronic laboratory manual.

**Botany**

*An Introduction to Plant Biology*  
FIFTH EDITION  

James D. Mauseth, University of Texas, Austin


Instructor Resources: AE, IB  
Student Resources: CW, EB, LM, NV

Learn More at: go.jblearning.com/Botany5e

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**Botany**

*A Lab Manual*  

Stacy Pfluger, Angelina College

*Botany: A Lab Manual* 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. In addition, this manual includes added labs that move beyond the standard plant anatomy and plant group exercises and are incorporated into all botany laboratory sections. This additional content enables instructors to customize their instruction by choosing those labs that best match the emphasis in their individual course.


Instructor Resources: AE, IB

Learn More at: go.jblearning.com/BotanyLab
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.

**KEY FEATURES**

- Written in a conversational style that is accessible to non-science majors
- Botanical phenomena, such as annuals vs. perennials, or herbaceous plants vs. woody, are illustrated with plants familiar to most students
- Each chapter discusses terms of critical global issues such as climate change, deforestation, pollution, and more
- Where appropriate, plant and human biology are compared

Paperback • 502 pages • © 2013

Instructor Resources: IB, NV, PP, TB
Student Resources: CW

Learn More at: go.jblearning.com/Plants

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Plant Biochemistry

Florence 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.

**KEY FEATURES**

- Offers a student-friendly, accessible, and simplified introduction to plant biochemistry
- A complete ancillary package provides the pedagogical tools essential for student learning
- Covers the latest findings in the field

Paperback • 248 pages • © 2012

Instructor Resources: PP

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