STAT 8004 – STATISTICAL METHODS II

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REGRESSION METHODS

Lecture 1: Introduction

Course Information

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Main course topics

- Linear models
- Linear mixed models
- Nonlinear models
- Generalized linear models
- Bootstrap methods
- Smoothing methods

Grading

Homework	15%
Exam 1	25%
Exam 2	25%
Final Exam	35%

Homework

- All homework assignments will be posted via Blackboard.
- Due dates are written on the homework document, and will also be specified on Blackboard.
- Submission by uploading your homework to Blackboard is required.
- No grade will be given to late homework.
- You are welcome to work with other students on homework problems. You must, however, write your own answers to the questions. Copying another's work is prohibited.

Software

- STAT 8004 requires the use of R.

Textbooks

- [R&S] Rencher, R. C. and Schaalje, G. B. (2008). Linear Models in Statistics (2nd Edition), Wiley. Electronic copy of [R&S] is available via the Temple library. We will primarily use this book for the first half of the course. Library link

- Faraway, J. J. (2014). Linear Models with R (2nd Edition), Chapman & Hall CRC.

- Faraway, J. J. (2006). Extending the Linear Models with R: Generalized linear, Mixed Effects and Nonparametric Regression Models, Chapman & Hall CRC.

Exams

- In-class Exam 1.
- Take-home Exam 2.
- In-class Final Exam.

A brief review of matrix algebra

- R&S Chapters 2–3.