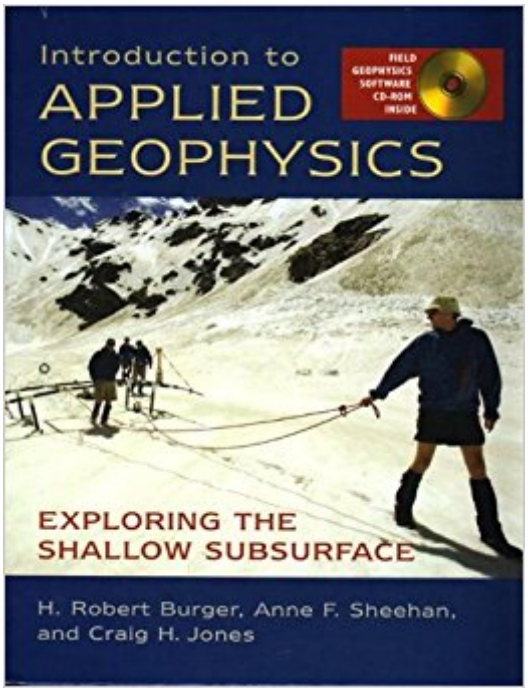
Introduction To Applied Geophysics: Exploring The Shallow Subsurface



Synopsis

Introduction to Applied Geophysics covers the fundamental principles and common methods of exploration geophysics, preparing students for field study of the shallow subsurface. Offering a chapter on each of the most common methods of exploration, the text explains in detail how each method is performed and discusses that methodâ ™s geologic, engineering, and environmental applications. In addition to ample examples, illustrations, and applications throughout, each chapter concludes with a problem set. The text is also accompanied by the Field Geophysics Software Suite, an innovative CD-ROM that allows students to experiment with refraction and reflection seismology, gravity, magnetics, electrical resistivity, and ground-penetrating radar methods of exploration.

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Customer Reviews

This is a great starter book for a Geophysics/Geology student. It incorporates the mathematics as well as the basic premisses needed for an understanding of a complex, developing and ever-changing science. It is to be used for my senior geophysics class and I have read the book to prepare for the class itself. Parts of this book could be used for advanced high school students although the derivation of equations would be beyond the scope of the vast majority of high school students. -Karl-

Applied geophysics is inherently a mixture of first physics and math with geology (hence the ’applied’). This text introduces the geophysics from a relatively basic toolset of both math and

physics. As appropriate for most college texts, this book does assume some basic understanding of geometry and calculus, but the derivations are straightforward with excellent examples both in figures and in the included cd.This text is extremely readable and useful for obtaining a basic understanding of the majority of applied geophysical techniques used today. Even so, some methods such as magnetotellurics and induced polarization are given only a passing glance in the attempt at truly keeping this text an "introduction".While maybe not the answer to all applied geophysical questions, overall this text is excellent. Without the math (and thus the physics), geophysics is powerless.I used this text in a senior-level applied geophysics course and have since moved on to graduate school. I return to Burger’s book when I need a simple refresher of the basic equations and principles while leaning on Telford’s Applied Geophysics for the more serious questions. Milsom’s Field Geophysics (Geological Field Guide) is another great introductory pocket-sized text for refreshers both in the field and when cracking out a problem set.

Not a great book. Lots of typos, for example: 7+5=8 on a diagram (???) amongst other typos in equations. The software that comes with it is really buggy. They also do not include many example problems and all the diagrams are in black and white. I think color would really improve their readability.

This textbook is a good resource to supplement an introductory geophysics course. It is sometimes a bit difficult to follow, but it is overall excellently formatted. There are a few formula errors in the book, so be aware of some equations seeming a bit off from what was described. I have noticed that some versions of the book come with an error sheet to help point out mistakes. I would recommend this text to any student taking an introductory geophysics course, or just needing an overview of the subject matter.

This is without a doubt the worst textbook I have ever had the poor fortune to be forced into reading. It doesn’t even define it’s terms (try "energy partitioning", for example; or "normal move-out"); the authors quite often refer to figures and formulas in the book without giving page numbers (no, they are often NOT nearby the pertinent text, making it necessary to thumb through entire sections looking for them and causing the reader to lose the thread entirely); they derive mathematical formulas unnecessarily, making it a royal pain to wade through (mathematicians would probably like this, but I want to learn Geophysics-I have already been through my requisite math courses, thank you very much!); and their meaning is often obscure and unclear. The authors (surprising that it took

three people to write this mess) assume that the reader is already familiar with the topic, and this in an introductory book (apparently, no-one was given the chance to review it critically before publishing.) I recommend that anyone interested in learning introductory Geophysics stay away from this one! BOO!! I want my $ back!!!

I used this book in my applied geophysics course and it is by far the best written textbook I've ever read. The author is clear, concise, and explains things beautifully. It reads like he's talking to you, and the mathematical derivations of the equations are very easy to follow.I highly recommend this book to anyone looking for a solid introductory textbook in applied geophysics. It's a bit of a math-based text, but it is also great at explaining the concepts behind the methods with simple diagrams and well-phrased explanations.PS - it comes with a CD-ROM of great resources (very basic software programs and some spreadsheets) to help you understand the data processing that is done with each method.

Good book, but it gets a little technical even for a genius in everything like me. All the equations that you need are in there, but the way the book explains the information is a little hard to get. I hope your prof is not a hard ass (that's what she said).

I purchased this book purely for review. Been away from near-surface geophysics for a while, and want to step back, but I feel wouldn't be as valuable to the future employer without a bit of a review... Having said that, one must know their equations, and theories. This is not something you pick up and use to teach yourself geophysics. There is a CD included with this, I haven't used it as of yet... I have another book from my school days from SEG about near surface geophysics, I think the combination of these two books would work better.[...]

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