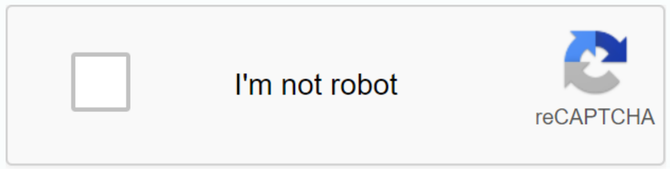

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Microbiology an introduction 12th edition pdf

Gerard J. Tortora is professor of biology and teaches microbiology, human anatomy and physiology at Bergen Community College in Paramus, New Jersey. In 1965, he received his M.A. in Biology from Montclair State College. He is a member of numerous biology/microbiology organizations, including the American Society of Microbiology (ASM), Human Anatomy and Physiology Society (HAPS), American Association for the Advancement of Science (AAAS), National Education Association (NEA), New Jersey Educational Association (NJEA) and the Metropolitan Association of College and University Biologists (MACUB). Jerry is the author of a number of biological science books. In 1995 he was selected as one of the best faculty scientists at Bergen Community College, and was appointed Distinguished Faculty Scholar. In 1996, Jerry received a National Institute for Staff and Organizational Development (NISOD) excellence award from the University of Texas and represented Bergen Community College in a campaign to raise awareness of the contributions of community colleges to higher education. Berdell R. Funke received his Ph.D., M.S., and B.S. in microbiology from Kansas State University. He spent his professional years as a professor of microbiology at North Dakota State University. He taught preliminary microbiology, including laboratory departments, general microbiology, food microbiology, soil microbiology, clinical parasitology and pathogenic microbiology. As a researcher at the Experiment Station in North Dakota State, he published numerous articles on soil microbiology and food microbiology. Christine L. Case is a registered microbiologist and professor of microbiology at Skyline College in San Bruno, California, where she has taught for the past 44 years. She received her EdD. in curriculum and instruction from Nova Southeastern University and its M.A. in microbiology from San Francisco State University. She was director of the Society for Industrial Microbiology (SIM). She received the ASM and California Hayward outstanding educator awards. In addition to teaching, Chris regularly contributes to professional literature, develops innovative teaching methods and remains personally and professionally committed to conservation and the importance of science in society. Chris is also an avid photographer, and many of her photos appear in this book. Added to cart Can't add an item to cart. Reseña del editor: NOTE: You are buying a standalone product; MasteringMicrobiology does not come with this content. If you want to buy both the physical text and masteringmicrobiology search to ISBN-10: 032192892X/ISBN-13: 9780321928924. This package includes ISBN-10: 0321929152/ISBN-13: 9780321929150 and ISBN-10: . Master Microbiology where it matters. Anywhere. A fascinating and clear To learning complex microbiology topics and theory Praised for its exceptionally clear presentation of complex subjects, this #1-selling text for microbiology non-majors offers a careful balance of concepts and applications, proven art that learns and the most robust, dynamic media in MasteringMicrobiology. The twelfth edition ofTora, Funke, and Case's Microbiology: An Introduction focuses on big picture concepts and themes in microbiology, encouraging students to visualize and synthesize difficult topics such as microbial metabolism, immunology, and microbial genetics. The text and its resources also help students to make connections between microbiology theory and disease diagnosis, treatment and prevention. Also available with MasteringMicrobiology MasteringMicrobiology is an online homework, tutorial and assessment resource that helps students quickly master concepts and improve course outcomes. 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Big Picture Disease features are arranged in two page spreads within each body-system disease chapter (chapters 21-26) as if as in chapter 19 (immune disorders). Each spread targets a particular disease and applies it to a related real-world challenge, many dealing with public health issues. For example, Chapter 24 discusses the re-representation of whooping cough as a threat to health in developed countries and related changes in vaccine formulations, while Chapter 19 includes a discussion on how to link the human microbiome and autoimmune diseases. Each Big Picture Disease spread contains key concepts that encourage students to make the connection between the topic presented and previously learned microbiology principles. New! Reworked supplement section in Chapter 16 (Congenital Immunity). New art and more simple discussions make this challenging and critical material easier for students to digest. Beautiful Figures Foundation focus on particularly important topics in microbiology. Clearly marked step numbers make these process-oriented numbers easy to follow, while a Key Concepts feature built into these figures makes the take-away lessons easy to review. In MasteringMicrobiology, Foundation Figures are enhanced with quizzes to ensure that students fully learn the material before moving on to later chapters. Active Learning Pedagogy encourages critical thinking new! In the Clinic, critical questions of thought appear at the beginning of each chapter. They encourage students to think as nurses in different clinical scenarios and to stimulate student interest in the upcoming chapter content. Clinical cases woven through each chapter help motivate students to think critically about the chapter content and provide them with practical application to their future careers in unified health. Each case segment contains critical thinking questions that students should be able to answer after reading the chapter material. In MasteringMicrobiology®, case studies come to life with additional images and questions, allowing students to get through the process of disease diagnosis. Check your understanding questions and figure questions emphasize critical thinking rather than remembering. Check your understanding questions appear at key points in the chapters, encouraging students to interact with the text and self-assess their understanding of the corresponding learning goals. A Name It activity appears with the study questions at the end of each chapter, giving students clues about the physical and biochemical nature of a microbe, signs and symptoms of the microbe disease caused, information about vaccines, etc., and then asking students to identify the microbe. Keep your course up to date with the latest in the field of microbiology NEW! ASMcue guidelines: The American Society of Microbiology has released six underlying concepts and 22 related topics to provide a framework for key microbiological topics deemed to be of lasting interest beyond the These topics determine what students need to understand at a deep level, including the large ramifications of those concepts and how they relate to other issues within the field. The 12th edition explains the themes and competencies at the beginning of the book and includes call-outs when chapter content matches one of these 22 topics. This approach helps students and instructors focus on the course's enduring insights and provides a learning tool for instructors to assess the understanding and skills of students' critical thinking. MasteringMicrobiology content is tagged on these instructions in addition to book-specific and global learning outcomes. Diseases are covered in chapters 21-26 and are organized by the body system, which facilitates learning for students who have taken an anatomy & physiology course that also organizes subjects per body system. The authors focus on and treat diseases from an allied health perspective. Also available with MasteringMicrobiology® MasteringMicrobiology is an online homework, tutorial and review product designed to improve student learning outcomes by helping students quickly master concepts. Students benefit from tutorials with instant feedback on wrong answers and hints that emulate the instructor's office experience to keep students on track. With a wide range of interactive, engaging and assignable activities, students are encouraged to actively learn and maintain difficult course concepts. New! Interactive microbiology is a dynamic suite of interactive tutorials and animations that teach important concepts in microbiology. Students actively deal with each subject and learn from manipulating variables, predicting results and answering formative and summative assessment questions. Each interactive microbiology tutorial begins with a clinical case scenario that allows students to explore different real world health care situations. Interactive microbiology explores challenging and important topics, including Gene Regulation: Operons, Biofilms and Quorum Sensing, Aerobic Respiration in Bacteria, Innate Immunity: Complement, Mechanisms of Antibiotic Resistance in Bacteria, and more. Interactive microbiology is accessible from the study area for on-the-go studying with mobile devices and they can also be assigned and assessed with diagnostics in the Mastering gradebook. New! MicroBoosters are a suite of short video tutorials that cover important concepts that some students need to review or re-learn. MicroBooster subjects include Study Skills, Mathematics, Scientific Terminology, Chemistry, Cell Biology, and Basic Biology.MicroBoosters can be assigned in the MasteringMicrobiology Item Library or as Dynamic Study Modules, and they are also available for self-study in the Mastering Study Area. New! Dynamic study modules help students obtain, retain and recall information and more efficient than ever before. The flashcard-style modules are available as a self-study tool or can be assigned by the instructor. New! Big Picture Coaching Activities are linked to the book's new Big Picture: Tough Topic and Big Picture: Disease features. As with the proven coaching activities associated with the book's Foundation Grades, these new assignment options ensure that students master the most difficult subjects before moving on to the chapter. New! Adaptive follow-up assignments can be assigned optionally based on each student's performance on the original homework assignment and provide additional coaching and practice if needed. Available exclusively with Microbiology: An introduction, these questions constantly adjust to the needs of each student, making efficient use of study time. New! Learning Catalytics a bring your own device (laptop, smartphone or tablet) classroom system for student engagement and assessment. With Learning Catalytics, instructors can assess students in real time with open tasks to explore student understanding. MasteringMicrobiology users can choose from Pearson's new library of questions designed specifically for use with Learning Catalytics.Microbiology Animations can be seen in MasteringMicrobiology® for students, and on the Instructor Resource/CD-ROM set (IR-DVD) for instructors. References to microbiology animations appear throughout the book. 115 topics were specially developed for the non-majors microbiology course. MicroFlix™are 3D film-quality animations with tutorials and gradable quizzes that help students understand three of the most difficult subjects in microbiology: metabolism, DNA replication, and immunology. MicroLab Tutors help instructors and students make the most of lab time and connect microbiology concepts, lab techniques and real-world applications. Using a combination of live-action video, molecular animation, assessment and visual feedback, these tutorials include answer-specific feedback and coaching to teach students how to interpret and analyze different lab results and ensure that students come to the lab better prepared to think critically. MicroLab Tutors can be assessed and assable in MasteringMicrobiology. Case Study Coaching Activities in MasteringMicrobiology® help students think critically and connect microbiology to human health. Lab Technique Videos give students the opportunity to see techniques performed correctly and to question themselves about lab procedures both before and after lab time. Students come more prepared and confident for lab time, freeing up lab and college time. Help students visualize and master the toughest topics and more big picture Tough Topic features are 2-page spreads that focus on the most challenging topics for students to master: (Chapter 5), genetics (Chapter 8) and immunity (Chapter 16). Each Big Picture spread breaks down these important concepts into manageable steps and gives students a clear learning framework for the corresponding chapters. Big Pictures are assigning as coaching activities in MasteringMicrobiologyQuick-response (QR) codes allow students to watch related MicroFlix videos on their smart device.. 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