

PREFACE

To the Student,

Being a college student today means juggling many priorities: work, school, extracurricular activities, family. If you're reading this book, you've probably enrolled in your first college science course, and it may be the only one you'll ever take. With so many priorities competing for your attention, you may be unsure how to fit studying biology into your busy life. Good news: This book is written specifically for you!

Over the years, I've seen students in my classes striving to succeed while also wishing to be as productive as possible with their study time. *Biology: The Core* was designed from the ground up to help you learn efficiently and thrive in this course. Only the most important and relevant information—the core of biology content—is included. These biological concepts are displayed in highly visual, consistent, and approachable two-page modules that guide you along a clear learning path, so that reading your textbook is more a pleasure than a chore.

You might also be wondering how this course—and biology in general—applies to your own life. Luckily, this is easy to address, since issues like nutrition, cancer, vaccines, and genetically modified foods directly affect you and those you care about. For the Third Edition, new modules were added that address these and other current issues directly, so that you may better see how biology is relevant to your life. Other modules help you critically evaluate the scientific-sounding claims that constantly bombard you, and how to distinguish valid scientific claims from bogus ones.

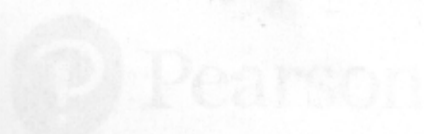
The *Biology: The Core* textbook is paired with a robust online library, Mastering Biology, that contains videos, animations, current events, and interactive tutorials that help you draw connections between the course material and the world around you. Questions you might have about many topics will be addressed in this online complement to your textbook. It is filled with helpful multimedia tools that allow you to gain a thorough understanding of the content so that you can succeed in your course. References to Mastering Biology at the top of many modules point you to the most helpful online tools.

I hope that *Biology: The Core* meshes with your goals and your priorities, acting as a useful guide for this course and addressing questions you run into in your broader life. Please feel free to drop me an email to tell me about your experience with *Biology: The Core* or to provide feedback (good or bad!) regarding the text or online resources.

Best wishes for a successful semester—and enjoy the big adventure of biology! It's not only in the pages of this book, but everywhere around you.

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To the Instructor,

In a world with so many options for non-major biology textbooks, what makes this one different? The answer is: a focus on today's students. We've all watched our non-science-major students struggle with the depth of material and relating biology to their lives. Which concepts do non-science students *need to know* in order to understand the relevance of biology? If we pare down the content and focus on the most important take-home lessons—the information that we hope students will remember 10 years after your course—what remains is the core: a set of essential biological concepts that presents the big picture, providing students with a scientific basis for the issues they will confront throughout their lives.

Biology: The Core is a different kind of textbook, one that presents information in small chunks using a nonlinear, engaging, visual style. The book contains only the most essential content for each topic. All information is presented in stand-alone two-page modules that fully integrate text and art into a single teaching tool. Modules can be read in any order and each module stands alone (without references to other modules), allowing you the flexibility to assign topics in whatever sequence best suits your course.

For the Third Edition of *Biology: The Core*, content was revised based on feedback received from professors and students using the text from around the country. The specific changes are detailed on the next page, but the overall approach is to ensure that the core content is approachable and clearly connected to students' lives. Included in this new edition are a series of "Core Issue" modules. These ten special modules highlight current topics that your students may hear about frequently—vaccines, antibiotic resistance, diabetes, and cancer, to name a few—and tie them to the core content, showing students the relevancy of basic biology knowledge.

Over the last few years, in my communication with many instructors around the country, I've also observed that those of us teaching biology to non-majors are increasingly emphasizing science literacy skills above all else. For this reason, the Third Edition places particular emphasis on teaching students to think scientifically and helping them appreciate and apply critical thinking skills to their own lives. A largely rewritten Chapter 1 brings many of these important skills together.

The printed text is paired with Mastering Biology, an online tutorial platform that allows you to reinforce the book content and expand on the basic concepts presented in each module as needed. The activities and resources in Mastering Biology also offer you the flexibility to incorporate a wide variety of applications and current issues—including several ones new to this edition—into your teaching. Unlimited by the particular set of examples printed in a static textbook, a rich collection of online resources—including Current Topic PowerPoint presentations, news videos, Current Events news articles, and interactive tutorials—enables you to connect the core content to interesting, relevant, and timely issues that are important to you and your students. Forty—including 18 brand new, Guided Video Tours found within Mastering Biology—are designed to help students learn to use the textbook and to hone their study skills.

I hope that the aims of *Biology: The Core* resonate with the teaching and learning goals of your non-major introductory biology course. Feel free to send an email telling me about your course and your students, to provide feedback regarding the text or the online resources, or just to chat about the non-major course in general—it's my favorite topic of conversation!

Best wishes for a successful semester,

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