STAT 3008

Applied Regression Analysis

Teachers

- Instructor: Dr.YAU Chun Yip 邱俊業
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- Office: Lady Shaw Building (LSB) 110
- Office Hour: Mon 16:30-18:30

- Tutor: Mr. Lai Chun Hei
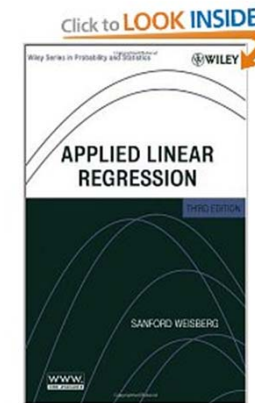 - Email: s1155002282@sta.cuhk.edu.hk
  - Office: Lady Shaw G24
- Tutor: Ms. Bian Ning
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Prerequisites:

- Background in mathematics and statistics
  - STAT 2001, 2006, 2007, 2008, 2009
- Or you are familiar with
  - Normal, t, F, chi-square distributions
  - Matrix operations
    - multiplication, inverse, trace
  - Multivariate calculus
    - Differentiate an multivariable function, i.e. gradient
  - Program: R
    - Download: http://cran.r-project.org/bin/windows/base/
    - tutorial: http://r-statistics.net/r-tutorial.html

Book and Notes

- **Lecture Slide:**
  - **Class Website**
    - **www.sta.cuhk.edu.hk/cyyau**
  - **Cover all you need to know, basically no need to buy book**
- **Textbook:**
  - **Weisberg, S. 2005. Applied Linear Regression (3rd Ed.). John Wiley & Sons**
  - **Most of the materials of the Lecture slide follows from this book**
- **Reference book:**
  - **Chatterjee and Hadi, 2006. Regression Analysis by Example (4th Ed.). John Wiley & Sons**
  - **Good book, easy to read and understand**

  - **Montgomery, Peck and Vining, 2006. Introduction to Linear Regression Analysis (4th Ed.). John Wiley & Sons**
  - **More advanced Math**

  - **Bingham, Fry, 2010 . Regression: Linear Models in Statistics**
  - **More advanced Math in a concise way**

Other Materials in the class website

- ## Regular assignments
  - About 4-5 assignments in total.
  - (Assignment Dropbox @ LSB 1/F)
  - Discuss the result of your analyses. Never turn in raw computer outputs or spread sheet files.
  - LATE assignment will NOT be graded.
- ## Exercises
  - Posted every week with solutions
  - What for?
    - Consolidating the concept
    - Help to do assignments
    - Training for Midterm/Final
  - No need to hand in, work hard yourself!
- ## Further exercises
  - www.sta.cuhk.edu.hk/cyyau/statmc

Grading

- Regular assignments (20%)
- Mid term exam (30%) 16/10 Thursday
- Final exam (50%)