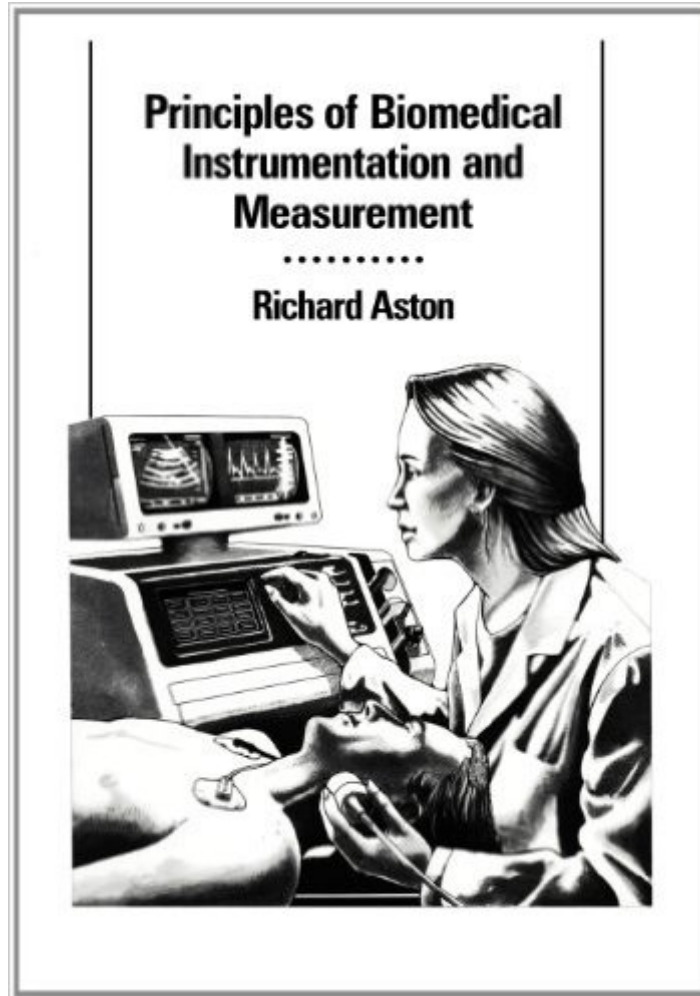


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# Principles Of Biomedical Instrumentation And Measurement



## Synopsis

A contemporary new text for preparing students to work with the complex patient-care equipment found in today's modern hospitals and clinics. It begins by presenting fundamental prerequisite concepts of electronic circuit theory, medical equipment history and physiological transducers, as well as a systematic approach to troubleshooting. The text then goes on to offer individual chapters on common and speciality medical equipment, both diagnostic and therapeutic. Self-contained, these chapters can be used in any order, to fit the instructor's class goals and syllabus. Principles are developed according to a unified theory that clearly illustrates the relationship between electronic, pneumatic and fluid equipment. Computer applications are integrated throughout the coverage. An appendix provides programmes for in-text calculations, half in BASIC and half in calculator sequence. "Theme" boxes in every chapter offer insights into current topics. A wealth of example problems - 25 in chapters 4 and 5 alone - provide practice in analyzing equipment problems in a variety of areas. A prior course in circuit theory is assumed.

## Book Information

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Average Customer Review: 3.0 out of 5 stars [See all reviews](#) (2 customer reviews)

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## Customer Reviews

Biomedical Engineering Technology aims to educate future professionals that will work with medical equipment ensuring their correct calibration and safety. This book is an excellent introduction to this profession at the same time that provides a good overview of the basic measurement principles and techniques. The book covers important issues such as safety, transducers and the analysis of the main pieces of medical equipment. However, the book does not go in-depth into the details of the

medical instrumentation. Some of the topics analyzed in the book, such as oscillators, power amplifiers, etc., can be found in any general electronics book and their space could be better used by more detailed explanations focused on medical equipment. Nevertheless, Aston's book is a good introduction to the field.

This book is a required textbook for one of my classes. Class offers minimal teacher interaction. Material is poorly presented. In the interest of saving pages, it seems like the writer was cramming in too much information, thus the material comes across as vague and unnecessarily complicated. The illustrations aren't as helpful as they could be. This book might be fine as a reference for someone needing a refresher course, but for a student new to the field, it leaves much to be desired.

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