



This second edition of *Fundamentals of Geophysics* has been completely revised and updated, and is the ideal geophysics textbook for undergraduate students of geoscience with only introductory level of knowledge in physics and mathematics.

Presenting a comprehensive overview of the fundamental principles of each major branch of geophysics (gravity, seismology, geochronology, thermodynamics, geoelectricity, and geomagnetism) this text also considers geophysics within the wider context of plate tectonics, geodynamics, and planetary science. Basic principles are explained with the aid of numerous figures, and important geophysical results are illustrated with examples from scientific literature. Step-by-step mathematical treatments are given where necessary, allowing students to easily follow the derivations. Text boxes highlight topics of interest for more advanced students.

Each chapter contains a short historical summary and ends with a reading list that directs students to a range of simpler, alternative, or more advanced resources. This new edition also includes review questions to help evaluate the reader's understanding of the topics covered, and quantitative exercises at the end of each chapter. Solutions to the exercises are available to instructors.

Praise for the first edition of *Fundamentals of Geophysics*:

"Bill Lowrie is to be congratulated with this superb effort. I highly recommend this volume as a must-have, middle-level, highly instructive textbook that makes for enjoyable reading at an easily affordable price."

Tectonophysics

"A book like this defines the subject... The scientific treatment is meticulous. Each topic is described precisely and clearly... an excellent resource for the intermediate student."

Physics of the Earth and Planetary Interiors

"This superb textbook manages to bear the weight of the complex mathematics associated with the study of the Earth's surface and interior. William Lowrie simplifies the maths to about second-year degree level... an excellent textbook."

New Scientist

"The book is well illustrated and clearly presented. I have already found it helpful in teaching second-year geology students and have no doubt that it will be a useful reference book for undergraduates."

Geological Magazine

Cover illustration: map showing the age of the ocean floor, courtesy of Dietmar Müller, University of Sydney (Müller, R.D., Sdrolias, M., and Gaina, C., 2006).

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Additional resources available at www.cambridge.org/9780521675963

- electronic copies of all the figures
- password-protected solutions for the use of instructors

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