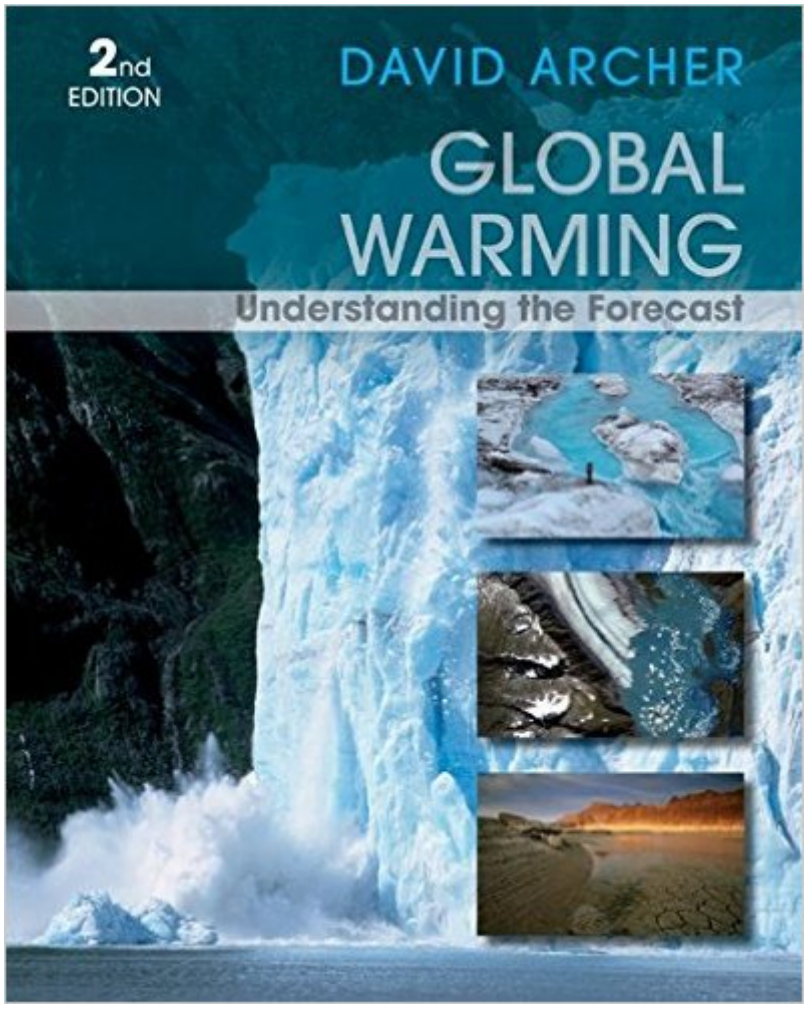
Global Warming: Understanding The Forecast



Synopsis

Archer’s Global Warming: Understanding the Forecast 2nd Edition, is the first real text to present the science and policy surrounding climate change at the right level. Accompanying videos, simulations and instructional support makes it easier to build a syllabus to improve and create new material on climate change. Archer’s polished writing style makes the text entertaining while the improved pedagogy helps better understand key concepts, ideas and terms. This edition has been revised and reformulated with a new chapter template of short chapter introductions, study questions at the end, and critical thinking puzzlers throughout. Also a new asset for the BCS was created that will give ideas for assignments and topics for essays and other projects. Furthermore, a number of interactive models have been built to help understand the science and systems behind the processes.

Book Information

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Customer Reviews

I have been teaching an undergraduate course on climate modeling to non-science majors. Recently I have received some sample copies of other texts for undergrad climate change courses, and I can say that Archer’s stands out. It seems that most authors feel that climate is just an extension of weather, or just the statistics of weather, so they tend to start with weather, and then move on to trying to explain "predictability out of chaos", and so forth, losing the clarity. The approach of starting with global budgets seems to me to be the way to go. I am glad to see that the students really "get it" with global energetics, and followed the progression from bare rock to glass-covered greenhouse to a planet with an atmosphere. I was particularly impressed with the

discussion of "why is a greenhouse gas a greenhouse gas?" - elegantly simple, but something that no one else really talks about. Bringing in the treatment of weather by considering it a mechanism for heat transport seems to help students place it in context. The problems and study questions are excellent for our computer-based lab sessions and provide excellent opportunities for modifications to engage student groups in experiments and self-driven discovery. All of this leads to a clear rationale for understanding how global warming works, what questions and uncertainties remain, and how and why complexity is layered onto the projections of climate change. The text could easily serve an entry level course for climate science majors.

After taking a course on Climate Change, I wanted to read and study more about it on my own. I bought this book and haven’t regretted it. David Archer begins with a chapter on "Humankind and Climate" and from there goes on to begin Part I "The Greenhouse Effect." Each chapter is followed up with Take Home Points which are statements to review and consider, Study Questions, Further Reading and lastly a series of Exercises.Part II covers "The Carbon Cycle" with three chapters on Carbon on Earth, Fossil Fuels and Energy, and The Perturbed Carbon Cycle. Part III is "The Forecast" which covers, among other things, Potential Climate Impacts." In Part I the author includes a chapter on Weather and Climate, and from my own experience with people who don’t believe in Climate Change, many don’t know the difference between the two, so a good discussion is necessary, as well as mankind’s part in the problem.The book also covers numerical modeling and has colorplates of maps of climate model annual mean temperature, maps of climate model temperature changes from the year 2000 and various maps of climate model precipitation."Global Warming: Understanding the Forecast" by David Archer is a textbook for undergraduates who are non-science majors, but I am able to follow it myself after a thorough course on Climate Change that went into numerical modeling in much more detail than this book does. It is a good book to help understand the problem.The book takes into consideration the roles of economics, population and land use in Global Warming and considers some solutions.Highly recommended.

This is the best introduction to global warming that I have found for thinking people who are not climate scientists themselves. Written by an expert in the field, it shows far better scientific reasoning than the popular book by Al Gore. At the same time, it is a university textbook meant for non-majors, and the author does his best to summarize the science and make it accessible. The book is not perfect --- a few details here and there are misstated and a few of the figures are cheap-looking --- but it is great. In fact, it’s a good way to learn some important basics of chemistry,

physics, and earth science even if you aren't thinking about global warming.

This is a clear, intelligible introduction to the complex science of climate change. It has answered tons of questions that I had, and presented the underlying physics and chemistry in a way I could understand.

Clear, no-nonsense approach to global warming excluding unfounded speculation and built on proven facts and high-school mathematics. A lucid example of how models are used in science to understand reality.

This is an excellent and concise review of the science behind global warming. I appreciated that the author provides online access to lots of different models that allow you to play with the data yourself. This really helps with understanding the forces at work and how they're interconnected. It also gives you a sense for where our gaps in knowledge are, and how uncertainties affect our predictions of future climate change.One important note: I used the online version of the book, and found that the links the models are all broken because the URLs have changed since the book was published. If you find that this hasn't been fixed, Google the names of the models and you should be able to find them.

This was an informative textbook for my global climate change masters class. I am actually not going to resell it because it has good information and resources. The seller was quick with shipping and the price point was awesome.

Fatal Forecast: An Incredible True Story of Disaster and Survival at Sea Warming the Stone Child: Myths & Stories about Abandonment and the Unmothered Child An Introduction to Theology in Global Perspective (Theology in Global Perspectives) Global Health Care: Issues and Policies (Holtz, Global Health Care) The Global Minotaur: America, Europe and the Future of the Global Economy (Economic Controversies) Global Marketing: Foreign Entry, Local Marketing, and Global Management What is Global Leadership?: 10 Key Behaviors that Define Great Global Leaders The International Organization for Standardization (ISO): Global Governance through Voluntary Consensus (Global Institutions)