Contemporary Linear Systems Using MATLAB (Bookware Companion)
**Synopsis**

This book thoroughly integrates the use of the MATLAB computing environment into the standard sequence of courses taken by electrical engineering majors. Use of this text makes it possible to focus on the problems being solved rather than on the programming necessary to obtain a solution. The authors utilize a computer-biased approach in which computer solutions and theory are viewed as mutually reinforcing rather than as an either/or proposition. Additionally, they adhere to the axiom that one learns by doing rather than by listening - this text features more than 100 examples, 200 exercises, and 250 MATLAB scripts that directly support the authors’ flexible treatment of discrete and continuous time.

**Book Information**

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**Customer Reviews**

This was the mandatory text for Digital Signal Processing (DSP). This review was written after taking the course. Coupled with the lectures of the professor that explain clearly the basic, elementary vocabulary and concepts, this book is stellar. This book does not waste time on matters that should be readily obvious at this point such as trigonometry, summations, partial fractions and integration. Only the key steps are shown for the essential knowledge of the subject. The examples in class and the examples in this book are adequate to work the problems at the end of the chapter. The problems are decently rigorous and help show the variations of cases. MATLAB comes along as
well to display its usefulness and versatility. The books specific attention to the program makes it unique, even if this edition is approaching two decades of age. Before embarking this, I would suggest taking differential equations, and an introduction to circuits prior. Perhaps linear algebra as well. Roughly speaking, this is the mathematics of filtering.

I was hunting for a single book which covers the area of signals and systems, communication theory, design (transforms related to these topics) using MATLAB (I have a student version 5.0). Every topic is well illustrated with MATLAB programs along with the associated terms, definitions and the mathematical details along with figures for proper visualization. This book an excellent supplement to standard textbooks in these areas. The presentation is crisp and clear. I experienced the "joy of understanding" while using this text with the software. **GRAB A COPY AND UNDERSTAND THE WORLD OF TRANSFORMS!**

It covers linear control processes well. Best it gives MatLab code for plotting responses and solved problems. It has a 6th order filter called Chebyshev digital filter that has a very near flat top as a band pass in the Bode plot! These methods aren't well covered in my other books and will be of use in studying nonlinear systems as well.

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