

GRSC6007 Applied Quantitative Research Methods

Content:

Assuming students' basic knowledge in measurement and statistical concepts, this course aims to equip students with computer-aided skills in organizing, transforming and analyzing data. It emphasizes proper usage of data analysis by computer software and intelligent interpretation of results, through hands-on learning during and after classes. Interactive statistical data analysis software called JMP will be used in the course.

The course will cover the practice of the following topics:

1. Describing and summarizing data
2. Measuring associations for qualitative and quantitative data
3. Hypothesis testing and estimation problems
4. Linear models
5. Time series basics
6. Non-linear models
7. Multivariate data analysis

The class will include plenty of hands-on practice.

Organization:

Each offering of the module comprises a total of twelve hours over four weekly sessions. Each weekly session will include hands-on experience of using statistical software.

Enrollment:

This course (or GRSC6034/6035/6036/6037) is compulsory for MPhil and 4-year PhD students registered in or after September 2013. Enrollment is restricted to students who are able to provide documentary evidence that they possess basic knowledge in measurement and statistical concepts. Enrollment of each module is limited to 56 students.

Assessment:

Pass/Fail: Report on statistical analysis of a data set.

Outcomes:

At the end of the course, students should have the practical skills to undertake simple statistical analysis themselves.