Introduction to Design and Analysis of Economics Experiments  
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**Required text:** Box, Hunter and Hunter. (2005) *Statistics for Experimenters (2nd ed)*. Wiley.  

**Course Information**

**Overview:** This class provides an introduction to the design and analysis of economics experiments. The topics covered will be useful to anybody interested in running scientific experiments, but will be primarily geared toward behavioral experiments as conducted by economists and psychologists.

**Grades:** Grades are based on performance on exams, home assignments and in-class presentations. All students will be required to make at least one presentation of others’ research.

**Office Hours:** Professor Houser holds office hours in Fairfax or Arlington by appointment.

**Topics:**

1. Science, Experiments and Statistics  
2. Comparing two treatments  
3. Random sampling and the declaration of independence  
4. Randomization and blocking with paired comparisons  
5. Significance tests and confidence intervals  
6. Comparing k treatment means  
7. Randomized blocks and two-way factorial designs  
8. Designs with more than one blocking variable  
9. Modeling  
10. Factorial designs with blocking  
11. Fractional factorial designs with blocking  
12. Modeling and regression analysis  
13. Response surface methods  
14. Dependence, time series and repeated measures.

**Students with disabilities:** Students with Faculty Contact Sheets for this class need to present them to the instructor as soon as possible. Other students requiring reasonable accommodations, as covered under the Americans with Disabilities Act, should contact the Disability Resource Denter (DRC) to open up a DRC file and discuss needed accommodations. Questions and requests for reasonable accommodations should be directed to DRC, 234 SUB I, phone (7030 993.2474 or email dwyne@gmu.edu.

**Honor code:** George Mason University is an honor code university. Students pledge not to cheat, lie, plagiarize or steal in academic matter.