A PhD Is Not Enough!: A Guide To Survival In Science
Despite your graduate education, brainpower, and technical prowess, your career in scientific research is far from assured. Permanent positions are scarce, science survival is rarely part of formal graduate training, and a good mentor is hard to find. In A Ph.D. Is Not Enough!, physicist Peter J. Feibelman lays out a rational path to a fulfilling long-term research career. He offers sound advice on selecting a thesis or postdoctoral adviser; choosing among research jobs in academia, government laboratories, and industry; preparing for an employment interview; and defining a research program. The guidance offered in A Ph.D. Is Not Enough! will help you make your oral presentations more effective, your journal articles more compelling, and your grant proposals more successful. A classic guide for recent and soon-to-be graduates, A Ph.D. Is Not Enough! remains required reading for anyone on the threshold of a career in science. This new edition includes two new chapters and is revised and updated throughout to reflect how the revolution in electronic communication has transformed the field.

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Customer Reviews

I have just begun a PhD program in engineering, and find the sobering wisdom contained in this book to be invaluable. The book is actually aimed at freshly minted PhDs, and serves to guide them as they plot an often precarious career in science and/or engineering. Despite this, the book contains a lot of advice that graduate students at the beginning or the middle of their program will find extremely useful. Feibelman is able to say in little over one hundred pages what most academic
advisors almost always do not (and often purposely will not) get around to saying. The first chapter of the book starts out with some scary examples of how freshly minted PhD holders quickly go wrong. The second chapter of the book gives some very practical advice on how to choose the right advisor for you—an often repeated mistake many graduate students make (including myself). The advice in the second chapter serves grad students and post docs equally well, and could almost be interchangeable. The third and fourth chapters are about the bread and butter of a scientist’s life—being able to give successful talks and writing compelling, useful publications. Feibelman tells us here that it is OK to regurgitate known material, to write your research publication as if you were telling a story, and most importantly, to make small, meaningful contributions. Chapters five and six of the book discuss choosing the right career path after getting the sheepskin and how to shine in your job interviews, respectively. Competition is stiff in academia for positions, as we all know, and the situation is only marginally better in government and corporate labs, but Feibelman gives the new PhD some sound advice. He weighs in on the pluses and minuses of a career path in academe, industry and government, and implores job seekers to be focused, build off of their skills, and know what is expected of prospective hires. Finally, chapters seven and eight are about grantsmanship and establishing a research program. Feibelman astutely argues that you should draft your proposals to funding agencies well before you begin your first career position. Most people coming out of graduate school will have very little time to even think about what kind of research to do and even less time to plan it out and write the necessary proposals because of the demands and the constraints placed upon them by their jobs—making the aforementioned tip extremely useful. Feibelman also emphasizes in these chapters the importance of focusing in on small, well-defined projects and completing them. The major weakness of this book is that Feibelman does not tell the reader to choose the type of projects that are interesting to him or her. A career in science and engineering, which may start in graduate school, should be interesting and fun. The book also fails to address the changing face of science—namely issues of globalization, the corporate influence on university research, and the increasing diversity to be found in grad student and post doc populations (women, minorities, and foreign nationals). No one book can tell you the keys to personal satisfaction or career success, but this handy little volume does give those just starting out, like me, some excellent tips. In general, a student can not go too far wrong when he or she has good mentoring, stable funding, and most importantly, sound advising. Beginning and continuing graduate students may find helpful hints in the book Getting What You Came For by Robert L. Peters.
Just as the title said, a PhD is not enough! Getting a PhD is just the beginning of a scientific career. There are many important "life" skills to learn. This book is unique in that it tells you what you need to do after you have your PhD. Another very precious thing that this book reveals is that going directly to academia after your PhD is probably not the best way to establish yourself as a scientist. There are too many duties (teaching, handling the students, departmental meetings, etc) that demand your time that you won't enough time to do the main tasks - bring in a grant, research and publish. A better way is to go to an industrial or governmental lab and establish your scientific reputation there. You won't have the distractions and can concentrate on getting grant, research and publish. After you are established, you can go to academia easily, if you so choose. Finally, the author reveals another big secret - pursue your long term research goal by a sequence of small projects. This book is an excellent and indispensable guide for budding scientists. Get this book if you are serious about becoming a scientist. Highly recommended.

Feibelman has done a great service for future scientists in writing this book. Although a quick read, it's dense with good advice for budding scientists, whether they be at the grad student, postdoc, or assistant professor stage of their careers. For example, he advises against showing an outline at the beginning of a talk because it is as superfluous as it is ubiquitous. (See the review by Gregory McMahan for more specifics.) The only shortcoming I find with the book is its focus on high level research. As a top scientist at a government lab, Feibelman directs his comments to those whose aspirations are similar to his. Not all of us who do research aspire to, or can, be tops in our field however. If you're looking for a book that tells you how to balance teaching and research or how to survive in different types of academic institutions, for example, a better choice would be Tomorrow's Professor by Richard Reis. Feibelman focuses only on the research side of the coin however. Still, the book is excellent and can be useful to anyone whose career includes scientific research. I only wish I had found it earlier!

Overall, I did not find this book to be helpful upon reading it. The vast majority of the advice is either obvious or something you already know by the time you become aware of and purchase this book. Who doesn't know that working long hours and refraining from having children is one of the best ways to succeed in science? Who doesn't know that having a good mentor is an invaluable asset, but not guaranteed to happen because we as scientists receive no training in how to be good mentors? On the positive side, if you read the anecdotes and success/failure stories that constitute a significant fraction of the book, there is a lot to be learned. Some provide hope because they remind
you that others have successfully overcome the same challenges you have faced. Others reinforce the often overlooked point that, while having a supportive mentor is beneficial, we are in a career where being your own best advocate is a must. Taking the anecdotal stories as advice on how to best represent yourself and prepare for your career can make this a useful read. That having been said, the value of the advice tapers off the later in your career you read it.

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