Stat 13, Intro. to Statistical Methods for the Life and Health Sciences.

- 1. Review list.
- 2. One proportion. Percent of sophomores.
- 3. Sampling issues.
- 4. One mean. Year number.
- 5. Two proportions. Left of class vs. right of class and percent of sophomores.
- 6. Two means. Left, right, and mean year.
- 7. Regression and correlation. Seat number and year number.
- 8. Causation explanations and extrapolation.
- 9. 3 means with center. CIs for comparing two means.

The final Fri Dec 9, 8am-11, right here, will be on ch1-7, 9, and 10. Bring a PENCIL and CALCULATOR and any books or notes you want. No computers. http://www.stat.ucla.edu/~frederic/13/F16.

## 1. Review list.

- 1. Meaning of SD.
- 2. Parameters and statistics.
- 3. Z statistic for proportions.
- 4. Simulation and meaning of pvalues.
- 5. SE for proportions.
- 6. What influences pvalues.
- 7. CLT and validity conditions for tests.
- 8. 1-sided and 2-sided tests.
- 9. Reject the null vs. accept the alternative.
- 10. Sampling and bias.
- 11. Significance level.
- 12. Type I, type II errors, and power.
- 13. Cls for a proportion.
- 14. Cls for a mean.
- 15. Margin of error.
- 16. Practical significance.
- 17. Confounding. (causation, extrapolation, curvature, heteroskedasticity).
- 18. Observational studies and experiments.

- 19. Random sampling and random assignment.
- 20. Two proportion Cls and testing.
- 21. IQR and 5 number summaries.
- 22. Cls for 2 means and testing.
- 23. Paired data.
- 24. Placebo effect, adherer bias, and nonresponse bias.
- 25. Prediction and causation.
- 26. Multiple testing and publication bias
- 27. Polling errors.
- 28. Correlation.
- 29. Regression.
- 30. Calculate & interpret a & b.
- 31. Goodness of fit for regression.
- 32. Common regression problems
- 33. Comparing multiple means with MAD
- 34. ANOVA & F-test.