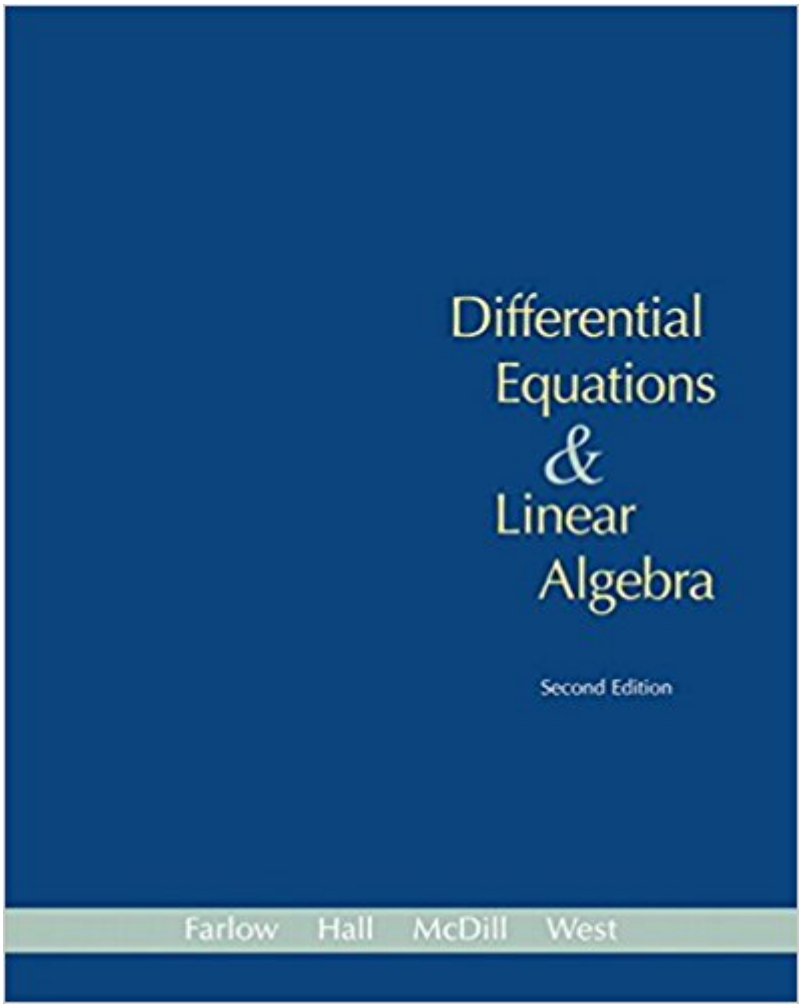
Differential Equations And Linear Algebra (2nd Edition)



Synopsis

For sophomore-level courses in Differential Equations and Linear Algebra. Â Extensively rewritten throughout, the Second Edition of thisÂ flexible text features a seamless integration of linear algebra into the discipline of differential equations. Abundant computer graphics, IDE interactive illustration software, and well-thought-out problem sets make it an excellent choice for either the combination DE/LA course or pure differential equations courses. The authorsâ ™ consistent, reader-friendly presentation encourages students to think both quantitatively and qualitatively when approaching differential equations â ”Â and reinforces concepts using similar methods to solve various systems (algebraic, differential, and iterative).

Book Information

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Customer Reviews

This book is an awful textbook, the examples are the worst and at no point do they endeavor to thoroughly explain how to solve ODEs. This is more of a reference book for refreshing ones memory after already taking the course. I’m so angry that I had to spend 120 bucks on this book when I spent the entire semester using Paul’s online math notes (for free) to learn how to do DEs.

This book has forced me to reference other books on the subject to learn the material. I only use it for the homework assignments. I’m a junior majoring in engineering, and in my opinion their explanation’s are vague and the examples shown prove to be of little help when working the actual problems. Additionally, it continues to introduce new material in the problem section. You’ll have a

question that references new material introduced in a problem they assumed you worked above. It’s pretty appalling to read up on the material in another textbook or through lecture, and then open this book to see how vaguely they explain a subject before quickly moving on. I’m sad my school uses this...

This book is absolutely abhorrent in the way it goes about teaching differential equations. After almost finishing my differential equations class, I still don’t know what a linear operator is. Towards the end of the second chapter, the book’s teaching goes awry when it clumsily tries to explain phase planes and vector fields. Very vague examples that skip 99% of the math are given, each using a different method, before giving a few confusing plots. The examples choose the easiest possible scenarios, leaving you confused for the exercises.If that weren’t bad enough, wait until you hit vector spaces. My god, I had to go to two other resources just to figure out what the book was trying to stumble through. It gives a paltry number of examples before giving you a rundown of common vector spaces. The book refers to them throughout, so if you’re confused, it’s only going to get harder. By the time you hit Chapter 4, the people who wrote this book just stopped caring altogether. Like before, most of the math is skipped, so guessing at solutions to second order equations is literally guesswork when it comes time for the exercises. Early in the chapter they start talking about harmonic oscillators, and we’re supposed to somehow generalize that to all differential equations.In summary, this book is terrible. Buy if needed for a college class for homework only. Anyone looking to learn differential equations should turn to free online resources, which I’m sure explain the material better than this trash.

The only way I use this book is for class assignments. The way that the material is explained in the book is horrid.It doesn’t provide any theoretical background to the new concept or definitions of what the new concept is, just jumps into some vaguely relative example and goes on to the problems section. I am forced to read another book to actually understand the material. If you have a choice, don’t buy this ...(you know).

I understand the frustration expressed by many reviewers who claimed this book to be too advanced. However, that doesn’t make it a bad book. Quite the contrary, if you have some solid understanding of calculus, this is one of the best if not the best book on DE & Linear.I am a freshman majoring in applied math. I strongly recommend the book for several reasons:Firstly, this book "MAKES SENSE" out of math. It does not present math theory just for theory’s sake, as has

been done by most math textbooks. Instead, every section of math is put into context of real world applications. For example, the book starts with the famous Malthus model (which was the first of its kind that attempts to model population growth) to illustrate the meaning and usefulness of mathematical modeling. Moreover, along with the book, great online interactive tools are provided, giving beautiful illustrations and also many chances for the student to actually USE the math he just learned in a previous page.Secondly, the questions are well designed. They are not just problems that help you master the math skills; they give them meanings. Problems are introduced in settings of true models and real world problems. You will also be thrilled to know that MOST of the questions are answered in detail at the back.Therefore I strongly recommend this book to people who have some background in calculus. I even think that non math students should read it. It is not that hard to understand. And, seriously, it does not require a lot of background. Just some calculus. No mathematical analysis or real analysis, man. Just some calculus and you will be able to enjoy it.

The absolute worst textbook I've ever used. The book presents no theory behind the mathematics what so ever, instead it presents a vague trivial example and then assumes that because of their garbage example the reader is then an expert. The examples also have minimal work written out, it presents a question then says what the answer is. The worst of it all is its presentation of vector spaces/subspaces, WORTHLESS. Its description literally says this is abstract so well show you the simplest example then move on, the R^2 space. Some of the problems in the back of the book even cover key material, as if these writers forgot about it and decided to slap it in under some problem in the back of the book. All in all a half-assed book that presents nor discusses any theory of any kind, and fails to clearly describe vector spaces, the most important piece to linear algebra. NO THEORY PRESENTED AT ALL, whats an understanding of math without clear theory behind whats being presented.

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