Introduction to Health Physics

Herman Cember
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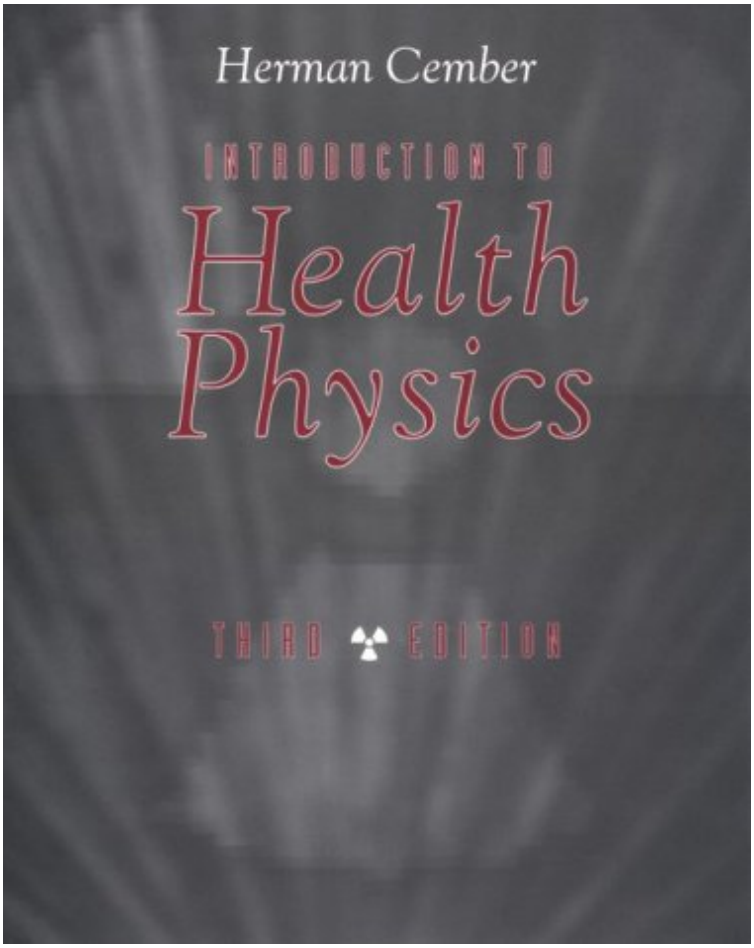

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Herman Cember : Introduction to Health Physics before purchasing it in order to gage whether or not it would be worth my time, and all praised Introduction to Health Physics:

0 of 0 people found the following review helpful. Five StarsBy DJ Skillzzgood info1 of 1 people found the following review helpful. Very nice presentationBy WJPDr. Cember does an excellent job in his book presenting the subject matter. There are a lot of well thought out problems that help in understanding the material. I've worked in radiation protection and health physics for 40 years and this is an excellent text and reference. Highly recommended.46 of 60 people found the following review helpful. New edition marred by typos and awkward editingBy Glenn A. Carlson, P.E.This new edition of the classic text is a disappointment, and it's use as a textbook is not recommended.For this 3d edition, the list of typographical errors compiled by colleagues and myself stands at four pages and growing. Errors can be found in the text, the chapter problems, and their solutions. Other solutions which are not clearly wrong may inexplicably differ from your own solution at the second significant digit.Formulae are rarely derived from first principles. One exception is the change in wavelength for a photon undergoing Compton scattering from an electron,

but, even here, a crucial equation (the relativistic energy invariant) is conspicuously omitted, without which the final equation cannot be derived. The text does not even mention relativity in discussing Compton scattering. (The index does reference "Relatively effects" (sic) at pp. 4-11.)Equations and formulae contain, at times, an unnecessary proliferation of multiplication signs and units which obscures the underlying physical principles and the simplicity of the equations themselves. Students are better served by a clear mathematical presentation of the underlying physics, rather than being dropped into the middle of an obscure equation made even more so by the inclusion of several constants whose only purpose is to make the units work out. While any text on this subject must deal with the unavoidability of old and new units, my suggestion is to derive the formulae from first principles and deal with the units issue (which, after all, only amounts to including appropriate conversion factors) separately as examples or chapter problems.Finally, the multiplication sign, "x", should be reserved for arithmetic and scientific notation, not symbolic mathematical equations. See, e.g., Equations (3.10), (4.31), (10.17), (10.32), etc., as examples where the multiplication sign is unnecessary. The text also uses the multiplication sign even where numerical values are already set off by parentheses. The text's overuse of the multiplication sign gives the text a grade-schoolish flavor.

This edition continues to provide students with a basic understanding of the biophysical bases of radiation, radiation safety standards, and the key factors in radiation protection. Now includes new coverage of non-ionizing radiation-laser and microwaves, computer use in dose calculation and dose limit recommendations. Emphasizes a problem-solving approach that will serve students into their clinical careers.

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