Statistics 225: Fundamentals of Biostatistics
Syllabus

Time: Thursday, 6:10p ~ 8:40p      Room: 2020 K 21

Instructor: Yinglei Lai, Assistant Professor of Statistics
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Office hours: Thursday, 3:00p ~ 5:00p.

Textbook: *Biostatistical Methods: The Assessment of Relative Risks*
by John M. Lachin ©John Wiley and Sons, 2000
Errata on [www.bsc.gwu.edu/jml/biostatmethods](http://www.bsc.gwu.edu/jml/biostatmethods)

Description: Biostatistical methods for asymptotically efficient tests and estimates of relative risks and odds ratios from prospective and retrospective matched and unmatched studies. Fixed and random effects models. Logistic, conditional logistic, and Poisson regression models. Maximum likelihood and efficient scores.

Prerequisite: Stat 201 and 202, or equivalent.

Grading:
- Exercises: 60%, *work independently*
- Final Examination: 25%, *closed book*. 
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Topics (tentative)

- Sep. 2: A.1 – A.4, 2.1 – 2.3
- Sep. 9: 2.4.1 – 2.4.3, 2.5, 2.6.1 – 2.6.4, 2.6.6 – 2.6.7, 2.7, 2.8.2
- Sep. 16: 3.2 – 3.3, 4.1 – 4.2, 4.3.1 – 4.3.4, A.5, 4.3.5 – 4.3.7
- Sep. 23: 4.4 - 4.7.1, 3.5.1 – 3.5.3
- Sep. 30: 4.7.2 – 4.9.2
- Oct. 7: 4.9.3 – 5.1
- Oct. 14: 5.2 – 5.5, 5.6.4
- Oct. 21: **Midterm examination**; 5.7, A.6
- Oct. 28: 6.1, 6.2.1-2, A.7, 6.2
- Nov. 4: 6.3 – 6.7
- Nov. 11: 7.1 - 7.3.4
- Nov. 18: A.9, 7.3.5, 7.4, A.8, 7.5
- Nov. 25: Thanksgiving break
- Dec. 2: 7.6, 8.1 – 8.2, A.10.1 – 2
- Dec. 9: Make-up class if necessary
- Dec. 16: **Final examination**