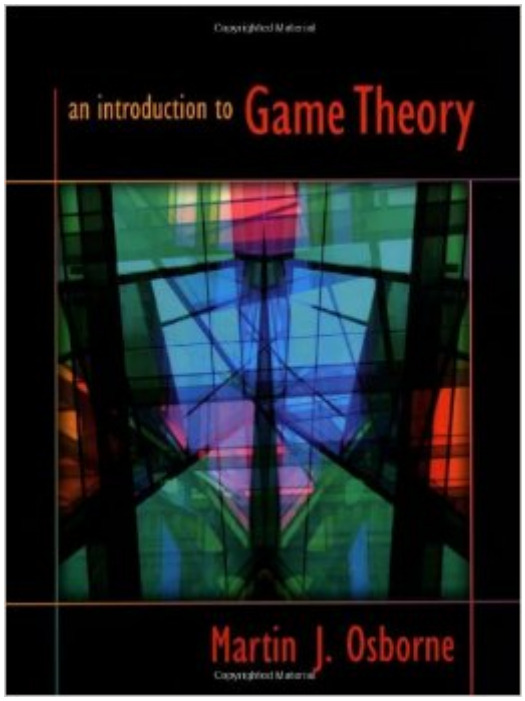
An Introduction To Game Theory



Synopsis

Game-theoretic reasoning pervades economic theory and is used widely in other social and behavioral sciences. An Introduction to Game Theory, by Martin J. Osborne, presents the main principles of game theory and shows how they can be used to understand economic, social, political, and biological phenomena. The book introduces in an accessible manner the main ideas behind the theory rather than their mathematical expression. All concepts are defined precisely, and logical reasoning is used throughout. The book requires an understanding of basic mathematics but assumes no specific knowledge of economics, political science, or other social or behavioral sciences. Coverage includes the fundamental concepts of strategic games, extensive games with perfect information, and coalitional games; the more advanced subjects of Bayesian games and extensive games with imperfect information; and the topics of repeated games, bargaining theory, evolutionary equilibrium, rationalizability, and maxminimization. The book offers a wide variety of illustrations from the social and behavioral sciences and more than 280 exercises. Each topic features examples that highlight theoretical points and illustrations that demonstrate how the theory may be used. Explaining the key concepts of game theory as simply as possible while maintaining complete precision, An Introduction to Game Theory is ideal for undergraduate and introductory graduate courses in game theory.

Book Information

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Customer Reviews

I have quite a few game theory books, including the Fudenberg and Tirole, the Gibbons, the Mayerson and the other Osborne book. This one is absolutely the best introductory book you will

find. The writing is extremely clear, with no unnecessary math, but with very rigorous treatment of concepts and theorems. The author makes remarkable effort in explaining the stuff, and succeeds beyond my expection in offering intuitions and ideas behind the concepts and theorems. It is a perfect intro-level book, if what you want is the combination of accessibility, rigor, and comprehensiveness.

I used Osborne’s book for an introductory course on game theory I took as an undergraduate. While Osborne provides a great general overview of game theory, I find this book lacking in a number of respects.First, theorems are presented in this book inuitively, as opposed to rigorously. Therefore, in place of using proofs to justify a theorem or a given result, many of the theorems are illustrated through words. This method, however, proves to be confusing at many points in the book.In addition to this, the book is heavily invested in the use of examples to illustrate the numerous applications of particular theorems or results. While I generally applaud the extensive use of examples, this also proves to be very confusing at times since the logical steps Osborne seems to make are not always explicitly stated. This caused me some trouble in trying to solve several problems in the textbook. The one saving grace was that Osborne has posted several (though not all) solutions on his website.This book does require knowledge of algebra and a little calculus. Some microeconomic theory wouldn’t hurt, either--especially for the sections on Stackelburg and Cournot duopolies. Becuase most economics programs in the US stress mathematics, I would recommend an alternative textbook that is more rigorous. Principally, I used Roger Myerson’s "Game Theory: Analysis of Conflict" to supplement the shortcomings of this book. Myerson’s book is thoroughly rigorous and is, I believe, used as a graduate textbook for game theory in many departments. If, however, you are interested in a general overview of the field or do not feel comfortable with technical mathematics, I would definately recommend this book.

As a grad student preparing for his comprehensive exams, I searched long for an exemplary introduction to game theory. The descriptions of this book which I found on the web led me to believe Osborne’s book was the one I needed. The book starts off promising enough. The preface exclaims that "the only way to appreciate the theory....is to put it into action" and that over 280 exercises will allow you to do this.Then comes the part they don’t tell you - those 280+ exercises have no solutions. They are not included in the text. Even after contacting the author he refused access to the solutions.So what may have just been the best intro to game theory ever done is useless to a self-motivated learner. The only purpose I can see that it serves is as a required text

book for a course.Bottom line - unless you HAVE to have this for a class, don’t waste your money. It will be very wisely spent elsewhere.

This is a into great book that works well in companion with the more advanced "A Course in Game Theory," by Osborne and Rubinstein. That said it is not layperson’s guide to Game Theory, if such a thing could possibly exist.Complaints of a pervious reviewer seem unfounded. Yes, game theory requires math. Game thoery, like most other theory, is also not packaged to be directly ported to the "real world." It requires the use of stylized models to make any ground. Figuring out how to apply a subject like game thoery to the real world is not something that can really be conveyed in a book. Rather, one should try to internlize the concepts contained in the thoery by working simple examples.

I had the misfortune of having this book as the required text for a course. It was expensive, unreadable and useless. Osborne avoids basic mathematics to the extent that he uses symmetry to find the turning point of quadratics. This is extremely frustrating because while he shuns basic mathematical techniques and ideas that can make matters simpler, he presents basic game theoretic ideas in a dense, abstruse mass of mathematical symbols. I have a lot more experience in pure mathematics than in economics, but even I found all the symbols and arcane functions difficult to digest, especially when the idea being presented could be expressed FAR more clearly and concisely using a few words.There are no proofs, very few theorems and very few realistic applications. The book is neither suited to those mathematically inclined individuals who are interested in the theoretical game theory nor to those interested in real life applications.If you love mathematics, stay away from this book, the lack of proofs and rigour will frustrate you. If you hate mathematics, stay away from this book, the abstruse symbols and obfuscated explanations will frustrate you.By far the worst textbook I’ve bought.

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