#### **COURSE OUTLINE:**

\*Weekly readings, assignments, discussion posts, will be due by the end of the day on Saturday (e.g. all Week one materials will be due by midnight on the first Saturday). Any required follow up to initial discussion threads will be required by the end of the following Wednesday.

#### I. Foundations of Inferential Statistics

Week 1 Introduction

(1/8 to 1/13) Chapter 1: Picturing Distributions with Graphs

Week 2 Chapter 2: Describing Distributions with Numbers

(1/14 to 1/20) Chapter 3: The Normal Distributions

Week 3 Chapter 4: Scatterplots and Correlation

(1/21 to 1/27) Chapter 5: Regression

# II. Producing Data

Week 4 Chapter 8: Producing Data: Sampling [brief] (1/28 to 2/3) Chapter 9: Producing Data: Experiments [brief]

[Quiz 1]

#### III. From Data Production to Inference

Week 5 Chapter 12: Introducing Probability [brief] (2/4 to 2/10) Chapter 13: General Rules of Probability [brief]

Week 6 Chapter 15: Sampling Distributions

(2/11 to 2/17)

Week 7 Chapter 16: Confidence Intervals [Mid-Term Exam]

(2/18 to 2/24)

### IV. Inference about Variables

Week 8 Chapter 17: Tests of Significance: The Basics

(2/25 to 3/2) Chapter 18: Inference in Practice

## **Spring Break**

## V. Inference about Relationships

Week 9 Chapter 20: Inference about a Population Mean

(3/10 to 3/16)

Week 10 Chapter 21: Comparing Two Means

(3/17 to 3/23)

Week 11 Work on data report (and catch-up) [Quiz 2]

(3/24 to 3/30)

Week 12 Chapter 22: Inference about a Population Proportion

(3/31 to 4/6) Chapter 23: Comparing Two Proportions

Week 13 Chapter 25: Two Categorical Variables: Tables and the Chi-Square Test

(4/7 to 4/13)

Week 14 [Looking forward] Chapter 26 Inference for Regression and

(4/14 to 4/20) Chapter 27: One-Way Analysis of Variance: Comparing Several Means

Week 15 [Data Report and Final Exam]

(4/21 to 4/27)