

NMT Bookshelf

NUCLEAR MEDICINE SCIENCE SYLLABUS

Society of Nuclear Medicine, New York, 1978, 160 pp, \$30.50.

This loose-leaf bound comprehensive outline of the science of nuclear medicine has been compiled as a guide to teaching. The major areas of interest are: mathematics and physics, radiation detection and instrumentation, anatomy, physiology and medical terminology, radiation biology, radiation protection, radiochemistry and radiopharmaceuticals, diagnostic imaging and function imaging, therapeutic techniques, in vitro techniques, and computer and data processing.

The syllabus covers the full breadth of nuclear medicine. Most references are available in many medical and university centers. However, the coding of these references is complex and must be carefully read and understood before using the outline. The outline is well organized and may be used to develop a lesson plan for the full breadth of nuclear medicine or individual units.

This compendium is not for everyone but is a useful adjunct for those planning the training of technologists and physicians.

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RADIATION PROTECTION IN THE RADIOLOGIC AND HEALTH SCIENCES

Marilyn E. Noz and Gerald Q. Maguire, Jr., Lea and Febiger, Philadelphia, 1979, 218 pp, \$12.50.

This soft-covered book contains 12 chapters divided into three major sections: general radiation protection; protection from radionuclides; and protection from external radiation. Four appendices cover the units of physics, the roentgen and the rad, logarithms, and the Greek alphabet. There is also a useful glossary.

In addition to covering the basic concepts of time, distance, and shielding as applied to both sealed and unsealed sources, there is a very good chapter explaining the MIRD system of dose calculation. Another chapter covers the legislation pertaining to the production, transportation, and use of radionuclides at the federal, state, and local levels.

The book is very readable and is aimed at an audience of radiologic and nuclear medicine technologists, as well as residents and medical physicists. It cannot be regarded as a definitive reference text (nor does it purport to be) though it does contain much useful information, tables, and worked examples.

It is pleasing to note that the authors have adopted the use of SI units throughout. However, there are some examples of loose language used erroneously to clarify a point. One such example states that metallic filters in film badges attenuate photons, "thus lowering their energy." In dealing with the disposal of radioactive waste it is unfortunate that the authors fail to indicate that hazards other than radioactivity, such as the flammability of liquid scintillation fluid, are sometimes more important.

Some of the illustrations (all line drawings or sketches) are of doubtful value. One intended to demonstrate the use of a leadglass shield is incomprehensible and a pocket ionization chamber appears more like a cigarette wearing a tie clip!

Despite these relatively minor criticisms, this book has much to commend itself and, if only because of the price, should be very popular as a teaching text in radiologic and nuclear medicine technology training schools. Radiology and nuclear medicine residents will also find in it a practical approach to radiation protection that should assist them in understanding the basic fundamentals.

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NCRP REPORT NO. 59: OPERATIONAL RADIATION SAFETY PROGRAM

National Council on Radiation Protection and Measurements, Washington, DC, 1978, 62 pp.

This report is an amplified outline comprising the philosophy and general principles of a radiation safety program common to all users. Each subheading represents a large body of material requiring further clarification. An extensive bibliography, categorized by subject matter, follows each section.

In general, the content is geared to the construction of a program that will reduce exposure to a level as low as practicable and minimize the possibility of accidental exposure.

Specific applications of this report to nuclear medicine include guidance as to the role and suggested qualifications of the radiation safety officer, the function of the radiation safety committee, and types of necessary records. Some sections of the discussion of facility design (shielding, ventilation, storage, etc.), monitoring, and emergency procedures are useful as well.

NCRP Report No. 59 is definitely appropriate for the radiation safety officer, the radiation safety committee, and nuclear medicine technologists and physicians. In addition, it may be useful as background information for the hospital administrator when funding is requested to support such programs.

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