

MICROBIOLOGY

Basic Microbiology (7th ed.). By Wesley A. Volk. 1992. HarperCollins Publishers (10 East 53rd St., New York, NY 10022). 602 pp.



For a textbook to have survived to its seventh edition, you know it has to be good, and this text is a pleasure to read. The format has been changed extensively with wider margins and additional white spaces that present the reader with a pleasant, readable page. The redrawn line art in this edition makes the figures stand out and attract the reader's attention. This format is very appropriate and well designed for the book's audience—allied health students.

The first unit (15 chapters) contains an introduction to microbiology covering microbial nutrition, metabolism, genetics and a survey of the world of microorganisms. The second unit (six chapters) covers infection and host resistance with a particularly well done survey of immunology. In the third unit (eight chapters), pathogenic microorganisms are covered by portal of entry, which is both interesting and effective. Finally, three chapters are devoted to water, food and industrial microbiology.

It is obvious when one compares this edition with earlier ones that although the text remains largely the same, it has been extensively revised and edited. A new feature in this edition, Microbiological Milestones, includes historical and epidemiological anecdotes which bring microbiology "to life" for the reader. These snippets from the past are among the highlights of the book.

While I have had an opportunity to read this text, I have not seen the ancillary materials. If the instructor's manual, test bank, transparencies, study guide, coloring book and laboratory manual are as well constructed as the book, this text is a choice to be considered very seriously by those who anticipate adoptions for microbiology courses for allied health students.

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ANATOMY & PHYSIOLOGY

A Laboratory Textbook of Anatomy and Physiology Lab Manual: The Cat (5th ed.). By A. B. Donnersberger, A. E. Lesak & M. J. Timmons. 1992. DC Heath (125 Spring St., Lexington, MA 02173). 445 pp. Paperback \$26.50.



This is one of the better laboratory manuals available for use in anatomy and physiology courses. It contains about 120 exercises covering the full range of topics typically found in a manual of this type. The contents range from Medical Terminology, The Microscope and Cells, through all of the systems of the body. The exercises are arranged topically and most are short enough so that several can be completed in a single lab period.

The manual was designed for use in a two-semester, college-level course. It could also be adapted for use in shorter courses and might be considered for use in advanced high school biology as well. There is also a "short version" of this lab manual available from the publisher for those who might want a condensed and slightly less expensive manual.

This manual has gone through several editions and has

The BioQUEST Collection

Simulation Modules

Five sophisticated simulations and tools, and four text and hypertext modules are included in the initial release of the BioQUEST Collection. The five simulations included are:

Biota: A tool for simulations of species interactions in diverse environments



Jim Danbury, Ben Jones, John Kruper, Eric Nelson, William Sterner, Jeff Schank, Jim Lichtenstein, Joyce Weil, and William Wimsatt (University of Chicago)

Biota is a rich system for modeling and simulating population dynamics. It supports the study of multiple species in diverse environments with migration between regions and multiple species interactions. An integrated set of "field tools" is also provided so that pre-authored models can be used as "black box" problems for simulated field studies.

Environmental Decision Making (EDM)



Elisabeth C. Odum (Santa Fe Community College), H.T. Odum (University of Florida - Gainesville), and Nils S. Peterson (From the Heart Software)

With EDM, students use "connect-the-components" visual programming tools to create and study model ecosystems. Students build models of increasing complexity, which can include social and economic forces, and study parameter variations to gain understandings of ecosystem function and productivity.

Genetics Construction Kit (GCK)



John N. Calley (University of Arizona), and John R. Jungck (Beloit College)

GCK provides a rich simulation of the classic Mendelian genetics laboratory. Students are presented organisms with unknown inheritance patterns and a set of tools for conducting experiments on these organisms. Students use these tools to design and carry out experimental strategies to infer unknown patterns.

Isolated Heart Laboratories (IHL)



Nils S. Peterson (From the Heart Software), and Virginia G. Vaughan (BioQUEST)

IHL is a graphical, interactive environment for exploring the pressure-volume relationships found in the heart in a variety of physiological states. These experiments help students move from single-event, single-cause thinking to integrated, systems level thinking.

Sequencel!



Allen Place and Tom Schmidt (Maryland Biotechnology Institute, University of Maryland)

Sequencel! simulates the experimental processes used for protein sequencing. Students have access to most common lab techniques as they design and carry out analyses of polypeptides of unknown lengths and sequences. Unknown sequences can be computer generated or user entered for various levels of difficulty.