

"Plate tectonics is the topic that made me want to become a geologist. I've waited for nearly two decades for the book that would help convey my interest in this topic to undergraduate students. The online exercises, emodule, and animations are especially valuable teaching aids. I plan to switch to this textbook right away."

Professor Sarah Titus, *Carleton College*

"Plate tectonics is the most rapidly evolving field within Earth science and this textbook provides students with a comprehensive, 21st-century overview of the latest discoveries and changes of opinion. It is a highly valuable resource for all geoscience educators."

Professor Richard Palin, *University of Oxford*

"Incredibly detailed and thorough, well-referenced and grounded in the literature, this book makes complex concepts accessible, through the use of detailed and beautiful color figures. I highly recommend this text for any upper-level undergraduate or graduate plate tectonics course."

Professor Cara Burberry, *University of Nebraska–Lincoln*

"This highly accessible and beautifully illustrated book provides a comprehensive summary of progress over the past 50 years of research on plate tectonics in decoding the imprint of plate interactions through the lens of modern structural geology."

Professor Jeffrey A. Karson, *Syracuse University*

This advanced undergraduate textbook provides a thoroughly modern overview of plate tectonics and is the perfect resource for a capstone course for geology majors. It presents plate tectonics as a multifaceted and interdisciplinary theory that unites many different geological observations and processes into a unique and harmonious model, so that readers grasp how the outer part of our planet works in relation to the deep interior. Supported by clear prose, helpful analogies, and stunning color imagery, readers will gain an in-depth understanding of how and why plates interact to produce different topography, rock assemblages, and deformation features along plate boundaries.

Key features:

- An author pairing renowned for their research, teaching, and textbook-writing experience
- Comprehensive coverage for a single-semester course without being overwhelming
- A unifying presentation that synthesizes and connects topics covered earlier in a geoscience curriculum
- An emphasis on understanding processes and physical fundamentals, with an accessible introduction to quantitative topics
- Up-to-date scholarship that explores some of the latest research questions in Earth science
- A comparison of tectonic processes on Earth with other terrestrial bodies and discussion of the latest evidence and theories for the evolution of tectonics through geologic time
- Data and imagery from a variety of global settings connecting the theory with geological phenomena seen in the field
- A spectacular range of color photos, maps, models, and schematics to illustrate important concepts and convey the vibrancy of the topic
- Student-friendly features that chart clear paths through every chapter, including learning objectives, highlighted statements, focus boxes that explore key concepts, end-of-chapter summaries, review questions, and a glossary



Online Resources www.cambridge.org/platetectonics

For students

- ▶ Quantitative exercises utilizing a range of interactive online visualization and mapping tools
- ▶ Animations
- ▶ Extensive interactive e-module
- ▶ Curated set of recommended websites
- ▶ Glossary flashcards

For instructors

- ▶ Electronic images in jpeg and PowerPoint formats
- ▶ Sample answers to end-of-chapter review questions
- ▶ Solutions to quantitative exercises

Cover image: Nejc Gostincar, via Getty Images. The Mid-Atlantic Ridge at Thingvellir, Iceland, is a unique location where the divergent boundary between the North American and Eurasian tectonic plates can be observed on land.

Cover design: Andrew Ward



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