

NMT Bookshelf

THE FUNDAMENTALS OF X-RAY AND RADIUM PHYSICS

Joseph Selman, Charles C. Thomas, Springfield, IL, 1977, 586 pp.

Joseph Selman has recently published the sixth edition of his well known and widely used text. To quote the author, the book's purpose is to explain, "the important physical principles underlying radiologic technology."

The sixth edition follows the same basic outline of previous editions. It begins with several chapters devoted to basic mathematics, basic physics, the structure of matter, electrostatics, electrodynamics, and electromagnetism. The reader advances step by step using many simplified diagrams into the more technical concepts and knowledge necessary to perform proficiently in the field of radiologic technology.

Dr. Selman has rewritten several sections of the book, such as the chapter "Protection in Radiology," to keep the technologist abreast of the latest statistical data available. Changes in terminology and advances in technology have also caused revision of chapters on instrumentation. The chapter that deals with radionuclides and artificial radioactivity has been updated, but it is brief in its introduction to nuclear medicine.

The latest Selman text presents a comprehensive gathering of principles and information to be used by the technologist as a basic diagnostic radiology tool.

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NUCLEAR MEDICINE: CLINICAL AND TECHNOLOGICAL BASES

J. T. Andrews and M. Jean Milne, John Wiley and Sons, Inc., New York, 1977, 468 pp, \$25.00.

The authors of this text state that the content is intended for students of nuclear medicine technology and that the purpose is to teach the principles of procedures, rather than just procedures. The 23 chapters include basic information regarding patient care, aseptic procedures, disease processes, laboratory practice, radiation hazards and protection, and radiobiology and radioactive measurement. Two appendices supply minimal comment on radioassays and computers.

Each organ system has a chapter dedicated to it. The chapter begins with a concise review of anatomy and physiology. Then, the principal role of nuclear medicine, as it applies to diagnosis, is discussed. Disease processes common to that system are outlined, again with emphasis on the specific uses of radionuclides.

The diction of the text assumes that the reader possesses some degree of familiarity with medical terminology. From this standpoint, it may be somewhat advanced for beginning students of nuclear medicine technology. However, it definitely would be useful for graduating students, practicing technologists, and individuals in associated disciplines. As an accessory to procedural texts, this volume will assist the reader in clarifying the purpose of procedures and techniques used in nuclear medicine.

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FINANCIAL OPERATION AND MANAGEMENT CONCEPTS IN NUCLEAR MEDICINE

James L. Bennington, Hirsch Handmaker, and Gerald Freedman, eds, University Park Press, Baltimore, 1977, 232 pp, \$16.50.

The efforts of seventeen authors are well realized in nineteen chapters. Thirteen chapters are devoted to both qualification and quantification aspects of fiscal and management parameters relating to nuclear medicine.

This text was generated as a result of a symposium designed to provide those involved in the practice and management of nuclear medicine with current business and accounting concepts. Of the chapters dealing with both qualification and quantification aspects, the authors have provided detailed qualification of items of pragmatic concern and interest, which are very well supported by detailed and specific quantification examples.

The remaining six chapters are primarily based upon qualification and supported by sufficient real concerns to all involved with decision making responsibilities. For example, the required decisions within the arena of health care between high technology and medical care costs are illustrated very nicely in the chapters dealing with value measurements, influence of governmental agencies, legal considerations, and socioeconomic factors in the transfer to technology.

The primary usefulness of this text will be to those physicians, technologists, and administrators who have previously had some experience with fiscal and management concerns. The authors assume that the reader has some basic understanding and is capable of applying his understanding and experiences to the identified concepts. However, the aggressive neophyte can use the macroskeleton of the text as a primer as well, to more quickly and successfully apply this information.

The editors and individual authors have provided a well-written text.

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