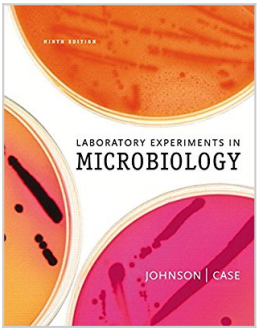

Laboratory Experiments in Microbiology (9th Edition)

By Ted R. Johnson, Christine L. Case

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Key Benefit: Containing 57 thoroughly class-tested exercises, this manual provides basic microbiology techniques with applications for undergraduate readers in diverse areas, including the biological sciences, the allied health sciences, agriculture, environmental science, nutrition, pharmacy, and various pre-professional programs. The **Ninth Edition** features a new, four-color design and a dramatically new art program. Many of the illustrations have been re-rendered in a modern, realistic, three-dimensional style, and detailed, colorful photomicrographs that were once grouped together in a color insert are now integrated throughout the exercises. Experiments have been refined throughout, and a new exercise on parasitic helminths readers with valuable practice in microscopic examination and observation.
Key Topics: Use and Care of the Microscope, Examination of Living Microorganisms, Microbes in the Environment, Transfer of Bacteria: Aseptic Techniques, Preparation of Smears and Simple Staining, Negative Staining, Gram Staining, Acid-fast Staining,
Structural Stains (Endospore, Capsule, Flagella), Morphologic Unknown, Isolation of Bacteria by Dilution Technique, Special Media for Isolating Bacteria, Carbohydrate Catabolism, Fermentation, Protein Catabolism, Part 1, Protein Catabolism, Part 2, Respiration,
Unknown Identification and Bergey's Manual, Oxygen and the Growth of Bacteria, Determination of a Bacterial Growth Curve: The Role of Temperature, Biofilms, Physical Methods of Control: Heat, Physical Methods of Control: Ultraviolet Radiation, Chemical Methods of Control: Disinfectants and Antiseptics, Chemical Methods of Control: Antimicrobial Drugs, Effectiveness of Hand Scrubbing, Regulation of Gene Expression, Isolation of Bacterial Mutants, Transformation of Bacteria, DNA Fingerprinting,
Genetic Engineering, Ames Test for Detecting Possible Chemical Carcinogens, Fungi: Yeasts and Molds, Phototrophs: Algae and Cyanobacteria 35. Protozoa, Parasitic Helminths, Isolation and Titration of Bacteriophages, Plant Viruses, Epidemiology, Koch's Postulate, Nonspecific Resistance, Blood Group Determination: Slide Agglutination, Agglutination Reactions: Microtiter Agglutination, ELISA Technique, Bacteria of the Skin, Bacteria of the

Respiratory Tract,Bacteria of the Mouth, Bacteria of the Gastrointestinal Tract, Bacteria of the Genitourinary Tract, Rapid Identification Methods, Identification of an Unknown from a Clinical Sample, Microbes in Water: Multiple-Tube Technique, Microbes in Water: Membrane Filter Technique,
Microbes in Food: Contamination, Microbes Used in the Production of Foods,
Microbes in Soil: The Nitrogen and Sulfur Cycles,
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- Sales Rank: #900475 in Books
- Published on: 2009-01-16
- Original language: English
- Number of items: 1
- Dimensions: 10.70" h x .80" w x 9.00" l, 2.16 pounds

- Binding: Spiral-bound
- 496 pages

Editorial Review

From the Back Cover
Newly revised to accompany Microbiology: An Introduction, Seventh Edition by Tortora, Funke, and Case, this lab manual includes 57 experiments that demonstrate the broad spectrum of microbiology. Intended as a manual of basic microbiologic techniques, this popular lab manual features applications in diverse areas, including the biological sciences, the allied health sciences, agriculture, environmental science, nutrition, pharmacy, and various pre-professional programs. Experiments have been refined in this new edition to encourage readers to develop critical thinking skills as well as learn basic facts and technical skills. Material with direct application to clinical and commercial labs is included whenever possible, and increased emphasis is placed on lab safety. For college instructors and students.

About the Author

Ted R. Johnson is a professor of biology at <?xml:namespace prefix = st2 /> St. Olaf College, a liberal arts college in Northfield, Minnesota, where he teaches courses in microbiology and immunology. He has taught at St. Olaf for 31 years and previously taught at Mankato State University. He received his master’s degree and his Ph.D in microbiology from the University of Illinois in Chicago, Illinois. While at St. Olaf College, he has developed and directed several abroad semester and interim programs. His research focuses on the immune response to virally induced cancer in various animal models.

Christine L. Case is a registered microbiologist and a professor of microbiology at Skyline College in San Bruno, California, where she has taught for the past 38 years. She received her Ed. D. in curriculum and instruction from Nova Southeastern University and her M.A. in microbiology from San Francisco State University. She was Director for the Society for Industrial Microbiology (SIM). She received the ASM and California Hayward outstanding educator awards and SACNAS Mentor award. In addition to teaching, Chris contributes regularly to professional literature, develops innovative educational methodologies, and maintains a personal and professional commitment to conservation and the importance of science in society. Chris is also an avid photographer, and many of her photographs appear in this lab manual.

Users Review

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This Laboratory Experiments in Microbiology (9th Edition) book is not really ordinary book, you have it then the world is in your hands. The benefit you will get by reading this book is information inside this guide incredible fresh, you will get facts which is getting deeper you actually read a lot of information you will get. This kind of Laboratory Experiments in Microbiology (9th Edition) without we recognize teach the one who studying it become critical in pondering and analyzing. Don't possibly be worry Laboratory Experiments in Microbiology (9th Edition) can bring whenever you are and not make your bag space or bookshelves' become full because you can have it in the lovely laptop even telephone. This Laboratory Experiments in Microbiology (9th Edition) having great arrangement in word along with layout, so you will not sense uninterested in reading.

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