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[Shannon Shipley](#)

[5.0 out of 5 stars](#) [Unparalleled resource for all](#)

January 6, 2017

I couldn't agree more with the previous review. I have dabbled in some research in materials science, but am now very much immersed in neuroscience, a field that one may traditionally see as quite separate from that of materials. This is where many are mistaken, I believe. In fact, neuroscience, as well as nearly any field imaginable, is strongly dependent on materials.

That said, 'Materials: Introduction and Applications' is the perfect resource for learning about the world of materials, one that is easily understandable by those of all backgrounds and levels of experience -- my go-to as a student of neuroscience and medicine looking to integrate these two with materials science. This is the only textbook of the sort that has a chapter on biomaterials, another on smart materials, one on petroleum and organic raw materials, one on composites... It has something for everyone, and truly demonstrates the wide reach that characterizes materials science and engineering. Yes, in this text, not only do various classes, but also various properties of materials have "equal rights".

'Materials: Introduction and Applications' covers a wide variety of topics, classes, and properties that other textbooks don't, and does so without compromising its core mission of teaching and teaching well. Its humor and voice are only an added plus.

Sure to be (and already is) an immediate 'industry standard' for the materials field and beyond.

Neuroscience & Behavior Student
I.I. Rabi Scholar
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[Allison](#)

[5.0 out of 5 stars](#) and is very easy to understand and visualize

Materials: Introduction and Applications is one of the most interactive and engaging books that I have come across. As an introduction to materials, it is captivating and students and professionals will not find themselves lost while trying to read the text. It is written in a manner that makes me enthusiastic about learning more about Materials Science and Engineering, and is very easy to understand and visualize. The images are well done, as well. A very helpful characteristic is the self-assessment questions at the end of the chapters. Straight and to the point, they are thought provoking. There aren't pages and pages of the self-assessment questions, either, and that is a huge plus. There are quotes that open each new chapter, and some of them have actually made me laugh out loud – because they are relatable. The authors of this book know what we are all thinking, and understand the struggles that many students and professionals face in the engineering world... sometimes our eyes glaze over and we lose interest easily when topics are difficult to understand. The authors somehow, and ingeniously, manage to make these struggles disappear and explain things like thermodynamics in plain logic rather than the foreign text that I often find in other forms of literature. It is important to learn the material and to actually retain it – and this book is so well written that it makes this possible.

As Ulf W. Gedde has said, materials have vastly influenced the advancement of mankind for thousands of years. Materials are used for all applications to improve the quality of life for all of humanity, and they are everywhere. One cannot start the day without using something that has had the influence of a Materials Science Engineer. “There is... a need for scientists, engineers, and laymen alike to understand the nature of materials”, and there always will be. Instead of purchasing several books for each type of material (i.e. polymeric materials, composite materials, ceramic materials, metallic materials, and electronic materials), consider this instead for introduction purposes– as it encompasses all types of materials and equally compares them. I believe this book offers you more bang for your buck as it contains all of these subjects in one purchase. This book is unique from other books because it is enthusiastic and engaging and it educates beyond classification of materials' characteristics so that Materials Science and Engineering students learn how to apply the knowledge of materials in computer simulation. Additionally, its target audience is not limited to Materials Scientists; rather it is relevant to other fields, including Chemical Engineering and Mechanical Engineering, Physics, and Chemistry. It is useful for students, professors, and professionals in the workforce alike – and that is the way it should be. Instead of investing in several books that will likely sit on the shelf and collect in dust once you are done with the class, consider this one, because it will be useful to you for your entire career.

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