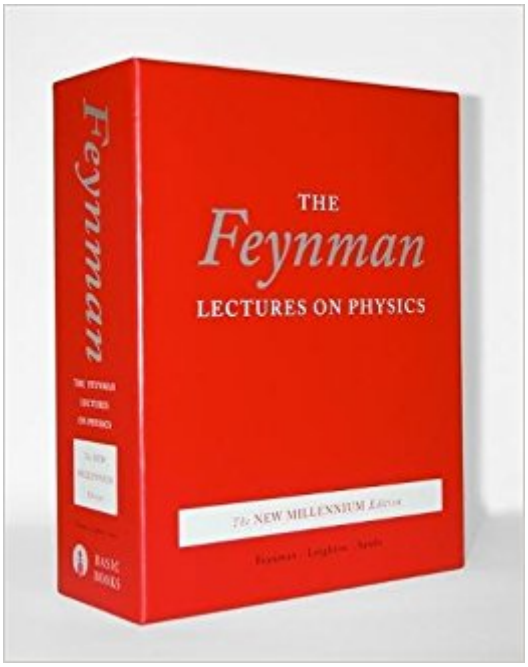
The Feynman Lectures On Physics, Boxed Set: The New Millennium Edition



Synopsis

"The whole thing was basically an experiment," Richard Feynman said late in his career, looking back on the origins of his lectures. The experiment turned out to be hugely successful, spawning a book that has remained a definitive introduction to physics for decades. Ranging from the most basic principles of Newtonian physics through such formidable theories as general relativity and quantum mechanics, Feynman’s lectures stand as a monument of clear exposition and deep insight. Now, we are reintroducing the printed books to the trade, fully corrected, for the first time ever, and in collaboration with Caltech. Timeless and collectible, the lectures are essential reading, not just for students of physics but for anyone seeking an introduction to the field from the inimitable Feynman.

Book Information

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Customer Reviews

Richard P. Feynman was Richard Chace Tolman Professor of Theoretical Physics at the California Institute of Technology. He was awarded the 1965 Nobel Prize for his work on the development of quantum field theory. He was also one of the most famous and beloved figures of the twentieth century, both in physics and as a public intellectual.

This is the next to most current version(6edition I believe), still some typos , but far far less than the rush edition that the book started life as,for those who think it’s out of date, think again,you tube has

similar more modern version, and it’s still the same physics! And with the improvement and corrections, an excellent service, but be warned you have to know math,(algebra ,calculus,trig, and adapt the math formulas to math lab, measurements!) But worth it!!!

Volume 1 does a bit of everything, at an introductory level, meaning a bit of special relativity, a bit of heat (thermodynamics etc.), a bit of probability, quite a bit of mechanics, some waves, etc. (there is even a chapter on vision, which explains the process of how we see). Volume 2 seems to be devoted to electromagnetism, and volume 3 to quantum mechanics.The author is brilliant, needless to say, and is driven by a passion to understand how things work. What I like the most though, personally, is that prof. Feynman does not shy away from the tough questions. Rather, he seems to enjoy these the most.Another nice thing is that these notes have gone through long lists of errata. I am not well placed to talk about how to use these notes pedagogically, by a physicist, since I am not a physicist, myself. However, it seems to me that they are ideal notes for people from scientific disciplines outside physics, but still very mathematical, who want to try to learn undergrad physics by themselves, and build up some physical intuition and knowledge. For instance, I highly recommend these notes for mathematical physicists with a mathematical background.They are quite fun to read!

This book series has acquired legendary status in the physics world. I strongly recommend this , and the other 2 volumes in the set, as reference books for any student pursuing physics , electronics, or other technical fields.I would have liked to have this when I got my BSEE degree. A lot of the classes would have been easier!

Unmatched eloquence of thougt and clarity. Impeccably demonstrates the need for understanding ideas and concepts over and above just parroting proofs! Teaching a better way of thinking. Nothing superficial here!

This 3-volume, 1963 - 1965 edition of Nobel-prize-winning physicist Richard Feynman’s lectures to Caltech freshmen and sophomores has been part of my library ever since I was introduced to them as textbooks in my undergraduate physics classes. Volume I concentrates on mechanics, radiation, and heat; Volume II on electromagnetism and matter; and Volume III on quantum mechanics.Volume I: the first three chapters ("Atoms in Motion," "Basic Physics," and "The Relation of Physics to Other Sciences") were meant by Feynman to outline the relationship of physics to

other sciences, and other sciences to each other, and to discuss the overall meaning of `Science.' Here in the introduction to Volume I, Feynman iterates one of his most-quoted ideas on science: "If, in some cataclysm, all of scientific knowledge were to be destroyed, and only one sentence passed on to the next generation of creatures, what statement would contain the most information in the fewest words? I believe it is the atomic hypothesis...that `all things are made of atoms--little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another.'"There are 52 chapters in Volume I, from "Atoms in Motion" to "Symmetry in Physical Laws." It would be well to remember that this book and its fellows are not meant to be read in isolation. Rather the lectures were connected with a series of experiments and demonstrations. As Feynman puts it: "The principle of science, the definition, almost, is the following: `The test of all knowledge is experiment.'"Volume II: the first two-thirds of this series of lectures is devoted to a reasonably inclusive treatment of the physics of electricity and magnetism. This volume's `Foreward' by Matthew Sands states: "We hoped, first, to give the students a complete view of one of the great chapters of physics--from the early gropings of Franklin, through the great synthesis of Maxwell, on to the Lorentz electron theory of material properties, and ending with the still unsolved dilemmas of the electromagnetic self-energy."There are 42 chapters in Volume II, with the last four chapters devoted to elasticity and fluid flow.Volume III: Richard P. Feynman won a Nobel Prize for his contributions to the development of quantum electrodynamics, and this series of lectures was the first real attempt to ground physics students in the theory of quantum mechanics. By its nature, quantum mechanics is a mathematical theory, so these lectures are absolutely chock-full of calculus and physics equations. But, as Feynman himself once said, "Do not take the lecture [on quantum mechanics] too seriously...just relax and enjoy it. I am going to tell you what nature behaves like. If you will simply admit that maybe she does behave like this, you will find her a delightful, entrancing thing. Do not keep saying to yourself `But how can it be like that?' because you will get...into a blind alley from which nobody has yet escaped. Nobody knows how it can be like that."There are 21 chapters in Volume III, from "Quantum Behavior" to "The SchrÃƒÂ¶dinger Equation in a Classical Context: A Seminar on Superconductivity."If the math in Volume III really depresses you, there now exist many good popular-science books on quantum mechanics, such as "In Search of SchrÃƒÂ¶dinger's Cat: Quantum Physics and Reality" by John Gribbin, "The God Particle: If the Universe Is the Answer, What Is the Question?" by Leon Lederman, or Bruce Schumm's book on elementary particle physics, "Deep Down Things: The Breathtaking Beauty of Particle Physics."These lectures by Richard P. Feynman were meant for physics students, as opposed to the general public. Those readers who have no background in

physics, calculus, statistics and probability might find these books tough going. However, any of us might struggle through certain sections with no loss of self-worth, if we remember that one of America's most brilliant scientists gave two years of his knowledge and intellectual energy in order to present us with a solid understanding of his physicist's universe. Feynman says in his epilogue to these lectures: "Finally, may I add that the main purpose of my teaching has not been to prepare you for some examination...I wanted most to give you some appreciation of the wonderful world and the physicist's way of looking at it, which, I believe, is a major part of the true culture of modern times."

Refreshing take on the subject. He derives all of freshman and sophomore physics from scratch and uses very intuitive arguments to do so. The math prerequisite isn't that much either: calculus, elementary linear algebra, and elementary differential equations. One thing I might add is this would be a very difficult first exposure without the help of a professor. There are some parts that seem a little too wordy at times and others that seem as though he is showing off at how little you need to arrive at a fundamental result. Don't be fooled, this isn't Feynman's first rodeo. Overall a great series of lectures. Bravo prof feynman

Feynman's explanations are clear and insightful, but his approach to these topics is dramatically different than most other physics books. While his approach works very well for me, I'm not sure that everyone will find it to their liking.

Volume 1, Quantum Mechanics The Feynman Lectures on Physics: Volume 2, Advanced Quantum Mechanics The Feynman Lectures on Physics: Commemorative Issue, Volume 2: Mainly Electomagnetism and Matter The Feynman Lectures on Physics: Mainly Electromagnetism and Matter ,Volume 2 Feynman Lectures On Gravitation (Frontiers in Physics S) Exercises for the Feynman Lectures on Physics Reading Fun with Curious George Boxed Set (CGTV reader boxed set) (Green Light Readers Level 1) From Special Relativity to Feynman Diagrams: A Course in Theoretical Particle Physics for Beginners (UNITEXT for Physics) Quantum Electrodynamics: Gribov Lectures on Theoretical Physics (Cambridge Monographs on Particle Physics, Nuclear Physics and Cosmology) Millennium Dome Pop-up Book (DK millennium range) Diagrammatica: The Path to Feynman Diagrams (Cambridge Lecture Notes in Physics)