



## STATISTICS 650-4

# QUANTITATIVE ANALYSIS IN RESOURCE MANAGEMENT AND FIELD BIOLOGY

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Spring 2003  
DAY COURSE

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Instructor: DR. C. SCHWARZ (SSC K 10559)

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### **Prerequisites:**

The material in this course ought to be accessible to students with a basic course in statistics somewhere in their background. Most of the class will probably have forgotten most of what they once learned. Introductory lectures will provide a comprehensive review. The review will focus on the role of the basic inference techniques in scientific experimentation and sample surveys.

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### **Textbook:**

*JMP IN Version 4 for Windows & MacIntosh* by SAS Institute, publisher ITP Duxbury

### **Calendar Description:**

A practical introduction to useful sampling techniques and intermediate level experimental designs.

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### **Course Outline:**

The course will explore how to design effective experiments and surveys as well as how to analyze the results. Starting with the basics, we shall explore the standard types of experimental design, ending up with hierarchical designs and split plots. Standard survey techniques such as stratification and ratio and regression estimates will also be explored.

Students are encouraged to discuss their research with the instructor. With the students permission, student research problems that relate directly to the concepts being developed in the course will be used for class discussion.

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### **Grading:**

A grading scheme will be announced by the instructor at the beginning of the semester.

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*Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the posting of marks. Please pay careful attention to the options discussed in class at the beginning of the semester.*

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Revised October 2002