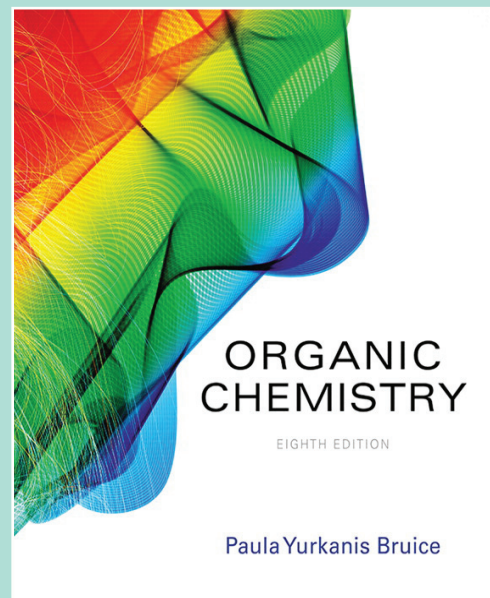




Pearson

Organic Chemistry Plus MasteringChemistry
with eText -- Access Card Package, 8e

Paula Yurkanis Bruice



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A framework for organic chemistry built around the similarities in reaction types.

Paula Bruice's presentation in *Organic Chemistry, Eighth Edition* provides mixed-science majors with the conceptual foundations, chemical logic, and problem-solving skills they need to reason their way to solutions for diverse problems in synthetic organic chemistry, biochemistry, and medicine. The Eighth Edition builds a strong framework for thinking about organic chemistry by unifying principles of reactivity that students will apply throughout the course, discouraging memorization. With more applications than any other textbook, Dr. Bruice consistently relates structure and reactivity to what occurs in our own cells and reinforces the fundamental reason for all chemical reactions—electrophiles react with nucleophiles. New streamlined coverage of substitution and elimination, updated problem-solving strategies, synthesis skill-building applications and tutorials guide students throughout fundamental and complex content in both the first and second semesters of the course.

Personalize learning with MasteringChemistry

MasteringChemistry from Pearson is the leading online homework, tutorial, and assessment system, designed to improve results by engaging students before, during, and after class with powerful content. Instructors ensure students arrive ready to learn by assigning educationally effective content before class, and encourage critical thinking and retention with in-class resources such as Learning Catalytics™. Students can further master concepts after class through traditional and adaptive homework assignments that provide hints and answer-specific feedback. The Mastering gradebook records scores for all automatically graded assignments in one place, while diagnostic tools give instructors access to rich data to assess student understanding and misconceptions.

Mastering brings learning full circle by continuously adapting to each student and making learning more personal than ever—before, during, and after class.

Before Class

■ **NEW! Organic Chemistry Dynamic Study Modules** focus on general chemistry remediation, acid-base chemistry, functional groups, nomenclature, and key mechanisms. The modules help students study effectively on their own by continuously assessing their activity and performance in real time. Here's how it works: students answer a set of questions and indicate their confidence level for each answer. The questions repeat until students answer them all correctly and confidently. Once completed, the module explains the key concept. Dynamic Study Modules are available as graded assignments for prior to class, and are accessible on smartphones, tablets, and computers.

■ **NEW! Pearson eText 2.0 features include:**

- Available on smartphones and tablets
- Seamlessly integrated videos and other rich media
- Accessible (screen-reader ready)
- Configurable reading settings, including resizable type and night reading mode
- Instructor and student note taking, highlighting, bookmarking, and search and are accessible on smartphones, tablets, and computers.

During Class

■ **NEW! Learning Catalytics™** generates class discussion, guides your lecture, and promotes peer-to-peer learning with real-time analytics. MasteringChemistry with eText now provides Learning Catalytics—an interactive student response tool that uses students' smartphones, tablets, or laptops to engage them in more sophisticated tasks and thinking. Instructors can:

- Pose a variety of open-ended questions that help students develop critical thinking skills around structure and reactivity in organic chemistry with 10 new Learning Catalytics questions for each chapter of Organic Chemistry, Eighth Edition.
- Monitor responses to find out where students are struggling
- Use real-time data to adjust the instructional strategy and engage students during class
- Manage student interactions by automatically grouping students for discussion, teamwork, and peer-to-peer learning
- Instructor and student note taking, highlighting, bookmarking, and search and are accessible on smartphones, tablets, and computers.

After Class

■ **NEW! MasteringChemistry's Organic Chemistry Drawing Tool** is a customized version of Java Free MarvinSketch that accommodates the diversity of structures and reaction mechanisms inherent to learning organic chemistry while providing students with a wrong answer specific feedback. This educational version of MarvinSketch has been customized in response to input from hundreds of undergraduate students. The drawing tool includes comprehensive MasteringChemistry tutorials, specific to drawing with MarvinSketch, that equip students to start quickly drawing organic structures and mechanisms to complete homework. The tutorials cover how to accurately draw reaction mechanisms, how to modify answers, and how to use the palette. All mechanism-based problems provide feedback specific to each step of the reaction, and new visual cues help clarify exact placement of arrows, enable selection of the electron, and highlight which bonds have been formed or broken.

■ **Assignable, textbook specific skill building tutorials guide students through the toughest topics in organic chemistry including:**

- Acids and Bases (after chapter 2)
- Using Molecular Models (after Chapter 3)
- Interconverting Structural Representations (after Chapter 4)
- Drawing Curved Arrows (after Chapter 5)
- Drawing Resonance Contributors (after chapter 8)
- Drawing Curved Arrows in Radical Systems (after Chapter 13)
- Synthesis and Retrosynthetic Analysis (after Chapter 17)
- Rate Changes and Kinetics (Appendix II)
- Configurable reading settings, including resizable type and night reading mode
- Instructor and student note taking, highlighting, bookmarking, and search and are accessible on smart-phones, tablets, and computers.

■ **NEW! Six NMR/IR Spectroscopy simulations** (a partnership with ACD labs) allow professors and students access to limitless spectral analysis with guided activities that can be used in the lab, in the classroom, or after class to study and explore spectra virtually. Activities authored by Mike Huggins, University of West Florida, prompt students to utilize the spectral simulator and walk them through different analyses and possible conclusions.

■ **1500 automatically graded questions** can be assigned as homework or practice. These questions are specific to the Eighth Edition and the majority requires drawing structures and reactions.

■ **Enhanced end-of-chapter problems** now include wrong-answer specific feedback on all mechanism problems so students have the opportunity to practice and test their understanding of organic reactivity outside of class with the help and ease of an updated drawing tool and detailed feedback on their work.

About the Book

1. A modern, streamlined organization emphasizes unifying principles of reactivity, offering an economy of presentation and discouraging memorization.

- The **text consistently highlights the fundamental reason** for all chemical reactions — electrophiles combine with nucleophiles – in order to keep students focused on the key ideas.
- **Students are introduced to synthetic and retrosynthetic chemistry** early on, allowing them to grasp multistep synthesis from the beginning.

2. The textbook bridges the gap between organic chemistry and biochemistry

Because bioorganic chemistry is the bridge between organic chemistry and biochemistry, the text emphasizes that the organic reactions that chemists carry out in the laboratory are similar to those performed by nature inside a cell. These connections are especially important to biological science majors.

- **In Chapters 1-20**, the bioorganic material is presented as “interest boxes” and within the last sections of the chapters so that this material is available to the student without requiring the instructor to introduce bioorganic topics into the course.
- **In Chapters 21-26**, focus on the organic chemistry of living systems. These chapters have the unique distinction of containing more chemistry than is typically found in the corresponding parts of a biochemistry text.

3. UPDATED! Revised, accuracy-checked text provides increased exam relevancy

- **To better prepare students for the MCAT exam**, MCAT learning outcomes and MCAT-style questions have been added to the Student’s Study Guide and Solutions Manual, as well as MasteringChemistry.
- **Contributing author Richard Morrison, University of Georgia**, has reviewed and honed the problem solving presentations, end of chapter problems, and the solutions manual.

4. NEW! Improved visuals and organization engage students with difficult subject matter, organizes the chapter content and improves ease of use:

- **NEW! Expanded annotations** reinforce the revised art program and help keep students focused on the most important material.
- **NEW! Numerous subheads** are part of a redesigned text that enhances ease of use and gives the text a modern look and feel. Subheads help students locate important topics, show how that content develops within the section, and break the presentation into “bite-sized” portions that are easier to comprehend and connect.

5. Strengthened emphasis on the strategies needed to solve problems and master the content

- **Passages explaining important problem-solving strategies** – content the student must learn – are clearly labeled with a LEARN THE STRATEGY label. Follow-up problems that require students to apply the just learned strategy are labeled with a USE THE STRATEGY label. These labels, which are implemented throughout the entire text, allow students to easily find important content and practice its use.

About the Book

6. NEW and UPDATED! New and restructured features give students additional conceptual and skill building support

- **UPDATED! Tutorial spreads and Design a Synthesis** sections explicitly highlight essential skills.
- **NEW! Marginal notes** highlighting relative reactivity and the Organizing What We Know feature now align with each other to better relate skill building to conceptual understanding.
- **Newly highlighted Problem-Solving Strategies** guide students on how to approach various problems and help to develop critical thinking skills. See more at: <http://www.pearsonhighered.com/educator/product/Organic-Chemistry-Plus-MasteringChemistry-with-eText-Access-Card-Package/9780321803078.page#sthash.8kPWNclB.dpuf>
- **Seven special Design A Synthesis sections** introduce and help students through the iterative process of solving complex problems.
- **End of chapter Reaction Summaries** ensure students fully grasp how each reaction occurs.
- **NEW and UPDATED! Applications boxes** connect the discussion to Medical, Environmental, Biological, Pharmaceutical, Nutritional, Chemical, Industrial, Historical, and General applications, and help students relate the material to real life and potential future careers. Bruice provides more of this kind of material than any other competing text on the market.

7. Redesigned Organizing What We Know about the Reactions of Organic Compounds feature

- This informative and powerful table summarizes Bruice's approach to teaching organic chemistry by categorizing all organic reactions into four groups having similar chemical behavior.
 - Group I: electrophilic addition reactions
 - Group II: nucleophilic substitution reactions and elimination reactions
 - Group III: nucleophilic addition reactions and nucleophilic addition–elimination reactions
 - Group IV: electrophilic (and nucleophilic) aromatic substitution reactions
- The table builds as students gain knowledge about groups of organic compounds as they work through the text. The easy to interpret table emphasizes the key characteristics common to the group of organic compounds covered in preceding chapters.

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Adopters of Bruice, Organic Chemistry 7e

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