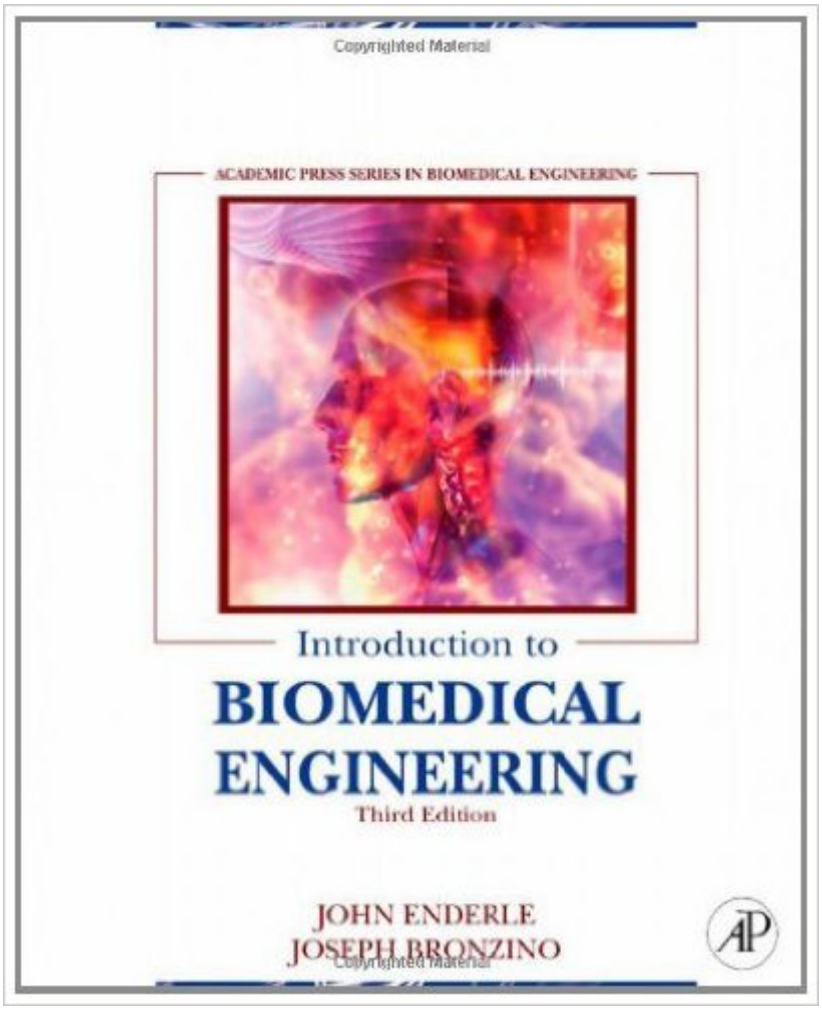
Introduction To Biomedical Engineering



Synopsis

Introduction to Biomedical Engineering is a comprehensive survey text for biomedical engineering courses. It is the most widely adopted text across the BME course spectrum, valued by instructors and students alike for its authority, clarity and encyclopedic coverage in a single volume. Biomedical engineers need to understand the wide range of topics that are covered in this text, including basic mathematical modeling; anatomy and physiology; electrical engineering, signal processing and instrumentation; biomechanics; biomaterials science and tissue engineering; and medical and engineering ethics. Enderle and Bronzino tackle these core topics at a level appropriate for senior undergraduate students and graduate students who are majoring in BME, or studying it as a combined course with a related engineering, biology or life science, or medical/pre-medical course. * NEW: Each chapter in the 3rd Edition is revised and updated, with new chapters and materials on compartmental analysis, biochemical engineering, transport phenomena, physiological modeling and tissue engineering. Chapters on peripheral topics have been removed and made avaialblw online, including optics and computational cell biology. * NEW: many new worked examples within chapters * NEW: more end of chapter exercises, homework problems * NEW: Image files from the text available in PowerPoint format for adopting instructors * Readers benefit from the experience and expertise of two of the most internationally renowned BME educators * Instructors benefit from a comprehensive teaching package including a fully worked solutions manual * A complete introduction and survey of BME * NEW: new chapters on compartmental analysis, biochemical engineering,Â and biomedical transport phenomena * NEW: revised and updated chapters throughout the book feature current research and developments in, for example biomaterials, tissue engineering, biosensors, physiological modeling, and biosignal processing. * NEW: more worked examples and end of chapter exercises * NEW: Image files from the text available in PowerPoint format for adopting instructors * As with prior editions, this third edition provides a historical look at the major developments across biomedical domains and covers the fundamental principles underlying biomedical engineering analysis, modeling, and design *bonus chapters on the web include: Rehabilitation Engineering and Assistive Technology, Genomics and Bioinformatics, and Computational Cell Biology and Complexity.

Book Information

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Customer Reviews

In general a good overview of the field. However, I would not consider this book an introductory text for freshmen, rather for juniors/seniors with strong background in MATLAB, differential equations and physics; which this book assumes.I suppose that uneven difficulty level and quality of content across chapters is the price to pay when you have different authors for each section.I think the addition of pedagogical features such as: learning outcomes, checklists, examples of best practices would greatly improve this book to a level equal or greater than Saltzman’s textbook.

This book reads more like a collection of technical papers than a coherent text. The writing is uneven from section to section, and it flows poorly. Some sections are poorly written, with terms introduced without definition. The section on computers is particularly bad, with focus on topics that are outdated and specifics that no longer apply in today’s world of computing. In several sections the authors go into great detail to no apparent purpose, other than to show off their knowledge of physics, chemistry, and biology.As a reference, this book has utility, and that’s why I gave it two stars rather than one. As a text, it’s lousy, and I take pity on students who are saddled with it.

I gave it to my brother because he’s considering specializing in that area. He was very pleased. It is written in a way that even i as a medical student can understand. And the book arrived in an

excellent condition.

Really good conditions. Almost new if it wasn't for a scratch. A little one. Nothing to worry about it. What makes me rate it with 3 stars is the fact that all the information is packed within block-paragraphs. Too many detail and information in just one paragraph. You really need to read carefully and pay attention since there is no Boldface or italicized letters, not even the subtitles. It annoying how this book has all valuable information squeezed in the paragraphs.

Book quality is good, but as far as a BME textbook goes, it is missing much material.

LOVE IT.