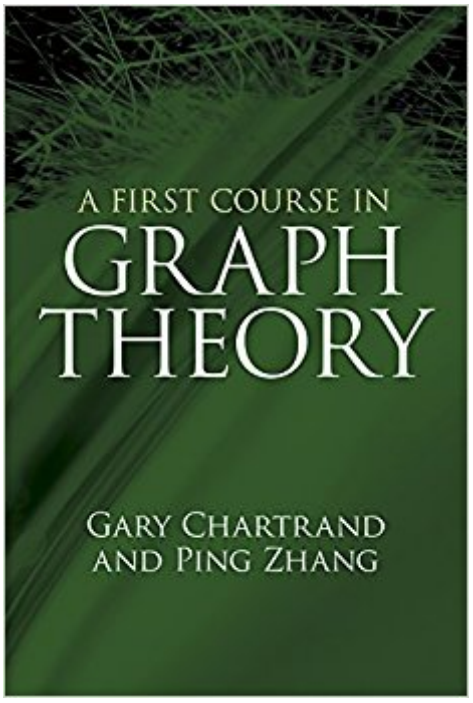
A First Course In Graph Theory (Dover Books On Mathematics)



Synopsis

This comprehensive text offers undergraduates a remarkably student-friendly introduction to graph theory. Written by two of the field’s most prominent experts, it takes an engaging approach that emphasizes graph theory’s history. Unique examples and lucid proofs provide a sound yet accessible treatment that stimulates interest in an evolving subject and its many applications.Optional sections designated as "excursion" and "exploration" present interesting sidelights of graph theory and touch upon topics that allow students the opportunity to experiment and use their imaginations. Three appendixes review important facts about sets and logic, equivalence relations and functions, and the methods of proof. The text concludes with solutions or hints for odd-numbered exercises, in addition to references, indexes, and a list of symbols.

Book Information

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Customer Reviews

This is about as intro of a course to Graph theory that you can find. Even if you know graph theory this actually has alot of coverage I have not seen in many texts.It is more extensive of treatment than you will find in a discrete math textbook. This has both some of the standard metaphors employed in texts and a few very good orginal metaphors.Where this book really shines is the author really drives home how to transform applied problems into graph theory. Most books show you applied problems, but fail to inspire and give the student the ability to explore their own problems into graphs. This book does that every chapter.The student is eased into concepts, and then more depth is added through examples and theorems. There are excellent applied problems

and examples.Chartland’s other book on graph theory has great examples and applications, however, this book has fewer but provides better instruction.This is a great self-study, especially if you had graph theory in another textbook and want more but are not ready for a purely proof/theorem approach taken by alot of the more rigorous texts.

I am a not a Math major but this book helped me learn Graph Theory on my own. It was full of illustrations, and the organization is really good. Most of the famous theorems are accompanied by their proofs.

I will offer a brief review from the perspective of an instructor. I like this text quite a bit. It covers all the fundamental topics one would expect to see in an intro graph theory course. In fact, there is more than enough material to fit in one semester. Also, there are enough challenging excursions for interested and/or talented students. The exercises follow the typical order, that being relatively easy to more difficult. Overall, a good book with a clear and precise exposition.

I’m using this book as supplemental reading to another good book on Graph Theory (Gross and Yellen).I find the presentation of Professors Chartrand and Zhang very engaging, lucid and fluid.The book does a great job in making abstract theorems tangible and building the student’s intuition.Finding a book of this quality at this price point is a rarity these days...And the two professors should be praised for bringing this book to market.Hopefully, it will serve to popularize this very interesting field of mathematics.

I loved this book !"As everyone else", the first book I came across was the Diestel, "Graph Theory" book.Even though it was clear and complete, It was not agreeable to read. And some proofs sometimes (it’s rare, I have to admit, but it happens) aren’t very detailed.In the Chartrand-Zhang book, this doesn’t happen. The book is amazingly clear and easy to understand. The details given are not mere pedantry but stand for pedagogical material. Adding to that a good load of historical facts and funny anecdotes about mathematicians, we can say we have a great book here ! And for a more than reasonable price (to change...).

This book does a good job of covering the fundamentals of graph theory and should be accessible to anyone comfortable with basic set theory and linear algebra. The odd-numbered problems have solutions or hints in the back, making it handy for self-study.

Simply awesome.. If you are going into high end development or you are a college kid.. It will benefit both!I was trying to understand data mining and graph databases! Graph theory and standard results about graphs will benefit you hugely before you dive into those fields.

I taught a special topics undergraduate course from this book, to a class of about 10 students. One of my favorite classes ever, in a 20+ year career. The authors did a lovely job of organizing topics into chapters that form a thorough but readable sampler. There are excellent exercises also to explore each topic. I highly recommend this to anyone wanting to learn about Graph Theory through self-study, or to other instructors wanting a sound introductory textbook. I am so glad it is available from Dover too!