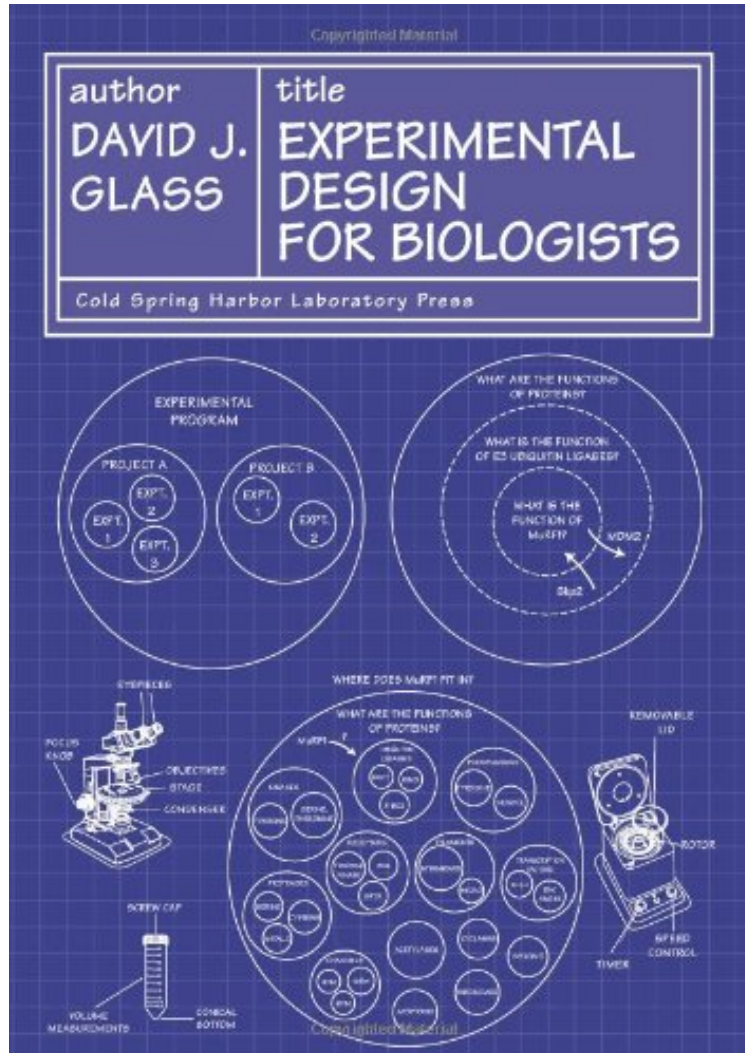


# Experimental Design for Biologists

David J. Glass

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**David J. Glass : Experimental Design for Biologists** before purchasing it in order to gage whether or not it would be worth my time, and all praised Experimental Design for Biologists:

1 of 1 people found the following review helpful. Essential For The Experimentalist By ModernMaverick From The Perspective Of A Young Investigator In The Biological Sciences: I found this book upon searching for a book that could help me in designing experiments. It is indeed true that designing experiments is not only critical for the success of the investigator but in general for being a good investigator. This is a skill that is meant to be cultivated in graduate school but unfortunately that is not always the case. What this books does is explicitly lay out the principles for approaching experiments, validating the experimental system, designing experiments, and in a few cases how to interpret the results from the experiment. It is one of the only books that I have found that discuss defining terms, the

importance of representative conditions, and a thorough discussion of controls, which I have come to find out are critical in biological experimentation. Overall I would recommend this book for any investigator. Again what this book does is explicitly lay out the principles of experimentation. My only criticism of the book would be its organization. I had some difficulty in conceptually organizing the different aspects discussed. However, there is a second edition that seems to be better organized. That edition has already been pre-ordered. 1 of 1 people found the following review helpful. "Experimental Design for Biologists: An Extraordinarily Interesting and Well-Written Book on a Neglected Topic" By Customer David Glass has written an extraordinarily interesting, useful, well-written and accessible book on a very neglected topic: "Experimental Design for Biologists." While students from junior high school through graduate and medical studies learn to perform experiments, they are rarely taught how to design an experiment that will accurately test, control for and prove a hypothesis. Dr. Glass's book does just that, and in the process gives the reader real insight into the epistemology of applied scientific method. I may be unique among the reviewers of this book in that I am not a research or academic biologist, but a lawyer by training, engaged in serving the biotech and life sciences sectors, and am only an amateur science enthusiast. As such, I found Dr. Glass's book accessible, engaging and thought-provoking, that it provided real insight into how good experimental science is designed and how the scientists in the biotechnology and life sciences fields do their work, and even, I venture to say, useful in honing the acuity of my own thought processes. I heartily recommend "Experimental Design for Biologists" to professional, amateur and aspiring scientists interested in developing their experimental science skills, and to anyone interested in the scientific method. I look forward to the upcoming new edition. 0 of 1 people found the following review helpful. Only get if really need By DO student 14 My book came very quickly. However this book is VERY dry. For the class that I use it for we do not even really utilize it. I almost wish I had not purchased the book. Hard to read, and the examples provided are not very helpful (or even related to biology)! - Only get if really need or absolutely required

The effective design of scientific experiments is critical to success, yet graduate students receive very little formal training in how to do it. Based on a well-received course taught by the author, *Experimental Design for Biologists* fills this gap. *Experimental Design for Biologists* explains how to establish the framework for an experimental project, how to set up a system, design experiments within that system, and how to determine and use the correct set of controls. Separate chapters are devoted to negative controls, positive controls, and other categories of controls that are perhaps less recognized, such as "assumption controls," and "experimentalist controls." Furthermore, there are sections on establishing the experimental system, which include performing critical "system controls." Should all experimental plans be hypothesis-driven? Is a question/answer approach more appropriate? What was the hypothesis behind the Human Genome Project? What color is the sky? How does one get to Carnegie Hall? The answers to these kinds of questions can be found in *Experimental Design for Biologists*. Written in an engaging manner, the book provides compelling lessons in framing an experimental question, establishing a validated system to answer the question, and deriving verifiable models from experimental data. *Experimental Design for Biologists* is an essential source of theory and practical guidance in designing a research plan. Related Titles from the Publisher *Statistics at the Bench: A Step-By-Step Handbook for Biologists* *CSH Protocols Laboratory Research Notebook*

"...an extraordinarily concise, highly instructive book...guides potential and practicing researchers through scientific epistemology and sound research design." --J.N. Muzio, CUNY Kingsborough Community College (Choice) [David Glass] has written an extraordinarily concise, highly instructive book based on a course he developed. It guides potential and practicing researchers through scientific epistemology and sound research design. The author uses extensive application examples, especially biological ones. Early chapters focus on philosophical constructs related to research issues, especially critical rationalism. The volume presents effective framing of both testing a hypothesis and a question/answer format. --Choice [David Glass] has written an extraordinarily concise, highly instructive book based on a course he developed. It guides potential and practicing researchers through scientific epistemology and sound research design. The author uses extensive application examples, especially biological ones. Early chapters focus on philosophical constructs related to research issues, especially critical rationalism. The volume presents effective framing of both testing a hypothesis and a question/answer format. --Choice [David Glass] has written an extraordinarily concise, highly instructive book based on a course he developed. It guides potential and practicing researchers through scientific epistemology and sound research design. The author uses extensive application examples, especially biological ones. Early chapters focus on philosophical constructs related to research issues, especially critical rationalism. The volume presents effective framing of both testing a hypothesis and a question/answer format. --Choice