

Some references

- CR** Cox, D. R. and Reid, N. (2000). *The Theory of the Design of Experiments*. Chapman & Hall/CRC. [course text]
- DV** Dean, A. and Voss, D. (1999). *Design and Analysis of Experiments*. Springer-Verlag. [very thorough, many numerical examples]
- WH** Wu, D.F.J. and Hamada, M. (2000). *Experiments: Planning, Analysis, and Parameter Design Optimization*. Wiley. [emphasis on factorial designs and Taguchi type methods. Lots of very good examples]
- PE** Cox, D.R. (1958). *Planning of Experiments*. Wiley. [the classic]
- Mont** Montgomery, D.C. (2000). *Design and Analysis of Experiments*. (5th edition) Wiley. [very good reference, all the details]
- VR** Venables, W.N. and Ripley, B.D. (2003). *Modern Applied Statistics with S*. (4th? edition). Springer-Verlag.

Course information

The course instructor is Nancy Reid, SS6002, X8-5046; reid@utstat. Office hours by appointment; please email or ask in class. Course requirements will be 4-5 homework sets, plus a final homework. The course will cover the following topics: randomization, blocking, Latin squares, balanced incomplete block designs, factorial experiments, confounding and fractional replication. As time and interest allow we can also discuss clinical trials, components of variance, response surface methods, Taguchi methods, and optimal design. We will spend more time on details of design than on details of analysis, and try to spend roughly equal amounts of time on examples and theory. I'll assume that the basics of analysis of variance and regression are familiar. Computing as needed may be done in the package of your choice; I will usually use R.