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We believe learning opens up opportunities, creates fulfilling careers and hence better lives. We hence collaborate with the best of minds to deliver you class-leading products, spread across the Higher Education and K12 spectrum.

Superior learning experience and improved outcomes are at the heart of everything we do. This product is the result of one such effort.

Your feedback plays a critical role in the evolution of our products and you can contact us – reachus@pearson.com. We look forward to it.



Bioscience and Geology

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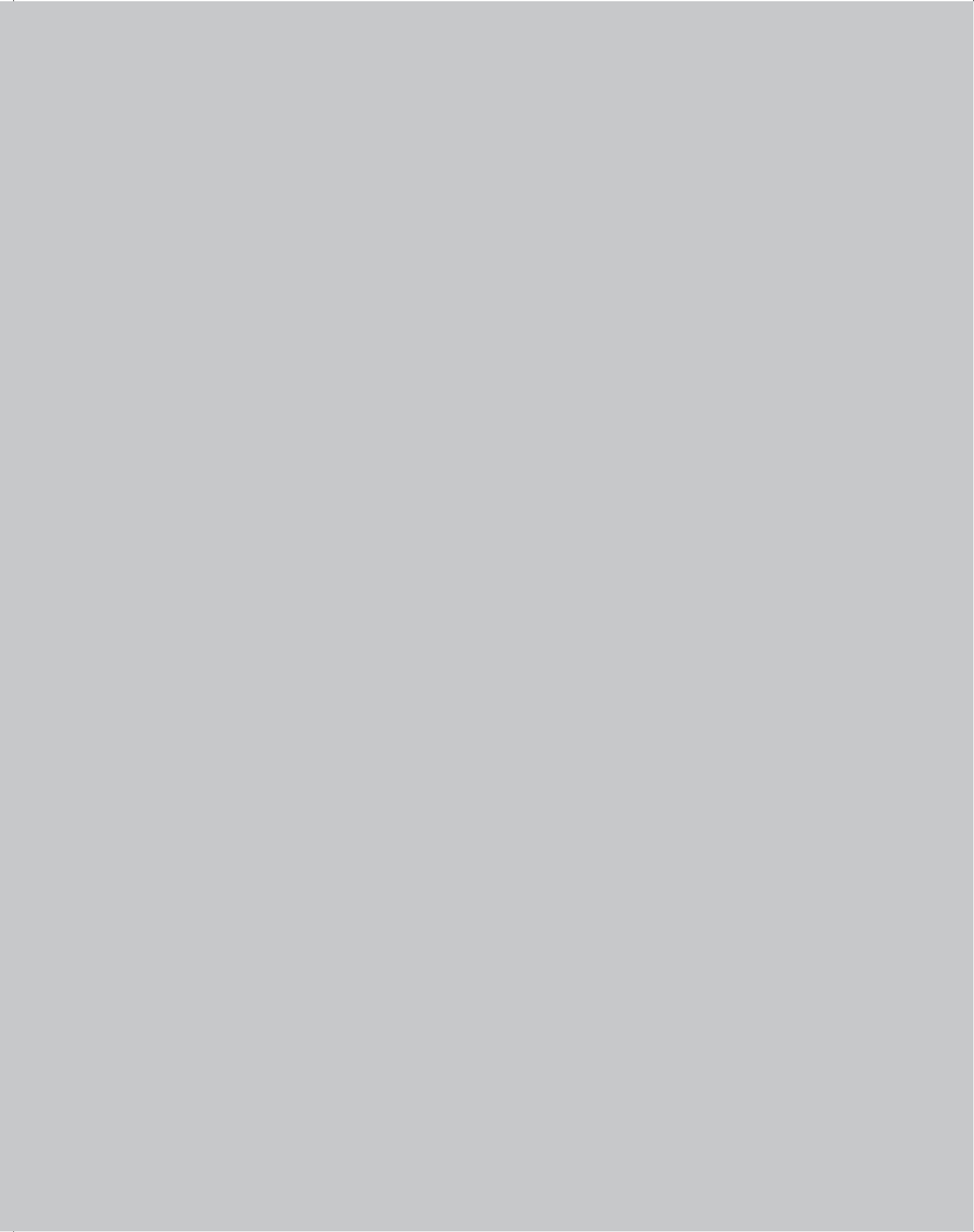
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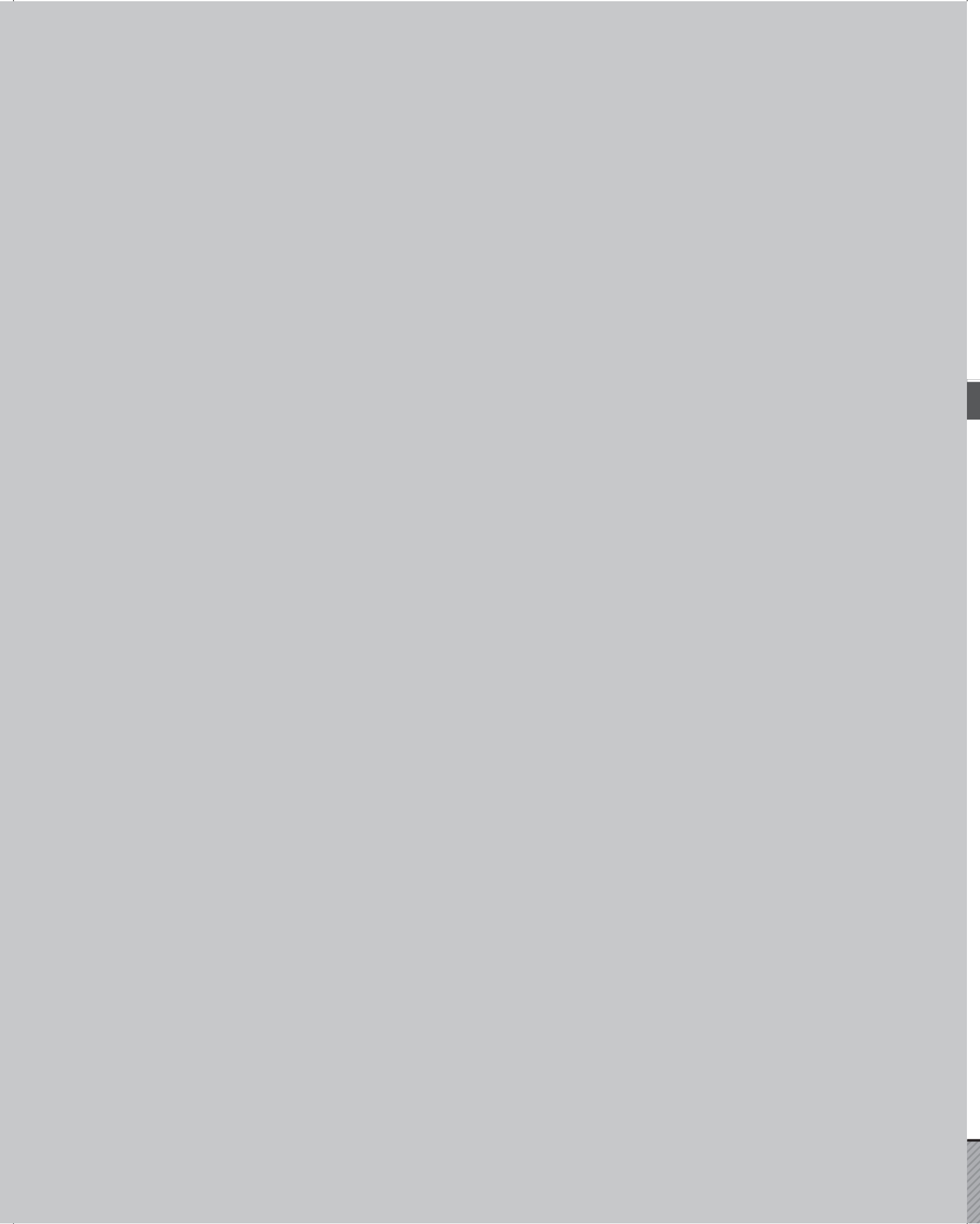
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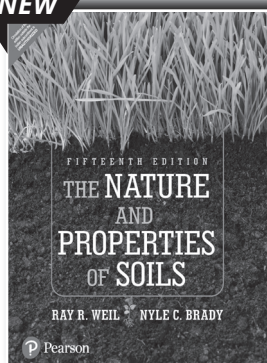


Agriculture



The Nature and Properties of Soils, 15/e

NEW



ISBN: 9789356062719



Raymond R. Weil | Nyle C. Brady



1172 | © 2022

ABOUT THE BOOK

The Nature and Properties of Soils is designed to engage today's students with the latest in the world of soils. This hallmark text introduces students to the exciting world of soils through clear writing, strong pedagogy, and an ecological approach that effectively explains the fundamentals of soil science. Worked calculations, vignettes, and current real-world applications prepare readers to understand concepts, solve problems, and think critically. Written for both majors and non-majors, this text highlights the many interactions between the soil and other components of forest, range, agricultural, wetland and constructed ecosystems.

FEATURES

- A comprehensive approach to soils with a focus on six major ecological roles of soil including growth of plants, climate change, recycling function, biodiversity, water, and soil properties and behavior.
- Updated with the latest advances, concepts, and applications including hundreds of key references.
- New coverage of cutting-edge soil science. Examples include coverage of the pedosphere concept, new insights into humus and soil carbon accumulation, subaqueous soils, soil effects on human health, principles and practice of organic farming, urban and human engineered soils, new understandings of the nitrogen cycle, water-saving irrigation techniques, hydraulic redistribution, soil food-web ecology, disease suppressive soils, soil microbial genomics, soil interactions with global climate change, digital soil maps, and many others
- New applications boxes and case study vignettes. A total of 10 new application and case study boxes bring important soils topics to life.

CONTENTS

- | | |
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| 1. The Soils Around Us | 11. Organisms and Ecology of the Soil |
| 2. Formation of Soils from Parent Materials | 12. Soil Organic Matter |
| 3. Soil Classification | 13. Nitrogen and Sulfur Economy of Soils |
| 4. Soil Architecture and Physical Properties | 14. Soil Phosphorus and Potassium |
| 5. Soil Water: Characteristics and Behavior | 15. Calcium, Magnesium, Silicon, and Trace Elements |
| 6. Soil and the Hydrologic Cycle | 16. Practical Nutrient Management |
| 7. Soil Aeration and Temperature | 17. Soil Erosion and Its Control |
| 8. The Colloidal Fraction: Seat of Soil Chemical and Physical Activity | 18. Soils and Chemical Pollution |
| 9. Soil Acidity | 19. Geographic Soils Information |
| 10. Soils of Dry Regions: Alkalinity, Salinity, and Sodicty | 20. Prospects for Soil Health in the Anthropocene |

ABOUT THE AUTHOR

Raymond R. Weil, University of Maryland

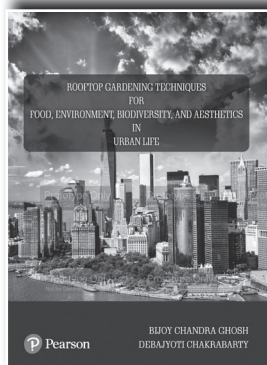
Rooftop Gardening Techniques for Food, Environment, Biodiversity and Aesthetics in Urban Life



Bijoy Chandra Ghosh | Debajyoti Chakrabarty



176 | © 2022



ISBN: 9789356065161

ABOUT THE BOOK

Rooftop Gardening Techniques for Food, Environment, Biodiversity and Aesthetics in Urban – This book covers how to organically recycle waste, vermicomposting techniques, crop production, polytunnel and greenhouse construction and control irrigation technology. The detailed information on cultivation, nutrition, propagation, and multiplication of various types of plants are also covered. The advantages of rooftop gardening on education, the environment, biodiversity, and aesthetics are elaborated on. This book is intended to be a guide and can be of much use to city dwellers and home gardeners (especially those with ample free time), and hope

it is of much assistance. Organic vegetation, usually rare in urban markets, can now be grown easily on a rooftop. The rooftops of both private and public buildings, hospitals, retail outlets and office buildings can be bought for the purpose of rooftop gardening. This book is dedicated to the subject, so that we can easily and cost-effectively create more green roofs in urban areas

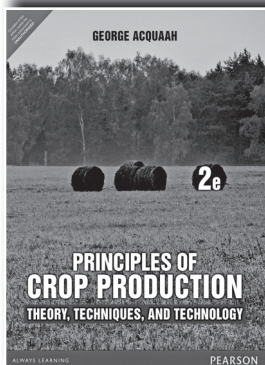
CONTENTS

1. Introduction
2. Types of Green Roof and Structural Design
3. Principle of Crop Production in Rooftop Cultivation
4. Rooftop Gardening Techniques Involved in Crop Production
5. Components and Activities of Rooftop gardening
6. Organic Crop Production on Roof Top
7. Plants Suited to Rooftop Garden Environments
8. Case Studies

ABOUT THE AUTHOR

Mr. Bijoy Chandra Ghosh is a retired professor from Indian Institute of Technology, Kharagpur, with a long career of research in the academic field of agriculture. The rooftop gardening book reflects on his own contributions and experiences. Professor. Ghosh has tried to explore the conditions and factors affecting various types of crops being grown on rooftops, taking all problems into consideration, and attempting to find solutions. He has especially focused on the problem of growing organic crops using organic growing medium (vermicompost) for rooftop processes. The benefits of rooftop gardening on education, the environment, ecology, food production and wellbeing are well documented. In his credit, a large number of papers have been published in both national and international journals, and he has supervised 18 PhD students. He has also carried out a large number of research projects in the entirety of his academic career. His contributions in the areas of organic farming, vermicompost technologies, tea cultivation and commercialisation, rooftop technologies and crop diversification have had impacts in the world of agriculture. He has visited many countries, in order to both gain and share knowledge, and has significant experience and expertise in the field of agriculture.

Dr Debajyoti Chakrabarty, PhD, WBES, has throughout an excellent academic career. He was awarded the Indian National Scholarship, and Junior Research Fellowship from CSIR for his academic achievement, and obtained his PhD degree from the University of Kalyani, and his specialization is in Fisheries Science. After completion of Junior Research Fellowship he joined West Bengal Education Service as a lecturer in Zoology at PG Department of Zoology, Darjeeling Government College in 1990, then he has served PG Department of Zoology in Krishnanagar Government College, PG Department of Zoology, Barasat Government College and in later two institutions he was Head of the Department. Now he is serving in the Department of Zoology in GGDC, Singur as HOD. He is serving for more than 30 years in West Bengal Education Service and has a research experience of more than 33 years. He successfully guided two students for PhD degrees and one student for MPhil degree. He has successfully completed two minor research projects funded by University Grants Commission as principal investigator. He has produced more than 31 research papers, a few books, chapters in National and International books and journals. He remained editor of two research journals. Beside his academic pursuits he has advisory in Fish Seed Supply, Fish Disease Prevention and Treatment, Fish medicine, Sustainable Development of Fisheries, Cage Culture, Bottom Clean, Biofloc, Conventional Culture, Fish Feed Making, Fish Feed Selling, Table size Fish Marketing and many other spheres of fisheries science



ISBN: 9789332555181

Principles of Crop Production: Theory, Techniques, and Technology, 2/e

 **George Acquaah**

 **768 | © 2015**

ABOUT THE BOOK

For undergraduate courses in Crop Science. May also be appropriate for Plant Science, and Horticulture courses.

This book provides the most comprehensive, detailed coverage of crop production issues in the United States.

FEATURES

- **NEW**—Significantly expanded content, with 12 new chapters—Provides crop-specific information for 10 selected field crops and essential coverage of latest developments.
- Makes text suitable for use in preparing for the Crop Certification exams.
- Allows students to understand the distinct techniques and technology associated with production of each crop.
- **NEW**—Over 50 new figures and 40 new charts.
- Enhances the presentation and student comprehension of the text.
- Emphasis on the underlying science of crop production—Views the crop producer as a manager of resources.
- Recognizes the varying backgrounds and geography of students taking this course, provides the “how and why” things are the way they are, and recognizes the business of crop production. Basic principles presented are applicable to anywhere in the world.
- Coverage of latest trends impacting crop production—i.e., sustainable agriculture, organic farming, environmental safety consciousness, etc.
- Gives students an understanding of how crop production is evolving and arms them with information for solid decision making on the job.

CONTENTS

Part I. Underlying Principles

1. Crop Production and Society
2. Plant Morphology
3. Fundamental Plant Growth Processes
4. Plant Growth and Development
5. Crop Improvement
6. Climate and Weather
7. Soil and Land
8. Plant Nutrients and Fertilizers
9. Plant and Soil Water
10. Pests in Crop Production
11. Agricultural Production Systems
12. Organic Crop Production
13. Transgenics in Crop Production
14. Rangeland and Pastures and Their Management

15. Tillage Systems and Farm Energy
16. Seed, Seedling, and Seeding
17. Harvesting and Storage of Crops
18. Marketing and Handling Grain Crops

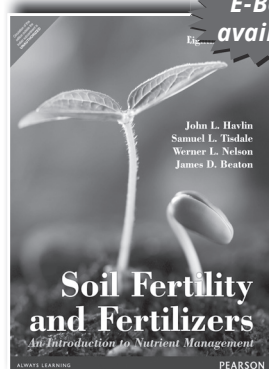
Part II. Commercial Production of Selected Field Crops

19. Wheat (Common)
20. Rice
21. Corn
22. Sorghum
23. Barley
24. Soybean
25. Peanut
26. Cotton
27. Potato
28. Alfalfa

ABOUT THE AUTHOR

George Acquaah, Langston University

Soil Fertility and Fertilizers, 8/e



E-Book
available



John L. Havlin | Samuel L. Tisdale | Werner L. Nelson | James D. Beaton



536 | © 2016



ABOUT THE BOOK

Soil Fertility and Fertilizers: An Introduction to Nutrient Management, Eighth Edition, provides a thorough understanding of the biological, chemical, and physical properties affecting soil fertility and plant nutrition. Covering all aspects of nutrient management for profitable crop production, the text pays particular attention to minimizing the environmental impact of soil and fertilizer management. The eighth edition of this proven text has been substantially revised to reflect rapidly advancing knowledge and technologies in both plant nutrition and nutrient management.

FEATURES

- Illustrates critical quantitative skills essential to professional success in nutrient management and related disciplines.
- Increased number of photographs, diagrams, and other visuals illustrating nutrient response in crops, soil management effects on crop growth, nutrient application equipment, and more.
- Covers a wide diversity of plants and cropping systems.
- Increased emphasis on alternative nutrient sources to the most common fertilizers.
- Substantially enhanced focus on environmental impacts of nutrient use.

CONTENTS

- | | | |
|-----------------------------------|-----------------------------------|---|
| 1. Introduction | 6. Potassium | 10. Basics of Nutrient Management |
| 2. Basic Soil-Plant Relationships | 7. Sulfur, Calcium, and Magnesium | 11. Nutrients Interactions and Economics |
| 3. Soil Acidity and Alkalinity | 8. Micronutrients | 12. Agricultural Productivity and Environmental Quality |
| 4. Nitrogen | 9. Soil Fertility Evaluation | |
| 5. Phosphorus | | |

ABOUT THE AUTHOR(S)

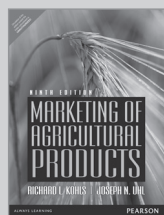
John L. Havlin, North Carolina State University

Samuel L. Tisdale

Werner L. Nelson, North Carolina State University

James D. Beaton, Potash and Phosphate Institute of Canada

EXCLUSIVE TO SHRI ADHYA



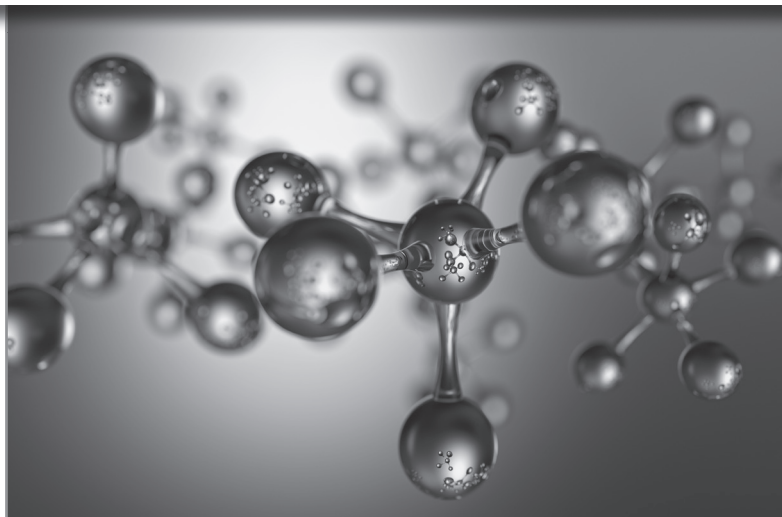
Marketing of Agricultural Products, 9/e



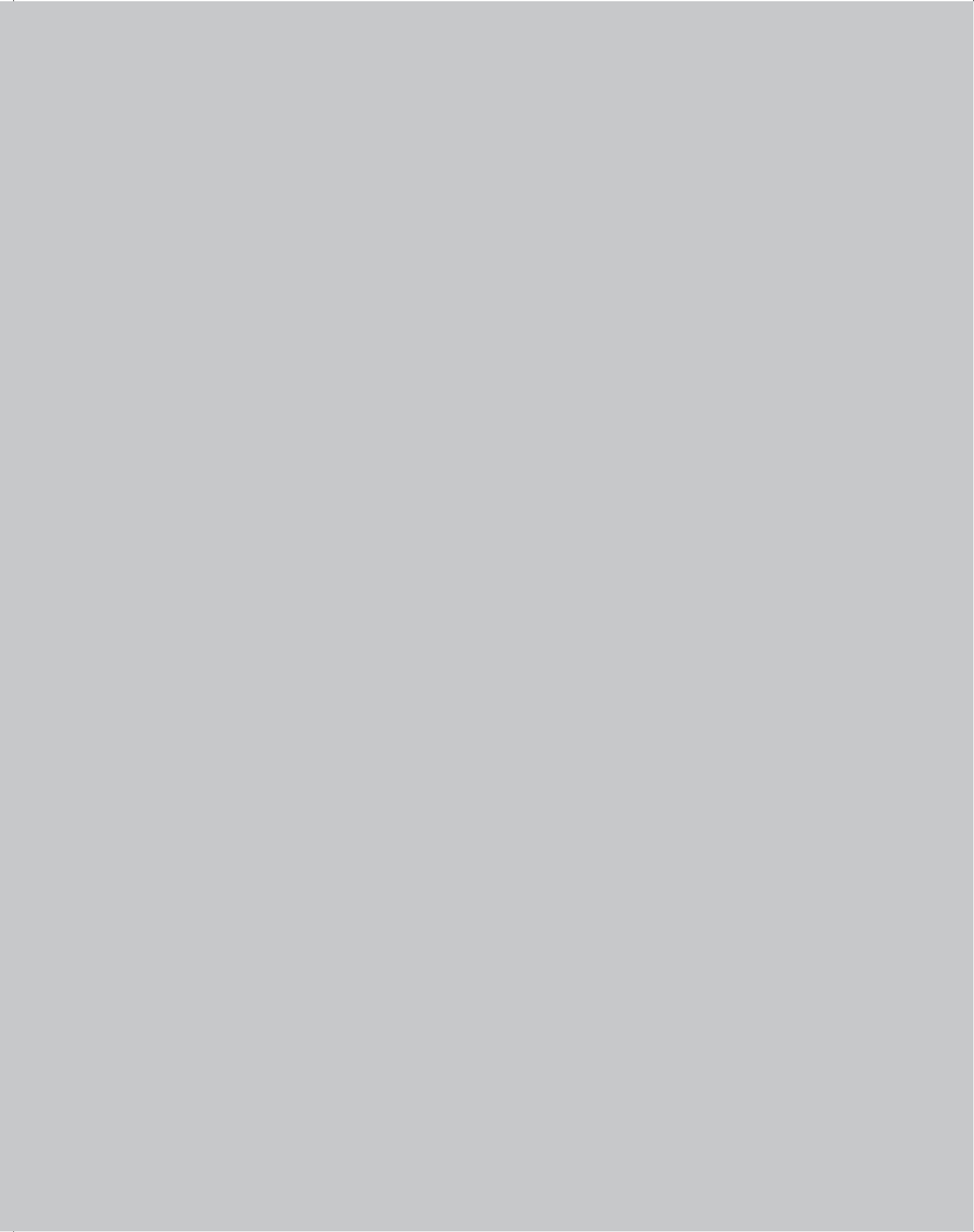
Kohls / Uhl

ISBN: 9789332556966

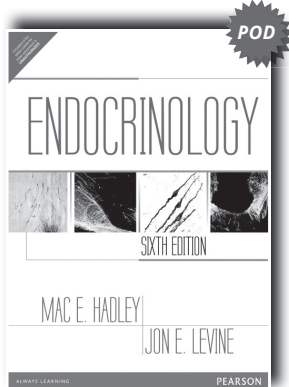
Pages: 544



Biology



Endocrinology, 6/e



ISBN: 9788131726105

 **Mac E. Hadley | Jonathan Levine**

 **608 | © 2009**



ABOUT THE BOOK

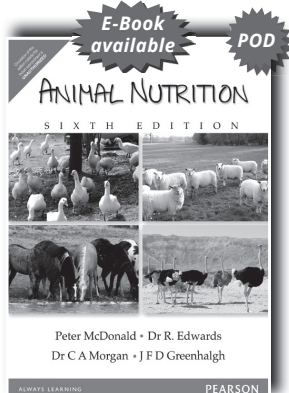
Appropriate for one-semester junior-graduate level courses in Endocrinology, Endocrine Physiology, as well as courses in medicine, dentistry, pharmacology, nutrition, nursing and other related medical or animal sciences where endocrinology is the focus. Hadley provides comprehensive coverage of endocrinology, centralizing on the critical roles of glands, hormones, receptors, and molecular signaling pathways in the control of physiological processes. This up-to-date Sixth Edition reviews the basic concepts, research methodologies, and the “state-of-the-art” scientific understanding of each of the major endocrine systems, in examples designed specifically for premedical and related professional courses.

FEATURES

- Emphasizes that all aspects of hormone function – synthesis, secretion, delivery, action and disposal – are of great physiological significance.
- Special reference to the roles of chemical messengers in the control of homeostatic systems—In the overall discussion of homeostasis.
- Coverage of the most recent molecular, genetic, and physiological—As well as the more classical methodologies.
- Traces the evolution of hormone structure—In relation to the comparative endocrinology of neurohypophysial hormones.

ANIMAL SCIENCE/ZOOLOGY

Animal Nutrition 6/e



ISBN: 9788131717608

 **Peter McDonald | R. Edwards | C A Morgan | J F D Greenhalgh**

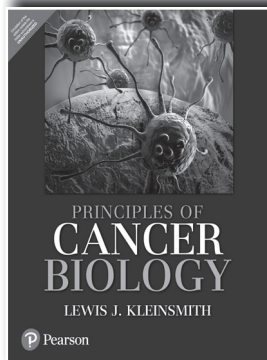
 **708 | © 2002**

ABOUT THE BOOK

The latest edition of this classic text, now in a larger format with improved artwork, continues to provide a clear and comprehensive introduction to the science and practice of animal nutrition.

FEATURES

- New chapter on Animal Nutrition and the Consumers of Animal Products addressing contemporary concerns for safety in human diets.
- New chapter on Feed Additives.
- Major revisions of chapters on food analysis, lipids, metabolism, energy systems and protein evaluation.



ISBN: 9789332577480

Principles of Cancer Biology

 Lewis J. Kleinsmith

 320 | © 2016

ABOUT THE BOOK

Principles of Cancer Biology, is an engaging book focused on providing students with a “big picture” view of cancer. Author Lewis Kleinsmith has written an instructional text focusing on key concepts for both students and a general audience. For those instructors who wish to delve into particular aspects of cancer biology in greater depth, each chapter contains a list of suggested readings that expand the detail as needed.

The text also emphasizes the scientific evidence that underlies cancer biology, and teaches students to think critically about this evidence- as there are constantly new “breakthroughs” and reports in this field. For students who need the review, there are brief reviews of several topics related to DNA replication and repair, cell division, cell signaling, and inheritance patterns in chapters where these subjects are relevant. By including these reviews, the text is both accessible and engaging to a broad audience of readers who are studying cancer biology for the first time, as well as an interested general audience.

FEATURES

- Focus on the key concepts to help build a foundation for further study.
- Scientifically based. The text teaches students how to read and critically evaluate the current research.
- Every chapter is subdivided into a series of conceptual sections, each introduced by a Sentence Heading that summarizes the Principle being described in that section.
- Art that Teaches. Each piece of art in the text has been carefully considered to ensure that readers can easily absorb the data.
- A bulleted Summary of Main Concepts is found at the end of each chapter helping students review the major principles covered in that chapter.
- Suggested Reading lists are included at the end of each chapter with an emphasis on review articles and carefully selected research publications that students are likely to find especially relevant and understandable.

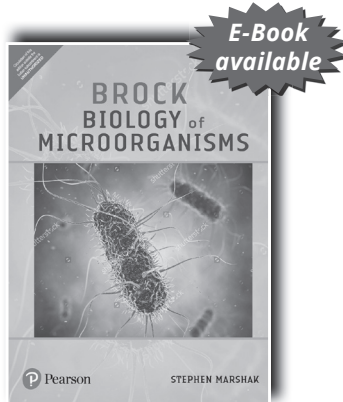
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| 1. What Is Cancer? | 9. Oncogenes |
| 2. Profile of a Cancer Cell | 10. Tumor Suppressor Genes and Cancer Overview |
| 3. How Cancers Spread | 11. Cancer Screening, Diagnosis, and Treatment |
| 4. Identifying the Causes of Cancer | 12. Preventing Cancer |
| 5. Chemicals and Cancer | Appendix A: Main Types of Cancer |
| 6. Radiation and Cancer | Appendix B: Human Carcinogens |
| 7. Infectious Agents and Cancer | Glossary |
| 8. Heredity and Cancer | Index |

ABOUT THE AUTHOR

Lewis J. Kleinsmith, University of Michigan

Brock Biology of Microorganisms, 14/e



ISBN: 9789332586864



Michael T. Madigan | John M. Martinko | Kelly S. Bender | Daniel H. Buckley | David A. Stahl



1040 | © 2017

ABOUT THE BOOK

Helping Today's Students Learn Microbiology.

The authoritative #1 textbook for introductory majors microbiology, *Brock Biology of Microorganisms, 14e* continues to set the standard for impeccable scholarship, accuracy, and outstanding illustrations and photos. This book for biology, microbiology, and other science majors balances cutting edge research with the concepts essential for understanding the field of microbiology, including strong coverage of ecology, evolution, and metabolism.

The Fourteenth Edition seamlessly integrates the most current science, paying particular attention to molecular biology and how the genomic revolution has changed and is changing the field. This edition offers a streamlined, modern organization with a consistent level of detail and updated, visually compelling art program.

FEATURES

- Focus on today's learners
- NEW! Streamlined organization better suits how instructors structure their courses, organizing course topics by 6 units consisting of 32 chapters. The Fourteenth Edition effectively and efficiently introduces students to the foundation and science of microbiology in a modern, appropriate organization.
- NEW! Molecular microbiology and genomics are introduced early in the text and discussed throughout multiple chapters for a more integrated, comprehensive introduction to the field.
- NEW! MicrobiologyNow chapter openers focus on current research problems and discoveries contextualizing chapter content and adding interest with content
- REVISED! A renamed "Explore the Microbial World" box feature (formerly "Microbial Sidebar") places greater emphasis on engaging research and discoveries from multiple microbiology disciplines.
- NEW! Updates have been made to all chapters, tables, boxes, and statistics with the latest data available.
- The Big Ideas at the end of each chapter review the core principles in the chapter by summarizing each section in 2–3 sentences.
- MiniQuizzes concluding each section contain 3–4 questions that give students an opportunity to stop and think about the core principles of each section.
- Extensive and accurate coverage of microbiology make this text a trusted name and valuable reference.
- Well organized and easy to understand writing style. Each author brings superb teaching and research knowledge to the book, with care to cover each topic and discipline appropriately and accurately. Madigan, as the general editor, provides a consistent voice and writing style to guide students throughout the course providing the best of both worlds: extensive coverage of all of the topics in microbiology as well as a consistent pedagogy and approach.
- Teach tough topics with superior art
- UPDATED! A heavily revised art program provides the consistency and context students need to understand this visual science. Updates include new illustrations and photos, as well as significant art style updates including:
 - Step/process art
 - DNA, RNA, and mRNA pipe style
 - Cell membranes
 - Cell style
 - Phylogenetic trees
 - Keys
 - Glassware
- NEW! Interior text design with a bold color palette, color screens, rules, more distinct heads, and new table design.

CONTENTS

I. The Foundations of Microbiology

1. Microorganisms and Microbiology
2. Microbial Cell Structure and Function
3. Nutrition, Culture, and Metabolism
4. Molecular Microbiology
5. Microbial Growth and Growth Control

II. Genomics, Genetics, and Virology

6. Microbial Genomics
7. Metabolic Regulation
8. Genetics of Bacteria and Archaea
9. Viruses and Virology
10. Genomics and Phylogeny of Viruses
11. Genetic Engineering and Biotechnology

III. Metabolic and Microbial Diversity

12. Metabolic Diversity of Bacteria and Archaea
13. Microbial Evolution and Systematics
14. Phylogenetic Diversity of Bacteria
15. Functional and Ecological Diversity of Bacteria
16. Diversity of Archaea
17. Diversity of Microbial Eukarya

IV. Microbial Ecology and Environmental Microbiology

18. Tools of the Microbial Ecologist
19. Microbial Ecosystems
20. Nutrient Cycles in Nature
21. Microbiology of the Built Environment
22. Microbial Symbioses

V. Pathogenicity and Immunology

23. Microbial Interactions with Humans
24. Principles of Immunology and Host Defense
25. Immune Mechanisms
26. Molecular Immunology
27. Clinical Microbiology and Immunology

VI. Infectious Diseases and their Transmission

28. Epidemiology
29. Person-to-Person Bacterial and Viral Diseases
30. Vectorborne and Soilborne Bacterial and Viral Diseases
31. Common Source Diseases: Food and Water
32. Fungal and Parasitic Disease

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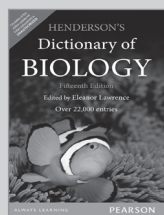
Dale Wortley, Cornell University

David A. Stahl, University of Washington Seattle

Daniel H. Buckley, Cornell University

➡ ALSO AVAILABLE...

DICTIONARY OF BIOLOGY: ALSO AVAILABLE



Henderson's Dictionary of Biology, 15/e



Lawrence

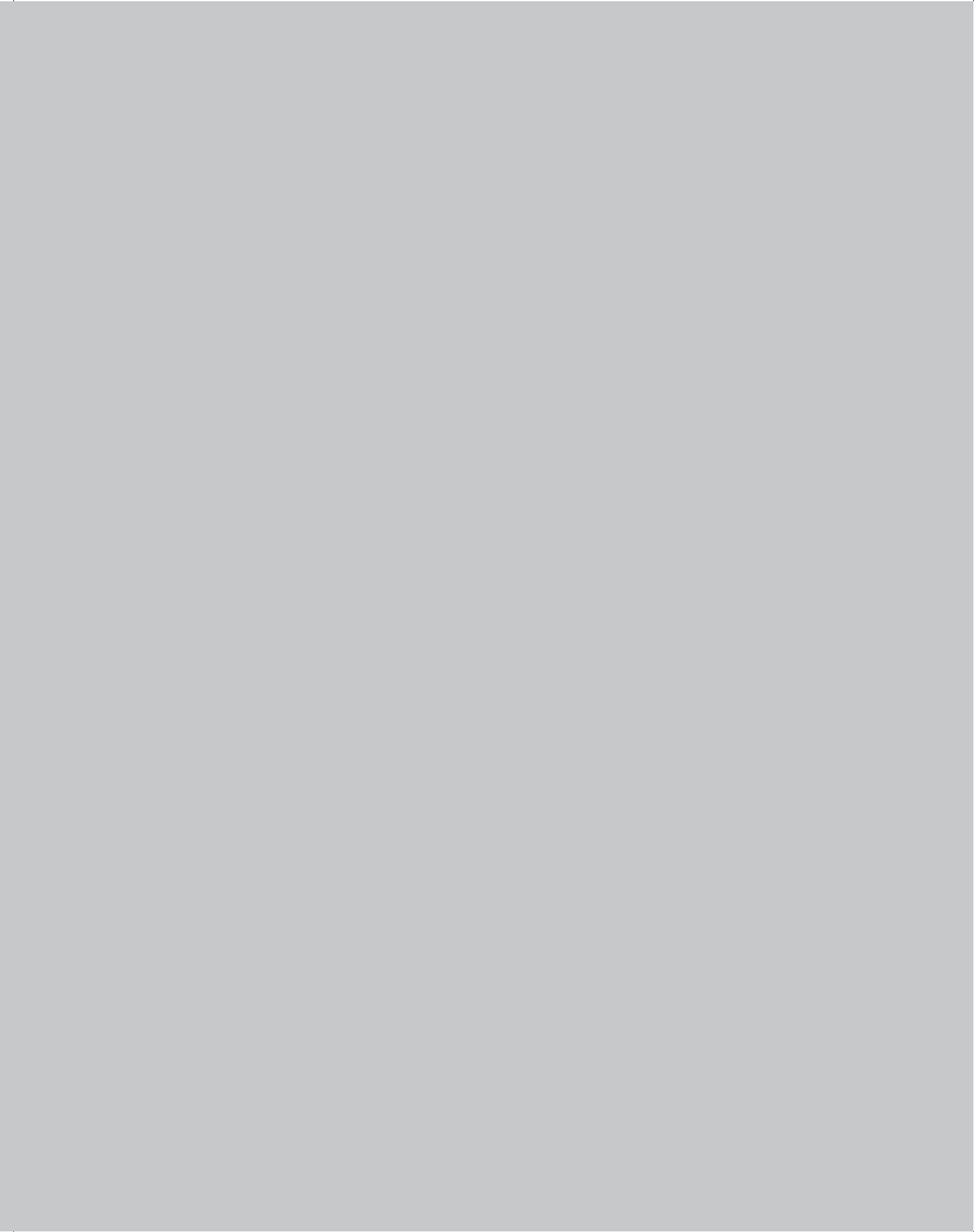
ISBN: 9789332517400

Pages: 776

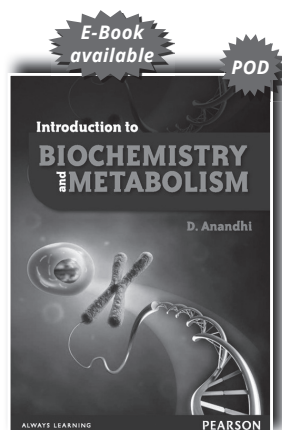




Biotechnology



➡ ALSO AVAILABLE...



ISBN: 9788131774854

Introduction to Biochemistry and Metabolism

 **Anandhi**
 **416**

ABOUT THE BOOK

Designed as per the UGC curriculum, Introduction to Biochemistry and Metabolism meets the syllabus requirements of all universities offering a course on biochemistry and metabolism. The subject, a core paper for the students of botany, zoology, biotechnology and bioinformatics, is dealt with in detail across 13 chapters with emphasis on the metabolism of amino acids, carbohydrates, lipids and high energy compounds. Replete with illustrations and schematic representations, the book reinforces theoretical concepts with its concise, easy-to-follow approach making it an ideal textbook on the subject.

FEATURES

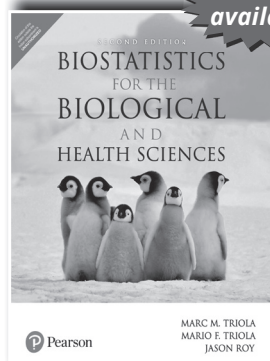
- Comprehensive coverage of free radicals, antioxidation and proteins.
- Focus on enzymes, fatty acids and their metabolic activities.
- Elucidation of the detoxification mechanism.
- Disseminates information on diseases caused due to enzyme deficiencies.
- 150 illustrations and schematics to help readers understand how biochemical reactions and metabolic pathways work
- Includes laboratory techniques for qualitative and quantitative lipid analysis and estimation of proteins in food samples.

CONTENTS

- | | | |
|------------------|-------------------------------|----------------------------------|
| 1. Cell | 6. Enzymes | 11. Nucleotide metabolism |
| 2. Carbohydrates | 7. High energy compounds | 12. Detoxication mechanism |
| 3. Amino acids | 8. Introduction to metabolism | 13. Antibiotics Literature Cited |
| 4. Lipids | 9. Amino acid metabolism | |
| 5. Nucleic acid | 10. Lipid metabolism | |

ABOUT THE AUTHOR(S)

D Anandhi is from the department of biochemistry, D G Vaishnav College, Chennai.



**E-Book
available**

ISBN: 9789353436537

Biostatistics for the Biological and Health Sciences, 2/e



Marc M Triola | Mario F Triola | Jason Roy



728 | © 2020



ABOUT THE BOOK

Biostatistics for the Biological and Health Sciences uses a variety of real-world applications to bring statistical theories and methods to life. Through these examples and a friendly writing style, the **2nd Edition** ensures that students understand concepts and develop skills in critical thinking, technology, and communication. The result of collaboration between two biological sciences experts and the author of the #1 statistics book in the US, this text provides an excellent introduction to statistics for students studying the biological, life, medical, and health sciences.

FEATURES

- **Latest and best methods** used by professional statisticians are incorporated.
- **New examples, exercises, and Chapter Problems** provide relevant and interesting real-world statistical applications, including biometric security, self-driving cars, smartphone data speeds, and the use of drones for delivery.
 - **More than 1,600 exercises** are included in the text, and nearly 85% are brand new!
 - **More than 200 examples** are scattered throughout the book, and almost 85% are new!
- **EXPANDED! Larger data sets** give students a more comprehensive look at concepts.
- **UPDATED! Real Data Sets:** 89% of the exercises in the text use real data, and 87% of the examples feature real statistics.
- **Easy-to-assign exercises** are graded by difficulty, and exercises that are particularly difficult or involve a new concept appear at the end of exercise sets and are marked by an asterisk, making it easy for instructors to assign homework.
- **Statistical Software:** SPSS, SAS, STATDISK, MINITAB, Excel, and TI-83/84 Plus output appear throughout the text.

CONTENTS

- | | |
|---|--|
| 1. Introduction to Statistics | 8. Hypothesis Testing |
| 2. Exploring Data with Tables and Graphs | 9. Inferences from Two Samples |
| 3. Describing, Exploring, and Comparing Data | 10. Correlation and Regression |
| 4. Probability | 11. Goodness-of-Fit and Contingency Tables |
| 5. Discrete Probability Distributions | 12. Analysis of Variance |
| 6. Normal Probability Distributions | 13. Nonparametric Tests |
| 7. Estimating Parameters and Determining Sample Sizes | 14. Survival Analysis |

ABOUT THE AUTHOR(S)

Marc Triola, MD, FACP is the Associate Dean for Educational Informatics at NYU School of Medicine, the founding director of the NYU Langone Medical Center Institute for Innovations in Medical Education (IIME), and an Associate Professor of Medicine.

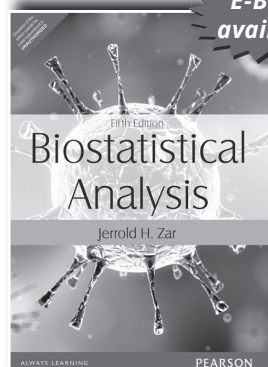
Mario F. Triola is a Professor Emeritus of Mathematics at Dutchess Community College, where he has taught statistics for over 30 years. Marty designed the original Statdisk statistical software, and he has written several manuals and workbooks for technology supporting statistics education.

Jason Roy, PhD, is Associate Professor of Biostatistics in the Department of Biostatistics and Epidemiology, Perelman School of Medicine, University of Pennsylvania.

Biostatistical Analysis, 5/e

 **Jerrold H. Zar**

 **760** | © **2014**



ISBN: 9789332536678

ABOUT THE BOOK

Zar's *Biostatistical Analysis, Fifth Edition*, is the ideal textbook for graduate and undergraduate students seeking practical coverage of statistical analysis methods used by researchers to collect, summarize, analyze and draw conclusions from biological research. The latest edition of this best-selling textbook is both comprehensive and easy to read. It is suitable as an introduction for beginning students and as a comprehensive reference book for biological researchers and for advanced students.

This book is appropriate for a one- or two-semester, junior or graduate-level course in biostatistics, biometry, quantitative biology, or statistics, and assumes a prerequisite of algebra.

FEATURES

- A broad collection of data-analysis procedures and techniques are presented, covering a wide variety of biological research, such as physiology, genetics, ecology, behavior, morphology.
- The most comprehensive treatment available includes coverage of the basics of statistical analysis, and also the following topics rarely or never found in statistics books for biologists:
 - Diversity
 - Polynomial regression
 - Multidimensional contingency tables
 - Stepwise regression
 - Nonparametric multiple comparisons
 - Higher order factorial analyses
 - of variance
 - Circular distributions
 - Power and sample size determinations.
- An orderly organization and presentation of topics, with cross-referencing as appropriate.
- The readable and accessible approach allows students with no previous statistical background or mathematical expertise beyond simple algebra to understand the material presented.
- The thoughtful presentation encourages students to think about the value of each statistical technique, as opposed to merely plugging numbers into formulae.
- The exposition considers complex procedures such as factorial analysis of variance and multiple regression in terms of the interpretation of typical computer output.
- A wealth of graphs and other figures are integrated to visually support concepts under discussion.
- A uniquely comprehensive set of statistical tables—more than 40 in all—facilitates statistical analyses without having to consult a separate book. This includes tables that are unique to this book.
- Worked examples for all major procedures guide readers step-by-step through the techniques, demonstrating each of the important concepts.
- An extensive bibliography directs readers to further relevant literature.

CONTENTS

- | | | |
|---|--|--|
| 1. Data: Types and Presentations | 12. Two-Factor Analysis of Variance | Correlation |
| 2. Populations and Samples | 13. Data Transformations | 21. Polynomial Regression |
| 3. Measures of Central Tendency | 14. Multiway Factorial Analysis of Variance | 22. Testing for Goodness of Fit |
| 4. Measures of Variability and Dispersion | 15. Nested (Hierarchical) Analysis of Variance | 23. Contingency Tables |
| 5. Probabilities | 16. Multivariate Analysis of Variance | 24. Dichotomous Variables |
| 6. The Normal Distribution | 17. Simple Linear Regression | 25. Testing for Randomness |
| 7. One-Sample Hypotheses | 18. Comparing Simple Linear Regression Equations | 26. Circular Distributions: Descriptive Statistics |
| 8. Two-Sample Hypotheses | 19. Simple Linear Correlation | 27. Circular Distributions: Hypothesis Testing |
| 9. Paired-Sample Hypotheses | 20. Multiple Regression and | 28. Answers to Exercises |
| 10. Multisample Hypotheses and the Analysis of Variance | | 29. Literature Cited |
| 11. Multiple Comparisons | | |



ABOUT THE AUTHOR(S)

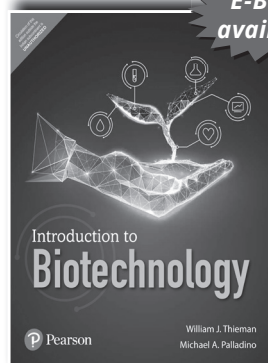
Jerrold H. Zar received his undergraduate degree in Biological Sciences from Northern Illinois University in 1962. He later earned his M.S. and Ph.D. degrees in biology and zoology from the University of Illinois at Urbana-Champaign. Zar then returned to Northern Illinois University for 34 years to serve in a variety of capacities. He joined the faculty at NIU as an Assistant Professor in 1968 and quickly rose through the ranks of associate and full professor to become Chair of the Department of Biological Sciences in 1978. He served two terms as Chair of the Department and then, became the Vice Provost for Graduate Studies and Research and Dean of the Graduate School. He was a founder of the Illinois Minority Graduate Incentive Program and the Illinois Consortium for Educational Opportunities Program, where he helped create and protect fellowship opportunities for minority graduate students at universities across the state. Zar is a member of 17 professional scientific societies, including being an elected fellow of the American Association for the Advancement of Science. His many research publications cover a range of topics, from statistical analysis to physiological adaptations of animals to their environment.

Introduction to Biotechnology, 4e

 William J. Thieman | Michael A. Palladino

 448 |  2021

Web Supplements

ISBN: 9789353945350

ABOUT THE BOOK

Introduction to Biotechnology brings the latest information and emphasizes the future of biotechnology and the biotechnology student's role with balanced coverage of basic cell and molecular biology, fundamental techniques, historical accounts, new advances, and hands-on applications. The 4th Edition features content updates in every chapter that reflect the most relevant, up-to-date changes in technology, applications, ethical issues, and regulations. Additionally, every chapter now includes an analytic Case Study that highlights current research and asks students to use what they've learned about key chapter concepts to answer questions.

FEATURES

- Coverage of recent research and developments includes discussions of gene editing approaches like CRISPR, precision medicine, immunotherapies, biosimilar drugs, transgenic crops, 3D bioprinting of tissues and organs, the Human Microbiome Project, and the Cancer Atlas Genome Project.
- Tools of the Trade Boxes provide details on modern techniques and methods related to each chapter's content and the biotech industry.
- Making a Difference inspires and engages students by discussing how real people, real companies, and real organizations are putting biotech to use to improve the quality of life.
- Forecasting the Future begins each chapter and highlights biotechnology-driven questions that have yet to be answered, are in the process of being researched, or are topics/research/policy that are under development and will have an impact on our future.
- 18 New - "You Decide" activities provide expanded coverage of ethics based on contemporary ethical issues. Thirty-seven "You Decide" boxes, integrated across all chapters, stimulate ethical discussion by giving students information relating to the social and ethical implications of biotechnology and regulations and asking students to grapple with open-ended questions.

CONTENTS

1. The Biotechnology Century and Its Workforce
 2. An Introduction to Genes and Genomes
 3. Recombinant DNA Technology and Genomics
 4. Proteins as Products
 5. Microbial Biotechnology
 6. Plant Biotechnology
 7. Animal Biotechnology
 8. DNA Fingerprinting and Forensic Analysis
 9. Bioremediation
 10. Aquatic Biotechnology
 11. Medical Biotechnology
 12. International Biotechnology Regulations
 13. Ethics and Biotechnology
- Appendix I: Answers to Questions
Appendix II: The 20 Amino Acids of Proteins
Glossary



ABOUT THE AUTHOR(S)

William J. Thieman taught biology at Ventura College for 40 years and biotechnology for 11 years before retiring from full time teaching in 2005. He continues to serve as an advisor to the college biotechnology program. He received his B.A. in biology from California State University at Northridge in 1966 and his M.A. degree in Zoology in 1969 at UCLA. In 1995, he started the biotechnology program at Ventura College. In 1998, he added the laboratory skills course, and it was articulated as a state-approved vocational program. He identified technical skills needed for the program while serving three summer internships at Amgen, Biosource (now Invotrogen) and Biopool. The internships provided an opportunity to learn protocols, interact with lab directors, and query technicians, focusing on identifying the skills needed in these biotechnology companies. He routinely engaged his contacts at these biotechnology companies to lead lab protocols and describe their experiences to his classes.

Michael A. Palladino is Vice Provost for Graduate Studies, former Dean of the School of Science and Professor of Biology at Monmouth University in West Long Branch, New Jersey. He received his B.S. degree in Biology from Trenton State College (now known as The College of New Jersey) in 1987 and his Ph.D. in Anatomy and Cell Biology from the University of Virginia in 1994.

Concepts of Genetics, 11/e



William S. Klug | Michael R. Cummings | Charlotte A. Spencer | Michael A. Palladino



816 | © 2020

ABOUT THE BOOK

Pearson presents the Eleventh Edition of *Concepts of Genetics*—a text now entering its fourth decade of providing support for students studying in this field, has occasioned still another fresh look. In addition to the normal updating that is inevitably required, this new edition focusses on the need to increase the opportunities for instructors and students to engage in **active and cooperative learning approaches** and the need to provide more **comprehensive, cutting-edge coverage of important and emerging topics** in genetics. This edition emphasizes the fundamental ideas of genetics and a strong problem-solving approach, while exploring modern techniques and applications of genetic analysis.

FEATURES

- **Modern Approaches to Understanding Gene Function** feature challenges students to understand how modern gene targeting approaches have dramatically advanced our understanding of gene function.
- **Evolving Concept of the Gene** is a short feature, integrated in appropriate chapters, that highlights how scientists' understanding of what a gene is has changed over time.
- **Three new Special Topics in Modern Genetics** mini-chapters explore cutting-edge topics, including updated content on Emerging Roles of RNA, Genetically Modified Foods, and Gene Therapy.
- **Neurogenetics** has been completely reworked and redefined to reflect the wealth of information regarding the impact of genetics on the field of neurobiology, linking genetic analysis to brain function and brain disorders.

CONTENTS

Part One: Genes, Chromosomes, and Heredity

1. Introduction to Genetics
2. Mitosis and Meiosis
3. Mendelian Genetics
4. Extensions of Mendelian Genetics
5. Chromosome Mapping in Eukaryotes
6. Genetic Analysis and Mapping in Bacteria and Bacteriophages
7. Sex Determination and Sex Chromosomes
8. Chromosome Mutations: Variation in Number and Arrangement
9. Extranuclear Inheritance

Part Two: DNA: Structure, Replication, and Variation

10. DNA Structure and Analysis
11. DNA Replication and Recombination
12. DNA Organization in Chromosomes

Part Three: Gene Expression, Regulation, and Development

13. The Genetic Code and Transcription
14. Translation and Proteins
15. Gene Mutation, DNA Repair, and Transposition
16. Regulation of Gene Expression in Prokaryotes
17. Regulation of Gene Expression in Eukaryotes
18. Developmental Genetics
19. Cancer and Regulation of the Cell Cycle

Part Four: Genomics

20. Recombinant DNA Technology
21. Genomics, Bioinformatics, and Proteomics
22. Applications and Ethics of Genetic Engineering and Biotechnology

Part Five: Genetics of Organisms and Populations

23. Quantitative Genetics and Multifactorial Traits
24. Neurogenetics
25. Population and Evolutionary Genetics

ABOUT THE AUTHOR(S)

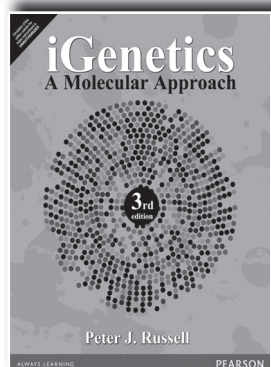
William S. Klug is an Emeritus Professor of Biology at The College of New Jersey (formerly Trenton State College) in Ewing, New Jersey, where he served as Chair of the Biology Department for 17 years.

Michael R. Cummings is Research Professor in the Department of Biological, Chemical, and Physical Sciences at Illinois Institute of Technology, Chicago, Illinois.

Charlotte A. Spencer is a retired Associate Professor from the Department of Oncology at the University of Alberta in Edmonton, Alberta, Canada.

Michael A. Palladino is Dean of the School of Science and Professor of Biology at Monmouth University in West Long Branch, New Jersey.

iGenetics: A Molecular Approach, 3/e



ISBN: 9789332571624

 **Peter J. Russell**

 **864** | © **2016**

ABOUT THE BOOK

With its modern chapter organization and new “Focus on Genomics” boxes, *iGenetics: A Molecular Approach* reflects the increasing molecular emphasis in today's experimental study of genes while helping students develop problem-solving skills and an appreciation for classic experiments. Although molecular topics are presented first, instructors can assign the chapters in any sequence.

Pedagogical features such as chapter-opening “Key Questions” and strategically placed “Keynotes” help students to efficiently master genetic concepts. The Genetics Place Companion Website contains interactive iActivities and narrated animations that help students visualize and understand processes and concepts that are illustrated in the text.

FEATURES

- Modern chapter organization covers all major areas of genetics, balancing molecular and classical aspects to give students an integrated view of genetic principles.
- The text's inquiry-based approach engages students in the process of science.
- Step-by-step examples of problem solving throughout the book represent a wide range of topics and difficulty levels.
- Key Questions, appear at the beginning of each chapter, focus student attention in advance on the major concepts within their reading.
- Keynotes, strategically placed throughout the chapter, summarize important ideas and allow students to check their progress.

CONTENTS

1. Genetics: An Introduction
2. DNA: The Genetic Material
3. DNA Replication
4. Gene Control of Proteins
5. Gene Expression: Transcription
6. Gene Expression: Translation
7. DNA Mutation, DNA Repair, and Transposable Elements
8. Genomics
9. Functional and Comparative Genomics
10. Recombinant DNA Technology
11. Mendelian Genetics
12. Chromosomal Basis of Inheritance
13. Extensions of and Deviations from Mendelian Genetic Principles
14. Genetic Mapping in Eukaryotes
15. Genetics of Bacteria and Bacteriophages
16. Variations in Chromosome Structure and Number
17. Regulation of Gene Expression in Bacteria and Bacteriophages
18. Regulation of Gene Expression in Eukaryotes
19. Genetic Analysis of Development
20. Genetics of Cancer
21. Quantitative Genetics
22. Population Genetics
23. Molecular Evolution

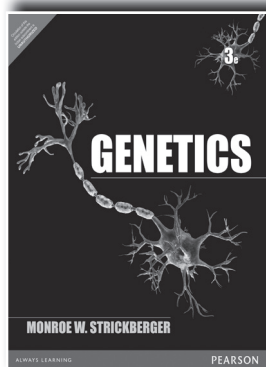
ABOUT THE AUTHOR

Peter J. Russell received his B.Sc. in Biology from the University of Sussex, U.K., in 1968 and his Ph.D. in Genetics from Cornell University in 1972. He then joined the Biology faculty of Reed College in 1972 where he is currently Professor of Biology. Russell teaches an upper-division genetics and molecular biology lecture/laboratory course, the genetics section of the introductory biology course, an advanced seminar course in molecular virology, and advises senior thesis research students. He is also the author of a number of successful biology and genetics textbooks.

Genetics, 3/e

 **Monroe W. Strickberger**

 **864** | © **2015**



ISBN: 9789332555105

ABOUT THE BOOK

Genetics occupies a unique central position among the various biological sciences because of its diverse specializations. This acclaimed book provides the basic theoretical information on genetics, the study of heredity and details some of the experiments and reasoning which yield this information. The book is organized into six parts and deals with the identification, transmission and distribution, arrangement, structure, and function of genetic material. The last part of the book deliberates on the course of genetic material in populations. The comprehensive material is supported by a multitude of illustrations and references and problems in every chapter.

CONTENTS

Part I Identification Of Genetic Material:

1. History of the Problem
2. Cellular Division and Chromosomes
3. Reproductive Cycles
4. Nucleic Acids
5. Replication and Synthesis of Nucleic Acids

Part II Transmission And Distribution Of Genetic Material:

6. Mendelian Principles: I. Segregation
7. Mendelian Principles: II. Independent Assortment
8. Probability and Statistical Testing
9. Dominance Relations and Multiple Alleles in Diploid Organisms
10. Environmental Effects and Gene Expression

11. Gene Interaction and Lethality
12. Sex Determination and Sex Linkage in Diploids
13. Maternal Effects and Cytoplasmic Heredity
14. Quantitative Inheritance
15. Analysis of Quantitative Characters

Part III Arrangement Of Genetic Material:

16. Linkage and Recombination
17. Gene Mapping in Diploids
18. Recombination in Fungi
19. Recombination in Bacteria
20. Recombination in Viruses

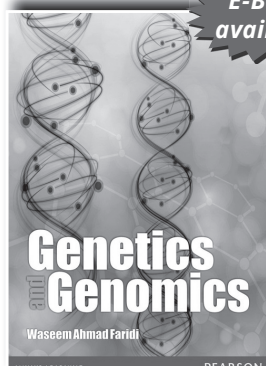
Part IV Change And Structure Of Genetic Material:

21. Chromosome Variation in Number

Genetics and Genomics

 **Waseem Ahmad Faridi**

 **572** | © **2013**



ISBN: 9788131771099

ABOUT THE BOOK

Genetics and Genomics provides an incredible blend of basic as well as applied knowledge and deals with the identification, transmission, structure and function of genetic material, recombinant DNA technology, and areas related to the expression and regulation of genome.

The book exhibits a thorough and enhanced approach to the conceptual understanding of the subject with latest examples and experiments. Being a multidisciplinary subject, the book would be a great asset for students studying zoology, botany, biochemistry, genetics and genomics, cytology, cytogenetics, cell and molecular

biology. Students of toxicology, genotoxicity and environmental biology, human genetics, medical and clinical genetics, paramedical and allied sciences would also find the book useful.

FEATURES

- Over 450 colour illustrations/diagrams, photographs and micrographs
- Succinct concept outlines and chapter-end summaries for effortless recapitulation
- Key terms at the end of each chapter for quick reference
- Over 230 review questions for practice

CONTENTS

1. Mendelian Genetics
2. Extension and Modification of Mendel Laws and Gene Interaction
3. Multiple Alleles and Polygenic Inheritance
4. Sex Determination and Differentiation
5. Sex Linkage and Holandric Transmission
6. Extranuclear Inheritance
7. Linkage and Crossing Over
8. Cell Mechanics and Molecular Basis of Cell Cycle
9. The Events of M Phase
10. Structural Organization and Special Types of Chromosomes
11. Changes in Arrangement and Chromosome Number
12. Nucleic Acids and Chromatin
13. DNA Replication and Fidelity
14. Mutation, Molecular Mechanism and DNA Repair
15. Genome Expression RNA Synthesis and Processing
16. Genome Expression Translation and Proteins
17. Regulation of Genome Expression
18. Cloning and Recombinant DNA Technology
19. Human Genetics
20. Population Genetics

ABOUT THE AUTHOR(S)

Waseem Ahmad Faridi, Centre of Excellence in Genomic Medicine Research (CEGMR), King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Former Professor, Department of Zoology, Aligarh Muslim University, Aligarh, Uttar Pradesh.

➡ ALSO AVAILABLE...




POD **Introduction to Quantitative Genetics, 4/e**

Falconer

ISBN: 9788131727409

Pages: 480

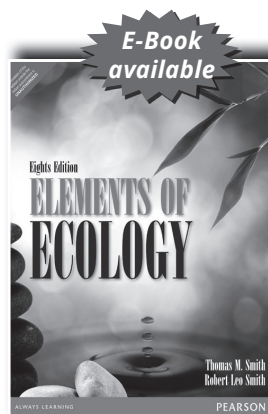


POD **Nanotechnology: A Gentle Introduction to the Next Big Idea**

Ratner

ISBN: 9788177587432

Pages: 280



ISBN: 9789332536692

Elements of Ecology, 8/e

 **Thomas M. Smith | Robert Leo Smith**

 **688 | © 2014**

ABOUT THE BOOK

Known for its evolution theme and strong coverage of the relevance of ecology to everyday life and the human impact on ecosystems, the thoroughly revised Eighth Edition features refined quantitative exercises, a restructured chapter on life history, a thoroughly revised species interactions unit including a chapter introducing the subject, and a new chapter on species interactions.

To emphasize the dynamic and experimental nature of ecology, each chapter draws upon current research in the various fields of ecology while providing accessible examples that help students understand species natural history, specific

ecosystems, the process of science, and ecological patterns at both an evolutionary and demographic scale.

To engage students in using and interpreting data, a wide variety of Quantifying Ecology boxes walk through step-by-step examples of equations and statistical techniques. The enhanced companion website (www.ecologyplace.com) features new MapMaster™ interactive map activities for exploring ecosystems, physical environments, and populations at regional and global scales, along with popular GRAPHit!, and QUANTIFYit! exercises that help students further master and apply math skills, and a new Pearson eText.

FEATURES

- Interpreting Ecological Data exercises help students test their understanding of graphs and data and to consider different outcomes.
- The Ecology Place companion website is referenced in the text and features new MapMaster interactive map activities for exploring ecosystems, physical environments, and populations at regional and global scales, along with popular GRAPHit!, and QUANTIFYit! exercises that help students further master and apply math skills, and a new Pearson eText. A subscription to the Ecology Place is included with each new copy of the text for no additional charge (www.ecologyplace.com).
- Quantifying Ecology boxes help students develop the quantitative skills they need to interpret ecological data, research, and models. Skills are reinforced by a set of follow-up questions and links to GRAPHit! and QUANTIFYit! on the companion website (www.ecologyplace.com).
- Field Studies discuss ecological research performed by young up-and-coming scientists, and challenge students to interpret the results of the featured research.
- Ecological Issues essays describe how humans influence the study of ecology. For example, the short essay “The Ecology of Antibiotic Resistance” discusses how antibiotic resistance is a result of natural selection. Each essay is followed by a set of critical thinking questions.
- Engaging introductions give students a “big picture” overview of the coming chapters in each of the eight parts of the book, so they can understand how various topics interrelate.
- Landscape Ecology chapter explores the role of disturbance in ecosystems.
- Further Readings at the end of each chapter emphasize how the text is based on real scientific studies. These Further Readings are annotated to explain their relevance to the student/instructor.

CONTENTS

I. The Physical Environment

2. Climate
3. The Aquatic Environment
4. The Terrestrial Environment

II. The Organism and its Environment


5. Ecological Genetics: Adaptation and Natural Selection
6. Plant Adaptations to the Environment
7. Animal Adaptations to the Environment

III. Populations

8. Properties of Populations
9. Population Growth
10. Life History
11. Intraspecific Population Regulation
12. Metapopulations

IV. Species Interactions

13. Species Interactions, Population Dynamics and Natural Selection

- 
- 14. Interspecific Competition
 - 15. Predation
 - 16. Parasitism and Mutualism

V. Community Ecology

- 17. Community Structure
- 18. Factors Influencing the Structure of Communities
- 19. Community Dynamics
- 20. Landscape Ecology

VI. Ecosystem Ecology

- 21. Ecosystem Energetics
- 22. Decomposition and Nutrient Cycling

- 23. Biogeochemical Cycles

VII. Biogeographical Ecology

- 24. Terrestrial Ecosystems
- 25. Coastal and Wetland Ecosystems
- 26. Land-Water Margins
- 27. Large-scale Patterns of Biological Diversity

VIII. Human Ecology

- 28. Population Growth, Resource Use, and Sustainability
- 29. Global Climate Change

ABOUT THE AUTHOR(S)

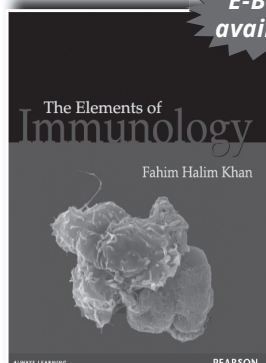
Thomas M. Smith, Associate Professor in Environmental Sciences at the University of Virginia, received his Ph.D. in ecology from the University of Tennessee in 1982. The main focus of his research over the past two decades has been to develop an individual based theory of community and ecosystems dynamics. As part of this work he has served on numerous national and international panels that have addressed the potential influence of human activities on the global environment. He has authored over 70 publications based on his research, and he has been recognized as one of the most cited scientists in the field of global change research.

Robert L. Smith holds a Ph.D. in Wildlife Biology from Cornell University. He is Professor Emeritus of Ecology at West Virginia University. He has spent over 30 years teaching Ecology and conducting field research throughout the world. His teaching responsibilities have involved mostly undergraduate courses in general ecology and graduate courses in population ecology and wildlife management. His research has included forest-fire related problems in southern West Virginia, vegetational development and succession on abandoned and reclaimed surface mines, the relation between forest vegetational structure and the forest bird community, and forest habitat assessment and habitat evaluation procedures based on vegetational structure.

The Elements of Immunology

 **Fahim Halim Khan**

 **508** |  **2009**



ISBN: 9788131711583

ABOUT THE BOOK

The Elements of Immunology is designed to introduce readers to the exciting world of immunology, the people who populate it and foster a curiosity to question and know more. The book is supported by a consistent, colourful art programme. The detailed explanation of concepts and terms, and the deconstruction of complex molecular mechanisms into simple, easy-to-remember steps help students focus on the fundamentals without any distractions. Packed with extensive Web-based supplements, the book enables students to visualize concepts, thereby enriching the learning process. The book, comprising twenty chapters, has numerous peda-

gogical elements built into it. Margin snippets present interesting and relevant information without breaking the flow of the text. Margin definitions highlight the key terms for easy identification and recollection. Each chapter talks about a relevant molecular biology technique, thus providing an insight into the practical aspect of immunology as well. A glossary at the end of the book lists out the important terms used.

FEATURES

- Simple and lucid language explaining core concepts
- Rich pedagogy that facilitates learning
- Colourful and consistent art programme comprising over 300 four-colour illustrations that helps to visualize and comprehend concepts better
- 400 end-of-chapter questions help revise the key concepts
- Discussion of the latest developments in the area of immunology such as MHC haplotype matching for cell transplantation, latest antiretroviral drugs developed against HIV, etc.
- Description of key contributors, researchers and their landmark experiments
- Packed with supplements and media resources
 - Over 30 animations that depict key concepts in three dimensions
 - A question bank containing over 400 questions and clinical case studies along with lecture slides including artwork from the book, as supplements to the text, specifically for the instructors

CONTENTS

- | | |
|--|--|
| 1. Introduction to the Immune System | 11. Antigen Processing and Presentation |
| 2. Cells and Organs of the Immune System | 12. Cell-mediated Immunity |
| 3. Antigens | 13. Hypersensitivity |
| 4. Antibodies | 14. Cell Migration and Inflammatory Response |
| 5. Generation of Antibody Diversity | 15. Immune Response to Infectious Agents |
| 6. Major Histocompatibility Complex | 16. Vaccines |
| 7. T-cell Receptor | 17. Transplantation Immunology |
| 8. T-cell Development and Activation | 18. Cancer and the Immune System |
| 9. B-cell Development and Activation | 19. Primary and Secondary Immunodeficiencies |
| 10. Complement System | 20. Autoimmunity and Autoimmune Diseases |

ABOUT THE AUTHOR(S)

Fahim Halim Khan Department of biochemistry at the Aligarh Muslim University.

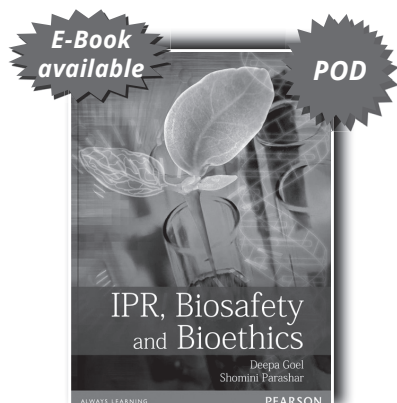
IPR, Biosafety and Bioethics



Deepa Goel | Shomini Parashar



248 | © 2013



ISBN: 9788131774700

ABOUT THE BOOK

This book provides a broad coverage of three areas of patenting intellectual property rights (IPR), biosafety and bioethics. It creates awareness about the value of IPR in our lives. The book also fosters a better understanding of the rights associated with IPR such as copyright, patent, trademarks, industrial designs, geographical indications and so on. Biosafety and bioethical issues prevalent in modern society are discussed. The text covers the complete syllabi of all major Indian universities and caters to the needs of Indian students.

FEATURES

- Discusses all aspects of the subject in a simple and lucid manner
- Contains review question and multiple-choice questions for practice
- Provides unmatched pedagogy:
 - 100 review questions
 - 120 multiple-choice questions

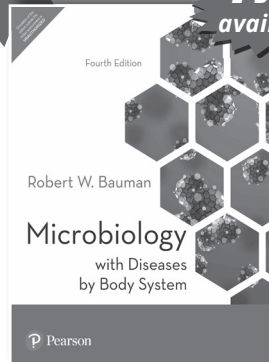
CONTENTS

1. Meaning and Justification of Patenting an Invention
2. History and Evolution of Patent Law
3. Classification of Patents
4. Grant of Patent and Patenting Authorities
5. Patent Owner: Rights and Duties
6. Protection of Plant varieties and Farmers' Right Act, 2001
7. Patent law- Present Scenario
8. Introduction to Biosafety
9. GMOs: Concerns and Challenges
10. National and International Regulatory Mechanism for GMO
11. Biosafety of Genetically Engineered Products
12. Allergenecity: Assessment of Genetically Modified food
13. Introduction to Bioethics
14. NGOs for Biosafety and Bioethics
15. Web-based Information of Biosafety on GMO
16. Good Laboratory Biosafety Practices
17. Case Studies in IPR and Biosafety

ABOUT THE AUTHOR(S)

Deepa Goel is Assistant Professor at the Department of Biotechnology, IMS Engineering College, Ghaziabad. Her core area of interest is the development of transgenic plants with elite traits.

Shomini Parashar is Assistant Professor at the Department of Biotechnology, IMS Engineering College, Ghaziabad. Her core area of interest is screening of microbes with novel traits that are useful to mankind.

4 Colour
EditionE-Book
available

ISBN: 9789332587441

Microbiology with Diseases by Body System, 4/e



Robert W. Bauman



944 | © 2017

ABOUT THE BOOK

Designed for pre-nursing and allied health students (and also mixed-majors courses), *Microbiology with Diseases by Body System, Fourth Edition* retains the hallmark art program and clear writing style that have made Robert Bauman's book a success. This Third Edition features compelling clinical content related to students' future healthcare careers and abundant opportunities for applied student practice. Chapter-opening Clinical Cases, Emerging Diseases boxes, and Clinical Applications boxes introduce students to real-world clinical situations. Student comprehension is ensured with end-of-chapter practice that encompasses

applied, visual, and conceptual understanding.

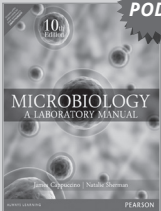
CONTENTS

1. A Brief History of Microbiology
2. Cell Structure and Function
3. Microscopy, Staining, and Classification
4. Microbial Metabolism
5. Microbial Nutrition and Growth
6. Microbial Genetics
7. Recombinant DNA Technology
8. Controlling Microbial Growth in the Environment
9. Controlling Microbial Growth in the Body: Antimicrobial Drugs
10. Characterizing and Classifying Prokaryotes
11. Characterizing and Classifying Eukaryotes
12. Characterizing and Classifying Viruses, Viroids, and Prions
13. Infection, Infectious Diseases, and Epidemiology
14. Innate Immunity
15. Adaptive Immunity
16. Immunization and Immune Testing
17. AIDS and Other Immune Disorders
18. Microbial Diseases of the Skin and Wounds
19. Microbial Diseases of the Nervous System and Eyes
20. Microbial Cardiovascular and Systemic Diseases
21. Microbial Diseases of the Respiratory System
22. Microbial Diseases of the Digestive System
23. Microbial Diseases of the Urinary and Reproductive Systems
24. Applied and Environmental Microbiology


ABOUT THE AUTHOR

Robert W. Bauman, Amarillo College

➡ ALSO AVAILABLE...



POD **Microbiology: A Laboratory Manual, 10/e**

 **Cappuccino**

ISBN: 9789332535190

Pages: 576

E-Book available



ISBN: 9789332571792

- Makes this book a practical guide in the field as tissue engineering changes, and helps students establish a conceptual framework within which to place further advances in the field.
- Supplies students with the broad coverage that eliminates their need to supplement class notes with medical and methods literature.

Tissue Engineering

 Palsson | Bhatia

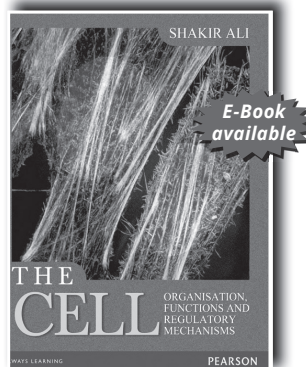
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ABOUT THE BOOK

For senior-level and first-year graduate courses in Tissue Engineering, in departments of bioengineering and for students researching tissue replacement and restorations as well as students of biology medicine and life science working with primary and complex cell biology.

FEATURES

- Coverage of basic, important fundamental concepts—Rather than review articles.



ISBN: 9788131773284

The Cell: Organization, Functions and Regulatory Mechanisms

 Shakir Ali

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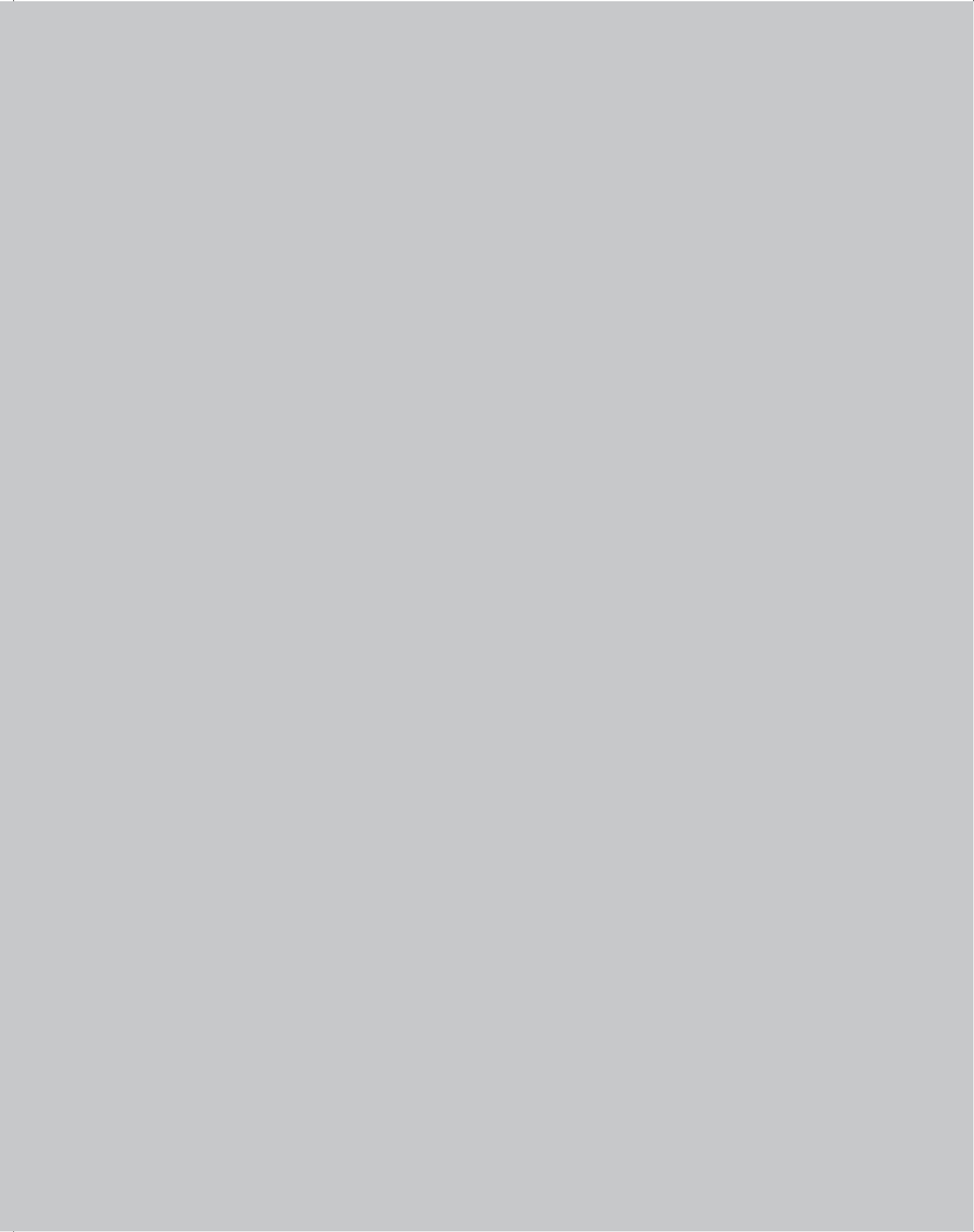


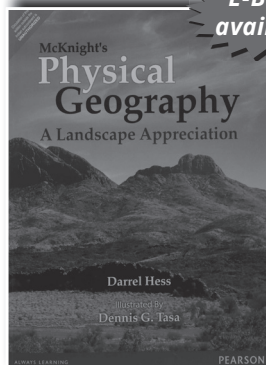
ABOUT THE BOOK

The Cell: Organisation, Functions and Regulatory Mechanisms provides a precise blend of basic and applied knowledge of cell science that reinforces the conceptual understanding of the subject with leading edge examples and experiments. Catering to the prescribed curricula for a wide range of programmes in different universities and colleges, this book is ideal for undergraduate and postgraduate students who pursue a detailed study of the subject. The book will also serve as a standard resource material for teachers and scholars who may like to enrich their knowledge about the cell in areas pertaining to their specific fields of interest.



Geology & Earth Science





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McKnight's Physical Geography: A Landscape Appreciation, 10/e

 **Darrel Hess | Dennis G. Tasa**

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ABOUT THE BOOK

Carrying forth Tom L. McKnight's well-known thematic focus on landscape appreciation, this best-seller fosters a solid understanding of Earth and its physical geography. Its clear writing style, superior art program, and abundant pedagogy appeal to a wide variety of students. This edition includes thoroughly updated content and introduces renowned illustrator Dennis Tasa—yet it maintains the proven approach first presented by McKnight more than two decades ago.

FEATURES

- Unique landscape appreciation approach and clear presentation of concepts make this hallmark classic text engaging and easily accessible to students of all backgrounds.
- An excellent new cartographic and illustration program by renowned geoscience Illustrator Dennis Tasa provides:
- Hundreds of maps with shaded relief where appropriate
- Line art with numerous multi-part illustrations that capture sequence and evolution to help students understand various processes
- Major photos paired with locator maps to enhance geographic literacy.
- Global environmental change is integrated and discussed extensively throughout the book.

CONTENTS

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| 1. Introduction to Earth | 12. Soils |
| 2. Portraying Earth | 13. Introduction to Landform Study |
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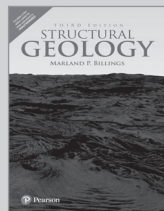
ABOUT THE AUTHOR(S)

Darrel Hess is professor of geography at City College of San Francisco, where he served as chair of the Earth Sciences department from 1995-2009. He regularly teaches physical geography, economic geography, and human geography. Hess received his B.A. in geography from UC Berkeley and his M.A. in geography from UCLA.

Dennis Tasa has been a renowned illustrator of many bestselling geoscience textbooks since 1978, including Physical Geography by Darrel Hess, Laboratory Manual in Physical Geology by the American Geosciences Institute and the National Association of Geoscience Teachers, as well as the physical geology, Earth science, and meteorology franchises by Tarbuck and Lutgens.

Tom L. McKnight taught geography at UCLA from 1956 to 1993. He received his bachelor's degree in geology from Southern Methodist University in 1949, his master's degree in geography from the University of Colorado in 1951, and his Ph.D. in geography and meteorology from the University of Wisconsin in 1955. During his long academic career, Tom served as chair of the UCLA Department of Geography from 1978 to 1983, and was director of the University of California Education Abroad Program in Australia from 1984 to 1985.

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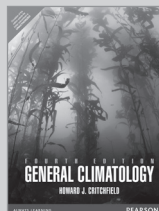
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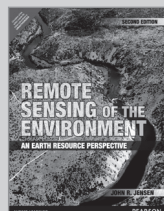
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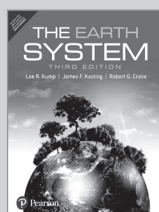


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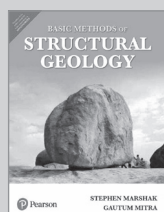


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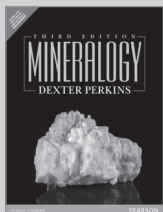


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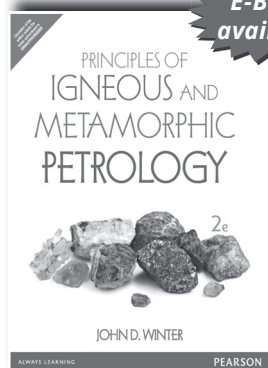


John D. Winter



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ABOUT THE BOOK

Typical texts on igneous and metamorphic petrology are geared to either advanced or novice petrology students. This unique text offers comprehensive, up-to-date coverage of both igneous and metamorphic petrology in a single volume—and provides the quantitative and technical background required to critically evaluate igneous and metamorphic phenomena in a way that students at all levels can understand. The goal throughout is for students to be able to apply the techniques—and enjoy the insights of the results—rather than tinker with theory and develop everything from first principles.

FEATURES

- A balanced presentation limits the theory to the extent that students can practice it on real occurrences—without such excessive detail that the course becomes more like chemistry than geology.
- A survey of actual occurrences of igneous and metamorphic rocks, and processes that produce them, is provided. This section is often greatly condensed in most other texts, but it is the most interesting and dynamic aspect of petrology.
- A techniques/occurrences approach for both igneous and metamorphic rocks that first presents the techniques, then applies them to assess a field area, and then expands the techniques as necessary if the field examples call for it.
- A comprehensive section on petrogenesis, particularly igneous petrogenesis, covers important igneous petrogenetic associations
- An accessible approach to mathematics, chemistry, and physics requires only a working knowledge of algebra; calculus is occasionally discussed, but is not required. Chemical and physical principles are presented early on, and at a level that is comprehensible and accessible.
- Worked examples, problems, and computer-related problems, found at the end of many chapters, carefully integrate a number of problems and computer programs
- Spreadsheets are used extensively in worked examples and problems. Spreadsheets, data files, and other programs
- Approximately 350 figures and tables are provided.

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Appendix A: Units and Constants

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ABOUT THE AUTHOR(S)

John D. Winter did his undergraduate work in geology at the University of Illinois at Urbana, and earned his M.S. and Ph.D. at the University of Washington in Seattle. Now Professor of Geology at Whitman College in Walla Walla, Washington, his principal fields of interest are in metamorphic petrology, mineralogy and crystallography, and geochemistry. He has spent several summers in Greenland, a summer in Labrador, and another in Norway, where he studied processes that take place during the formation and subsequent development of the ancient deep continental crust. He is also working on contact metamorphism in the Wallowa Mountains of NE Oregon. Briefly, he also worked as an exploration geologist in New Guinea.

Professor Winter teaches Mineralogy, Igneous and Metamorphic Petrology, Introductory Geology, Environmental Geology, and Geochemistry. Outside the classroom, his interests include travel, mountaineering, hiking, mountain biking, and telemark skiing.



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