Geosystems: An Introduction to Physical Geography, Fourth Canadian Edition Plus MasteringGeography

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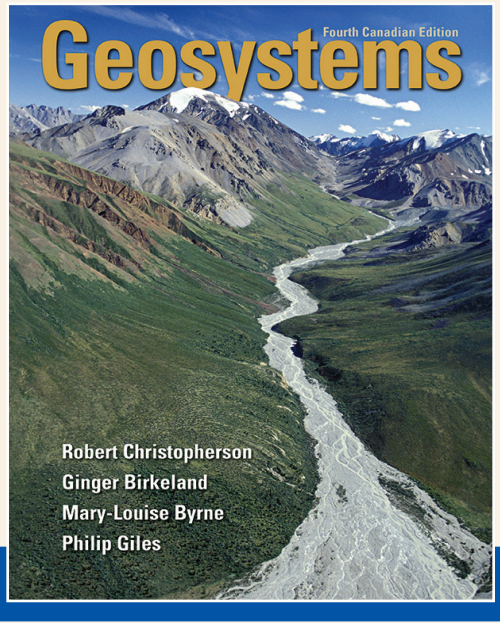

Available February 2015!

Text plus MasteringGeography
9780134045726

Text w/out MasteringGeography
9780133405521

Respected for its scientific accuracy, currency and thoroughness, and for its integration of high quality figures and photos, Christopherson/Byrne/Giles, **GEOSYSTEMS** Fourth Canadian edition is the name you can trust with the content your students will read.

Students and teachers appreciate the systems organization, scientific accuracy, integration of figures and text, clarity of the summary and review sections, and overall relevancy to what is happening to Earth systems in real time. Geosystems continues to tell Earth's story in student-friendly language.

New

- *A new chapter on climate change.* Although climate change science affects all systems and is discussed to some extent in every chapter of Geosystems, we now present a stand-alone chapter covering this topic – Chapter 11, Climate Change. This chapter covers paleoclimatology and mechanisms for past climatic change (expanding on topics covered in Chapter 17 in previous editions), climate feedbacks and the global carbon budget, the evidence and causes of present climate change, climate models and projections, and actions that we can take to moderate Earth's changing climate.
- *A new Geosystems in Action feature* focusing on key topics, processes, systems, or human—Earth connections. In every chapter, Geosystems in Action is a oneto two-page highly visual presentation of a topic central to the chapter, with active learning questions and links to media in MasteringGeography, as well as a GeoQuiz to aid student learning.
- *A new feature, The Human Denominator,* that links chapter topics to human examples and applications. At the end of Chapters 2 through 20, this new feature includes maps, photos, graphs, and other diagrams to provide visual examples of many human—Earth interactions.

Brief Contents

Chapter 1 Essentials of Geography

Part I The Energy–Atmosphere System
Chapter 2 Solar Energy to Earth and the Seasons
Chapter 3 Earth's Modern Atmosphere
Chapter 4 Atmosphere and Surface Energy Balances
Chapter 5 Global Temperatures
Chapter 6 Atmospheric and Oceanic Circulations

Part II The Water, Weather, and Climate Systems
Chapter 7 Water and Atmospheric Moisture
Chapter 8 Weather
Chapter 9 Water Resources
Chapter 10 Global Climate Systems
Chapter 11 Climate Change

Part III The Earth–Atmosphere Interface
Chapter 12 The Dynamic Planet
Chapter 13 Tectonics, Earthquakes, and Volcanism
Chapter 14 Weathering, Karst Landscapes, and Mass Movement
Chapter 15 River Systems
Chapter 16 Oceans, Coastal Systems, and Wind Processes
Chapter 17 Glacial and Periglacial Landscapes

Part IV Soils, Ecosystems, and Biomes
Chapter 18 The Geography of Soils
Chapter 19 Ecosystem Essentials
Chapter 20 Terrestrial Biomes

Appendix A Maps in this Text and Topographic Maps
Appendix B The Köppen Climate Classification System
Appendix C The 12 Soil Orders of the U.S. Soil Taxonomy
Appendix D Common Conversions

Instructor / Student Resources

- MasteringGeography
- Television for the Environment Earth Report Geography Videos on DVD (0321662989).
- Geoscience Animation Library 5th edition DVD- ROM (0321716841).
- Practicing Geography: Careers for Enhancing Society and the Environment (0321811151).
- Teaching College Geography: A Practical Guide for Graduate Students and Early Career Faculty (0136054471).
- Aspiring Academics: A Resource Book for Graduate Students and Early Career Faculty (0136048919).

Instructor Resources

- Learning Catalytics
- Instructor Resource Manual
- TestGen
- PowerPoint Presentations
- Image Library
- CRS "Clicker" Questions

Student Resources

- Applied Physical Geography - Geosystems in the Laboratory, Ninth Edition (0321987284)
- Companion website for Applied Physical Geography: Geosystems in the Laboratory.
- Goode's World Atlas, 22nd Edition (0321652002).
- Pearson's Encounter Series.
- Dire Predictions: Understanding Global Warming by Michael Mann, Lee R. Kump (0136044352).

Features

- *Contemporary Opening Cases:* We open each chapter with a real-world example–drawn from either policy issues in the news or the business world–to help students begin the chapter with a greater understanding that the material to be covered is directly relevant. We revisit the examples within chapters to reinforce the link between macroeconomics and the real world
- *Making the Connection* features use relevant, stimulating, and provocative news stories, many focused on pressing policy issues.
- Some chapters include a *Macro Data feature* that explains the sources of macroeconomic data and often cites recent studies using data. This feature helps students apply data to a recent event. An exercise related to each feature appears at the end of the chapter so instructors can test students' understanding.
- While most students have few problems, alerting students to potential errors improve learning outcomes. We also added a few *Useful Math features* that help with understanding formula derivations.