A Letter from the Author: Laura Frost

on General, Organic, and Biological Chemistry: An Integrated Approach, 4th edition

Dear Colleagues,

There are students interested in health professions who need a little chemistry, but may be a little apprehensive about taking a chemistry course. You and I know who they are. They show up to class the first day petrified and hoping to get out of the class by the end of the semester with a C. As we considered how to best reach these students, we found that teaching general and organic chemistry topics through biochemistry applications increased student interest in our course, and so General, Organic, and Biological Chemistry: An Integrated Approach emerged.

When we say “Integrated” it means two things: A) that the biochemistry topics of most interest to these students are mixed in as soon as possible to hold interest which is why organic chemistry appears as Chapter 4 and carbohydrates is Chapter 6, and B) whenever possible we provide real-life applications to chemistry topics to bring relevance to the students through Integrating Chemistry features that appear in each chapter.

In recent years, our colleagues in cognitive science have shown us more about how students learn and how we can better reach them through our teaching practices. My own classroom has changed a lot since 1995! We have incorporated many of these evidence-based teaching practices within this textbook’s fabric (read more about this in the Preface). In this newest edition we offer the student a Learning Tip at the beginning of each chapter to help them maximize their learning efforts.

As colleges and universities continue to engage students in the classroom through active learning, this book provides a unique set of guided inquiry activities that can be used to teach topics to students in groups during class. We have embedded some of these within the textbook as Discovering the Concepts so that you don’t have to lecture every period. If you find that your students enjoy these, we have an entire series of these activities that align with the textbook topics. Whether you flip your classroom, use team-based learning, POGIL, or other active learning approaches you will find these activities useful as you facilitate learning in your classroom.

The electronic resources available through Mastering Chemistry have been constructed to assist your students with their learning before (Dynamic Study Modules), during (Learning Catalytics), and after (Online homework, tutorials, and interactive videos) class.

I am so pleased to be able to offer you the updated fourth edition of General, Organic, and Biological Chemistry: An Integrated Approach. We provide even more problems with health applications, more relevant material for the aspiring health professions student, and more pedagogical elements that will assist students with their learning. As I continue to teach from this book, my students regularly comment on how much they learn just from the book itself, which keeps me confident that we are hitting our mark. I hope you enjoy the book as you work with this textbook, I am always available for your comments.

Sincerely,

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