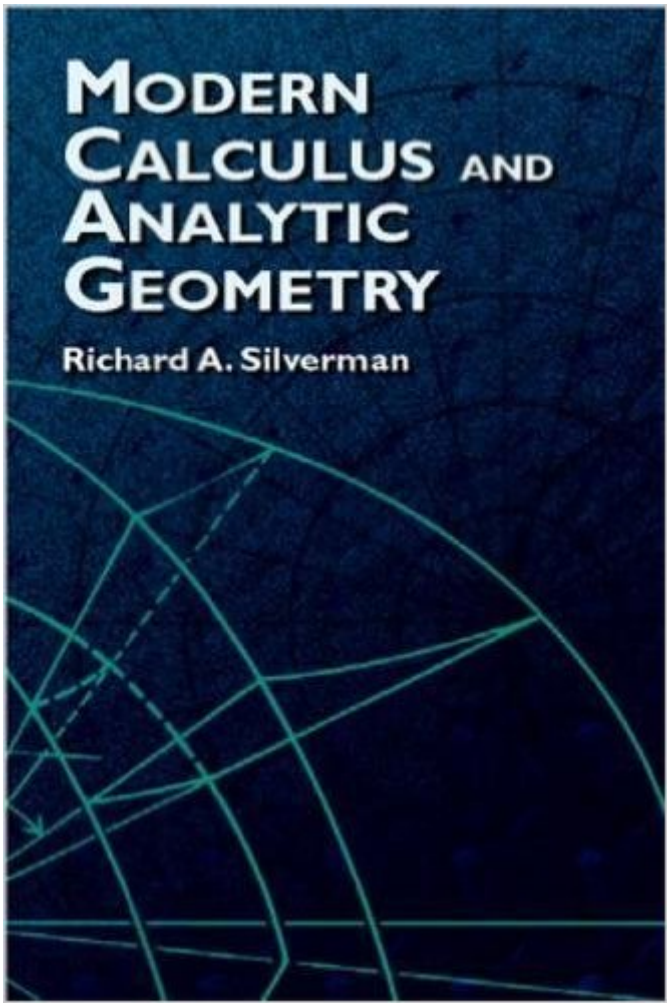
Modern Calculus And Analytic Geometry (Dover Books On Mathematics)



Synopsis

A self-contained text for an introductory course, this volume places strong emphasis on physical applications. Key elements of differential equations and linear algebra are introduced early and are consistently referenced, all theorems are proved using elementary methods, and numerous worked-out examples appear throughout. The highly readable text approaches calculus from the student's viewpoint and points out potential stumbling blocks before they develop. A collection of more than 1,600 problems ranges from exercise material to exploration of new points of theory Ã¢â ¬â • many of the answers are found at the end of the book; some of them worked out fully so that the entire process can be followed. This well-organized, unified text is copiously illustrated, amply cross-referenced, and fully indexed.

Book Information

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Customer Reviews

Dr. Richard A.Silverman was truly a one-of-a-kind scholar, teacher, mathematician, and gentleman with a keen grasp of just how to bring some of the more complicated formalisms of modern mathematics at least within reasonable and graspable proximity of his many students. I must admit that I did not use Dr. Silverman's book in studying the differential and integral calculus. I only wish that I had, particularly because of Dr. Silverman's unique ability to gently get his students involved with problem-solving. In the process of this latter, he rarely if ever forgot the necessary intermediate steps of, say, a proof or the solution of a worked out example. If ever there was a man who was the

living antithesis of those who are more prone to the villainously overworked phrase "it can be easily shown that..", it was Dr. Silverman. It is as if he could easily anticipate those areas of a mathematical discussion which could potentially prove problematic to his young charges in the classroom or those who would eventually study his printed works. Why, the very girth of this work on calculus and analytic geometry alone gives visible testimony to the fact that he is not one to shy away from a clear, albeit at times lengthy, but truly understandable presentation of many a careful explanation of the nature and use of mathematical formalism and problem-solving techniques. I unreservedly recommend this particular work to any student seriously intent upon mastering the rudiments of integral and differential calculus, as well as analytic geometry.

High quality and delivered on time.

Very Informative Book

I bought the Kindle version of this book and so far, in the first couple chapters, there are quite a few errors in the formulas do to typos and what not that are making some of the examples rather confusing. There are also several places where a little more explanation would have been awesome. The solution is kind of shown but no steps on how they got there are shown which means you are left trying to figure things out on your own at times...

It is a pretty thorough book covering multiple important subjects in calculus. I learned much from it.

I have no idea why this book is so little known. It is a great calculus book - rigorous for a calculus course, but very detailed. I have used this book in a calculus class and, aside from complaints of it being a difficult book, the students learned their calculus.Since the book is old (1960’s I believe), it has no clue about graphing calculators. Thus, the graphing sections are very detailed, but somewhat arduous. However, that’s how things were done in those days. Even so, that material could be easily covered in a modern treatment - just have the calculator do all the dirty work - the students get to see how technology has made computations so much more palatable nowadays (but the students could indulge their masochistic side by working all the details).The exposition is extremely detailed and proofs to most (if not all) of the theorems are given. There are many examples in every section, and the author doesn’t shy away from difficult examples. Additionally, while there are many standard calculus problems, there are also a lot of problems that might require

a considerable amount of thought (but simple in retrospect), many theoretical problems, and some downright ugly problems.I think this is a complete calculus book. I used it for calculus 1 and 2. I would have used it for my calculus 3, but my class was a mixture of students from different schools, so I chose not to adhere to a single book for calculus 3.All in all, it’s the kind of a book for someone who wants a rigorous calculus course, like they used to do in the "old days". At the same time, the amount of information in this book is incredible, and completely authoritative, with tons of worked out examples. A lot of attention is paid to things like domain and range, and absolute values (and epsilons and deltas abound), but these things are truly required to really understand calculus.I completely and unapologetically recommend this book. I think that even though it’s an old book, a professor could use it in a modern lecture class.

If you read this book thoroughly.. there will be nothing left you should know, as the Preface also emphasize, it’s nice to have all the theorems proven + Challenging problems...