McMaster University

Mathematics and Statistics

$$\int_M d\omega = \int_{\partial M} \omega$$

Stats 2B03 Term 2

Lecture Schedule (Winter 2017)

Week 1: January 4-6
- **Lecture 1** - 1.1, 1.2 (overview, types of data)
- **Lecture 2** - 2.2, start 2.3 (frequency distributions, stem-and-leaf plots, visualizing data)

Week 2: January 9-13
- **Lecture 3** - finish 2.3, 2.4 (measures of center)
- **Lecture 4** - Research Ethics
- **Lecture 5** - 2.5 (measures of variation)

Week 3: January 16-20
- **Lecture 6** - 2.6, 2.7 (measures of relative standing, quartiles and percentiles, boxplots)
- **Lecture 7** - 3.2, 3.3 (probability - fundamentals, addition rule)
- **Lecture 8** - 3.4, 3.5 (multiplication rule, conditional probability)

Week 4: January 23-27
- **Lecture 9** - 4.2, start 4.3 (random variables, binomial distribution)
- **Lecture 10** - finish 4.3, 4.4, 4.5 (Poisson distribution)
- **Lecture 11** - 5.2, start 5.3 (standard normal distribution, applications of normal distributions)

Week 5: January 30 - February 3
- **Lecture 12** - finish 5.3, 5.5 (Central Limit Theorem)
- **Lecture 13** - 5.7 (assessing normality)
- **Lecture 14** - 6.2 (estimating a population proportion)

Week 6: February 6-10
- **Lecture 15** - 6.3 (estimating a poulation mean, σ known)
- **Lecture 16** - 6.4 (estimating a population mean, σ unknown)
- **Lecture 17** - 7.1, start 7.2 (basics of hypothesis testing)

Week 7: February 13-17
- **Lecture 18** - finish 7.2
- **Lecture 19** - 7.3 (testing a claim about a population proportion)
- **Lecture 20** - 7.4, start 7.5 (testing a claim about a population mean)

Week 8: February 20-24 (Midterm Recess)

Week 9: February 27 - March 3
- **Lecture 21** - finish 7.5, 8.2 (inferences about two proportions)
- **Lecture 22** - start 8.3 (inferences about two means)

- **Lecture 23** - finish 8.3, 11.1 (overview of analysis of variance)

Week 10: March 6-10
- **Lecture 24** - 11.2 (one-way ANOVA)
- **Lecture 25** - 11.2 (continued)
- **Lecture 26** - finish 11.2

Week 11: March 13-17
- **Lecture 27** - 9.2 (correlation)
- **Lecture 28** - start 9.3 (regression)
- **Lecture 29** - finish 9.3, start 9.4 (variation and prediction intervals)

Week 12: March 20-24
- **Lecture 30** - finish 9.4
- **Lecture 31** - start 9.5 (multiple regression)
- **Lecture 32** - 9.5 (continued)

Week 13: March 27-31
- **Lecture 33** - finish 9.5
- **Lecture 34** - 10.2 (multinomial experiments: goodness of fit)
- **Lecture 35** - start 10.3 (contingency tables: independence and homogeneity)

Week 14: April 3-6
- **Lecture 36** - finish 10.3
- **Lecture 37** - 12.1 Overview of Nonparametric Statistics

(Clases end on April 6th)