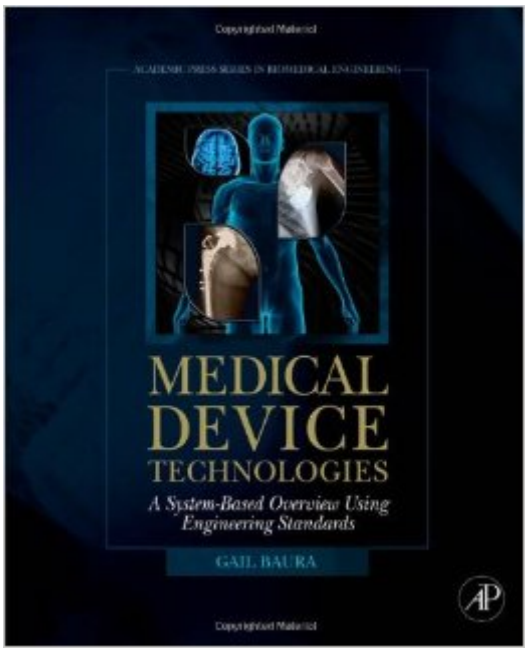
Medical Device Technologies: A Systems Based Overview Using Engineering Standards (Academic Press Series In Biomedical Engineering)



Synopsis

The goal of this textbook is to provide undergraduate engineering students with an introduction to commonly manufactured medical devices. It is the first textbook that discusses both electrical and mechanical medical devices. The first 20 chapters are medical device technology chapters; the remaining 8 chapters are medical device laboratory experiment chapters. Each medical device chapter begins with an exposition of appropriate physiology, mathematical modeling or biocompatibility issues, and clinical need. A device system description and system diagram provide details on technology function and administration of diagnosis and/or therapy. The systems approach enables students to quickly identify the relationships between devices. Device key features are based on five applicable consensus standard requirements from organizations such as ISO and the Association for the Advancement of Medical Instrumentation (AAMI).The medical devices discussed are Nobel Prize or Lasker Clinical Prize winners, vital signs devices, and devices in high industry growth areasThree significant Food and Drug Administration (FDA) recall case studies which have impacted FDA medical device regulation are included in appropriate device chaptersExercises at the end of each chapter include traditional homework problems, analysis exercises, and four questions from assigned primary literatureEight laboratory experiments are detailed that provide hands-on reinforcement of device concepts

Book Information

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Customer Reviews

Poorly written. Simple concepts are difficult to follow and not well developed. I would not recommend this as a text.

The system approach make of this book an unique one

Some mistakes but mostly an interesting textbook

great book, good quality

I bought the book brand new and received a new book with a bent upper corner that is so bad that every page in that corner is bent. I buy my textbooks brand new, because I like to sell them after the semester is over, to cover some of the cost. However this copy is going to be hard to sell as it was already damaged when I got it. I don't want to blame this on the seller as it likely could have happened during shipping, but I'm pretty upset with the condition the book was in for being brand new.

and Interpretive Statements 2012-2014 (Aspan, Standards of Perianesthesia Nursing Practice)

Principles of Financial Engineering, Third Edition (Academic Press Advanced Finance)