

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

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***
- Mid-term: 15%, ***closed book***.
- Final Examination: 25%, ***closed book***.

Statistics 225: Fundamentals of Biostatistics 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**