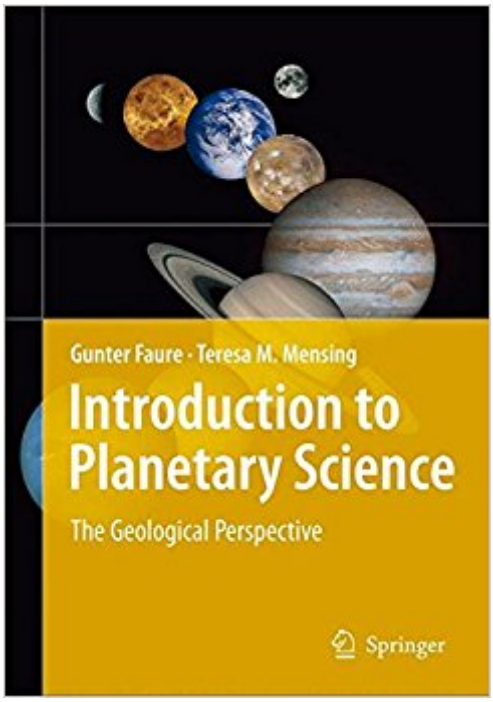
Introduction To Planetary Science: The Geological Perspective



Synopsis

This textbook details basic principles of planetary science that help to unify the study of the solar system. It is organized in a hierarchical manner so that every chapter builds upon preceding ones. Starting with historical perspectives on space exploration and the development of the scientific method, the book leads the reader through the solar system. Coverage explains that the origin and subsequent evolution of planets and their satellites can be explained by applications of certain basic principles of physics, chemistry, and celestial mechanics and that surface features of the solid bodies can be interpreted by principles of geology.

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Customer Reviews

From the reviews:"The authors Ã¢â ¬Â¦ have produced a book that is remarkably up to date, nicely illustrated, and written in an engaging style. An especially effective touch us that each chapter ends with one or more scientific briefs Ã¢â ¬Â¦ . presents an abundance of fascinating information about our cosmic neighborhood, in a form that is readily accessible to students majoring in Earth science. This text will significantly improve teaching and learning about planetary geoscience, and I will be using it for my own undergraduate course Ã¢â ¬Â¦ ." (Hap McSween, Elements, Vol. 4 (1), 2008)"This book should be used as the basis for a capstone course for senior undergraduates and beginning graduate students majoring in the Earth sciences. Ã¢â ¬Â¦ The book is fairly well up to date in terms of discoveries Ã¢â ¬Â¦ . Positive points about the book include clear and abundant illustrations and a well-chosen reference list at the end of each chapter. Ã¢â ¬Â¦ well-bound and well-illustrated book. Ã¢â ¬Â¦ is comprehensive and balanced in its coverage of bodies in the solar

system." (David A. Rothery, Eos, Vol. 89 (15), 2008)"When I was asked to review this textbook, I immediately said yes. I expected that I would enjoy reading the book and that I would undoubtedly learn from it either new facts or methods of presenting facts and their interpretation to students. I was not disappointed; in fact, I was delighted. The book captures the essence of modern planetary science in 24 chapters. The chapters do not overload the reader with an abundance of factual details and their interpreatations but instead present issues at a level that can be clearly understood by majors and nonmajors alike but without compromising the science. The book is clearly excellent - if not outstanding - for use in a course for nonmajors, and I highly recommend it. ... The book is not organized in what I consider to be a classic approach, which is actually a delightful change, and it works very well. In addition, the "science briefs" at the ends of chapters are a wonderful affirmation of each theme. Overall, the book is excellent."(Harold C. Connolly Jr, The Journal of Geology, Vol. 116, p. 313, 2008)"Introduction to Planetary Sciences Ã¢â ¬â œ the Geological Perspective Ã¢â ¬Â¦ is the brain-child of Gunter Faure and Theresa M. Mensing. Ã¢â ¬Â¦ this text not only helps me to acquire new teaching material for my lecture classes, but also exposes me to the latest cosmologic discoveries, told from a geologic point of view. Ã¢â ¬Â¦ . It is the authorsÃ¢â ¬â„¢ unique ability to intertwine a strong dose of geology, with planetary science, in an easy to understand presentation, that generates the appeal of this book." (Joseph F. Born Jr., American Association of Petroleum Geologists, Vol. 92 (5), May, 2008)"A fascinating look at the worlds of our Solar System.In this excellent textbook, Faure and Mensing succinctly and clearly describe what our Solar System is made of and how it works. Each planet is described in detail-its geology, history, satellites, chemistry, and orbital mechanics. The latest planetary knowledge is presented, and the book is very up-to-date on the latest developments in planetary science, with plenty of new information gleaned from the Hubble Space Telescope and the Cassini Probe. Principles of physics, chemistry, and geology as they pertain to the planets and their celestial mechanics are presented and every chapter is very well-written, clear, and fascinating. The excellent text is complemented by many brilliant and fascinating pictures in every chapter, including new pictures of the surface of Titan from the Cassini Probe. The high quality of the pictures was a major factor which induced me to buy this book! I would recommend this as a textbook for a geology class, and for anyone at all who has at least a basic background in science and wants to know more about the other worlds in our solar system and how they operate. It’s not a cheap book but it’s worth every penny." (Gordon Trunk, Minneapolis, MN, USA, December 11, 2008)Ã¢â ¬Å“This book is a comprehensive review of the current knowledge of planetary sciences. Ã¢â ¬Â¦ The book is best suited for upper division undergraduate students and for beginning graduate students. Ã¢â ¬Â¦ a reference book on

planetary sciences that will serve well the shelves of all Earth scientists. Ã¢â ¬Â¦ Due to its holistic and complete approach of the Universe and the EarthÃ¢â ¬â„¢s place within the Universe, this book will benefit not only people involved in the planetary sciences but also all those involved in Earth Sciences.Ã¢â ¬Â• (Susana CustÃƒÂ dio, Pure and Applied Geophysics, Vol. 166, 2009)Ã Â

This textbook is intended to be used in a lecture course for college students majoring in the Earth Sciences.Ã Â Planetary Science provides an opportunity for these students to apply a wide range of subject matter pertaining to the Earth to the study of other planets of the solar system and their principal satellites.Ã Â As a result, students gain a wider perspective of the different worlds that are accessible to us and they are led to recognize the Earth as the only oasis in space where we can live without life-support systems. The subject matter is presented in 24 chapters that lead the reader through the solar system starting with historical perspectives on space exploration and the development of the scientific method. The presentations concerning the planets and their satellites emphasize that their origin and subsequent evolution can be explained by applications of certain basic principles of physics, chemistry, and celestial mechanics and that the surface features of the solid bodies in the solar system can be interpreted by means of the principles of geology. Organized in a hierarchical manner so that every chapter builds on preceding ones Abundantly illustrated with diagrams and color images Includes problem sets and a glossary

This is for College and meets my requirements

Very happy with the purchase and the service, thanks

Over the years I have been through numorous textbooks for various science classes and I have to say that this is by far one of the best textbooks that I have ever gotten my hands on. My professor made us get this for class and now I can see why. Excellent book, well written. Only downfall is that it is not a print copy, but I gave it 5 stars due to the amazing content and the fact that you can choose how long you would like to rent it. This worked very well for my class time and I will be upset when I can’t use it anymore because it seems like a book that I would like to read outside of class. May have to purchase it for my own use after the semester.

This book primarily covers planetary formation, weathering and topography, but it does cover some orbital mechanics, atmospherics, history of space exploration, meteorites and the origin of the

universe.

The writers should have done research into physics. In Chapter 1, when they justify circular orbits by using centrifugal force, they lost my respect. Any high school physics student knows there is no such thing as centrifugal force. Now I can't help wondering what else in the book is inaccurate. There are a lot of facts and data, but I keep wondering what else is buried in the prose that is scientifically WRONG!

In this excellent textbook, Faure and Mensing succinctly and clearly describe what our Solar System is made of and how it works. Each planet is described in detail-its geology, history, satellites, chemistry, and orbital mechanics. The latest planetary knowledge is presented, and the book is very up-to-date on the latest developments in planetary science, with plenty of new information gleaned from the Hubble Space Telescope and the Cassini Probe. Principles of physics, chemistry, and geology as they pertain to the planets and their celestial mechanics are presented and every chapter is very well-written, clear, and fascinating.The excellent text is complemented by many brilliant and fascinating pictures in every chapter, including new pictures of the surface of Titan from the Cassini Probe. The high quality of the pictures was a major factor which induced me to buy this book!I have only one criticism, and that is that the book contains a large amount of typographical errors, which are very incongruous with the high quality of the information and pictures presented. It seems there is a spelling error on almost every other page, which is very strange for a book of this quality. For this reason, I would give it four and a half stars if that were an option, but I'll err on the side of generosity and give it five. The typographical errors are easy to ignore and do not detract from the text itself. Hopefully the next edition of the book will correct this problem.I would recommend this as a textbook for a geology class, and for anyone at all who has at least a basic background in science and wants to know more about the other worlds in our solar system and how they operate. It's not a cheap book but it's worth every penny.

(Cambridge Planetary Science Old) Planetary Science: Explore New Frontiers (Inquire & Investigate) Beyond Jupiter: The Story of Planetary Astronomer Heidi Hammel (Women's Adventures in Science (Joseph Henry Press)) Planetary Herbology: An Integration of Western Herbs into the Traditional Chinese and Ayurvedis Systems An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It Cloud of the Impossible: Negative Theology and Planetary Entanglement (Insurrections: Critical Studies in Religion, Politics, and Culture) Counter-Imperial Churching for a Planetary Gospel: Radical Discipleship for Today JPL and the American Space Program: A History of the Jet Propulsion Laboratory (The Planetary Exploration Series) Living in the Light: A Guide to Personal and Planetary Transformation Astrological Transits: The Beginner's Guide to Using Planetary Cycles to Plan and Predict Your Day, Week, Year (or Destiny) Planetary Rovers: Robotic Exploration of the Solar System (Springer Praxis Books) Handbook of Paleozoology (Johns Hopkins studies in Earth and planetary sciences) GURPS Traveller Planetary Survey 4: Glisten GURPS Traveller Planetary Survey 5: Tobibak: The Savage Sea Aspects in Astrology: A Guide to Understanding Planetary Relationships in the Horoscope