## Week Topic

1. Scientific vs. non-scientific enquiry. Paradigms, theory, explanation, research. Conceptualizing: concepts \& variables. Ch 1, 2, and pp 171-172.
2. Research questions. Operationalizing research. Measurement. Four kinds of numbers. Categorical vs. continuous. Levels of scaling. Ch 3.
Validity and reliability. Ch 4, and pp 175-180.
3. Sampling: non-probability and probability sampling. Ch 5. Univariate descriptive statistics. Central tendency: mode, median, mean. Dispersion: range, IQR.Variance, standard deviation. Z-score. Ch 6, and pp 173-175.
4. Distributions, the normal distribution, areas under the normal curve. Ch 7.

The normal curve and sampling distributions, standard errors. Ch 8.
5. Inferential statistics, standard error of the mean Ch 9.

Confidence intervals, Z-test of a single mean. Ch 10.
6. Thursday October 12: Mid-term exam \#1

Bivariate descriptive statistics: cross-tabulation. Ch 11.
7. Covariance, correlation. Ch 13.

Regression. Ch 14.
8. Inferential statistics: statistical significance. Testing the null hypothesis. Ch 15. Chi-squared. Ch 16.
9. Z-test for difference between means. Ch 17. Review for mid-term exam.
10. Tuesday, November 7 or Thursday, November 9: Mid-term exam \#2
11. Tests for correlations. Significance of Pearson's r, difference between two r's. Ch 18, pp 145-148.
12. t-test for difference between means, ANOVA. Ch 19. Experiments, Ch 20.
13. Survey research, Ch 21.

## Grading:

1. Mid-Term exam \#1
2. Mid-Term exam \#2:
3. Final exam:
4. Assignments
5. Ten in-class quizzes random
6. Tutorial attendance and participation

Probable grading system

| $50 \%-59.999 \%$ | D |
| :---: | :--- |
| $60 \%-63.999 \%$ | C- |
| $64 \%-67.999 \%$ | C |
| $68 \%-71.999 \%$ | C+ |
| $72 \%-75.999 \%$ | B- |
| $76 \%-79.999 \%$ | B |
| $80 \%-83.999 \%$ | B+ |
| $84 \%-87.999 \%$ | A- |
| $88 \%-91.999 \%$ | A |
| $92 \%$ or higher | A+ |

