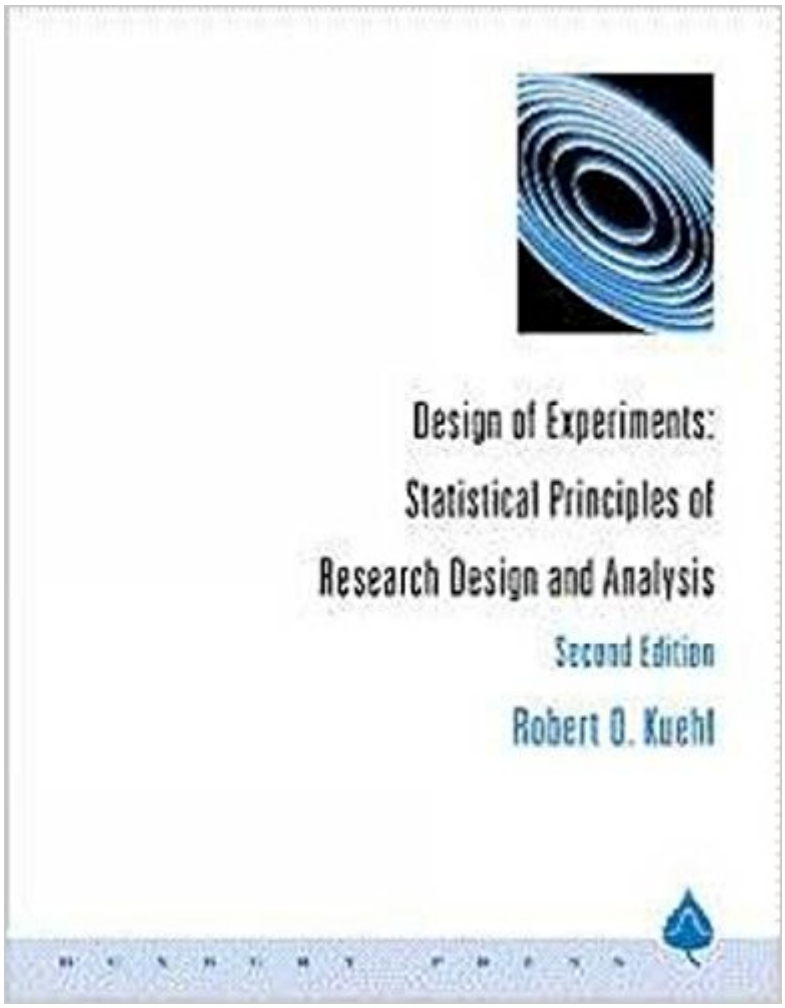
Design Of Experiments: Statistical Principles Of Research Design And Analysis



Synopsis

Robert Kuehl’s DESIGN OF EXPERIMENTS, Second Edition, prepares students to design and analyze experiments that will help them succeed in the real world. Kuehl uses a large array of real data sets from a broad spectrum of scientific and technological fields. This approach provides realistic settings for conducting actual research projects. Next, he emphasizes the importance of developing a treatment design based on a research hypothesis as an initial step, then developing an experimental or observational study design that facilitates efficient data collection. In addition to a consistent focus on research design, Kuehl offers an interpretation for each analysis.

Book Information

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Customer Reviews

The exercises are a great strength of the book. I think the difficulty level, the amount of real data, and the required computer usage are all on target.I find the book well written, and useful in both a teaching context as well as a consulting one. I find his narrative style in the text, and development of mathematical structures in an appendix at the end of each chapter desirable from a teaching standpoint. The narrative text sets the stage for the mathematical treatment...Kuehl has put the right emphasis on the use of a computer.

Welcome to a graduate level text. Given the positive reviews, I had high expectations. Unfortunately, I started reading the text and reality set in. I thought I would give a critical review beyond "it’s great" or "it’s horrible" to help students like me know what to expect with this text.The

book expects you know some things: Make sure you have a working understanding of things like the General Linear Model; ANOVA; multiple regression; F, Chi-Square, etc. distributions; contrasts; orthogonality; Tukey, Bonfernoni, etc. tests; etc., etc. If you don’t have this knowledge, you won’t get past the 1st chapters.The book presents concepts: If you are looking for a practical, how to, step by step approach, this is not the book for you. This book isn’t too theoretical either. In a non-engaging manner, the author presents concepts without going through details that you might wish the author would but didn’t flesh out. If you have to read this book, hopefully you have prior experience with DOEs or you will struggle to grasp what this author is talking about.What I liked about the book: In some instances, the author sticks with the same examples for multiple chapters. I like the continuity this gives to the material. The problems at the end of the chapters are kept to a minimum, but maximize the concepts they are testing.In the end, it is a book that if you are trying to get a Master’s degree you will have to take on sooner or later. Hopefully you can add to the book a solid understanding of undergraduate statistics, actual experience performing DOEs, other books that take a different, more student friendly approach, and a good professor. If not, you are in for an uphill battle with this book alone. Good luck!

Excellent ANOVA and BBD (Balanced Block Design) presentations with examples and many problems. The new edition has good overview chapter introductions and many in-context references for deeper investigations.

AT THE END OF THE COURSE YOU DO NOT WANT TO SELL THIS BOOK BECAUSE IT CONTAINS MOST OF THE INFORMATION ONE NEEDS TO HANDLE EXPERIMENTS

THE BOOK IS GOOD but a little bit hard for understand ing ,but it is very useful for experiment design

There are many cases in this book that is not clear for a student. Probably this is a good book for those who are already are familiar with the topics, but definitely not for students. For example, it talks about "one replication per cell" in chapter 6, but there are very less explanation. One of my take home exam question was about that, the book did not help me at all, not in the chapter, not in the exercise. Many other examples. It was a useless book for me, if I state my evaluation of the book. Definitely a complete revision is required.

Great book for people seriously thinking about a career in statistics. Its very insightful in the practices of modern statistical methods and it has plenty of examples to go by when designing an experiment. It also includes a few SAS programs to help the reader see real life applications of the concepts. I recommend this book to nurses, people in education and in the sciences.

Kuehl covers a lot of statistical designs, and provides great examples and practice problems. However, the book is not "user friendly" even for student who have had several semesters coursework in regression analysis. Also, the author tends to change his notation from chapter to chapter without telling the reader, thus creating great confusion. For example "r" or "k" could signify replicate. Some sections are poorly organized.

This book is great for that 400 level stats class. Especially when its required reading! Clearly states the model for each form of the ANOVA.

File Science Experiments) Human Body Experiments (Facts on File Science Experiments) Rain Forest Experiments: 10 Science Experiments in One Hour or Less (Last Minute Science Projects with Biomes) Experiments for Future Forensic Scientists (Experiments for Future Stem Professionals) Physical Science Experiments (Facts on File Science Experiments)