

Stat 597B: Semiparametric Regression and Its Applications
MWF 2:30-3:20pm 106 AG Engr

Credit: 3

Prerequisite: Linear Regression Analysis: Stat 511 & 512
Statistical Inference: Stat 513 & 514.

Academic Integrity: The Academic Integrity will be observed at all times in this course.
See detailed policy at www.science.psu.edu/academic/Integrity/index.html

Instructor: Richard Runze Li, Ph.D. **Office:** 413 Thomas Building
Phone: 865-1555 **E-mail:** rli@stat.psu.edu
Office Hours: Monday 3:30-4:30pm, and Wed. 3:30-4:30pm
If you are unable to meet during any of these hours, please schedule an appointment with the instructor for an alternative time.

Textbook: No required

Syllabus:

1. Brief Review on Linear Regression and Generalized Linear Models
2. Overview of Nonparametric Regression
3. Partially Linear Models
4. Varying-Coefficient Partially Linear Models
5. Analysis of Time to Event Data

Reference Books:

- Bickel, P.J., Klaassen, A.J., Ritov, Y. and Wellner, J.A. (1993). *Efficient and Adaptive Inference in Semiparametric Models*. John Hopkins University Press, Baltimore.
- Hardle, W. Liang, H. and Gao, J. (2000). *Partially Linear Models*, Springer-Verlag, New York.
- Ruppert, D. Wand, M. P. and Carroll, R. J. (2003). *Semiparametric Regression*, Cambridge University Press, New York.
- Yatchew, A. (2003). *Semiparametric Regression for the Applied Econometrician*, Cambridge Univ. Press, NY.

Attendance: Don't be late for classes.

Course Grade:

- Homework
- Final Project and Presentation
- Class Participation
- No exam