PSYC 480/480L -- INTERMEDIATE STATISTICS AND LAB
Section 01 -- Fall 2015 -- TTh 8:00 - 9:15 Brittain 245 and T 3:05-5:55 Brittain 245
Section 02 -- Fall 2015 -- TTh 10:50-12:05 KESH 221 and W 3:00-5:50 KESH 221
COASTAL CAROLINA UNIVERSITY -- Dr. King

Enrollment Note: You cannot be enrolled in Psyc 480-01 without also being enrolled in Psyc 480L-01 and vice versa. You cannot be enrolled in Psyc 480-02 without also being enrolled in Psyc 480L-02 and vice versa. You CANNOT cross lecture and lab sections. (I.e., 480-01 will NOT go with 480L-02, etc.) Psyc 225/225L or equivalent and Math 130 or equivalent are prerequisites for this course.

Background: This is a second statistics course. It is assumed that you covered the following topics in your first stat course: variables (independent and dependent), categorical (qualitative, nominal) and numeric (quantitative, interval and ratio) levels of measurement, frequency distributions, measures of center or central tendency (mean and median), variability and how to quantify it (sum of squares, variance, standard deviation, interquartile range), standardization (z-scores), confidence intervals, basic hypothesis testing, t-tests, correlation, line graphs, bar graphs, histograms, box plots, scatter plots. We will review some of this VERY QUICKLY at the beginning of the semester.

Textbook / Website: The REQUIRED textbook for this course is David C. Howell's *Fundamental Statistics for the Behavioral Sciences*, 8th edition (2014). There is a website to support the textbook and this course. Go to ww2.coastal.edu/kingw and click on the link to Psyc 480 for my website.

Calculator and Software: You should have a good scientific calculator, *and bring it to class*. It does not have to be a graphing calculator. Using your phone is NOT acceptable, as you will not be allowed to use it during exams. You will also want to have access to a statistical software package called R. It is installed on all the computers in the classrooms, as well as in the student computer lab in Wall 108, and on all the computers in Kimbel Library and Bryan Information Commons (so I'm told). You can get a free copy at www.r-project.org to install on your own computer, and I strongly suggest that you do this. R is available for PCs, Macs, and Linux, but not for Chromebooks or tablets (such as iPads). Once you learn how to use R, it can be used in place of a calculator.

Attendance Policy: I take attendance every day that I remember to do so, because I am required to. There are no points or penalties for (non)attendance. Don't count on doing well if you don't attend every class and lab, however. If you miss a class for any reason, don't ask me to repeat what I said. Get notes from a classmate. If you miss class on a day when we have a graded exercise, you may not make it up. If you miss a class, I do not need to know why. If you miss class on an exam day, you'll have to take a make-up, provided you have a valid, documented excuse. (E.g., hospitalization, kidnapped by aliens - bring photos!) Believe me, you don't want to take a make-up!

Facebook Policy: You may not use the classroom computers for ANY purpose other than class work during class time. Any and each infraction will result in a penalty applied to your final grade in the course. You may also not use your phone or tablet during class time. Turn them off and put them away.

Office and Office Hours: My office is Brittain Hall 228. This semester my office hours are TTh 9:25-10:40, 12:15-1:30, and T 1:40-2:55. I am not easy to reach by phone, and I will not return your call. My e-mail address is kingw(at)coastal(dot)edu. Appropriate topics for e-mails include questions with simple answers that can be asked and answered briefly and that you cannot look up the answers to for yourself, for example by referring to this syllabus or the website. I'll also answer questions about the R software by e-mail. If you're working outside of class and get an error message, I can probably get you straightened out IF you send the command you gave AND the error message you got.
Course Outline: Don't hold me to this, but this is the plan.

Weeks 1-2: Review
Textbook chapters 1-9
Followed by a big honkin' exam!

Week 3: Simple Regression
Textbook chapter 10

Weeks 4-5: Multiple Regression
Textbook chapter 11

Weeks 6-7: t-Tests
Textbook chapters 12-14

Week 8: Simple ANOVA
Textbook chapter 16

Week 9-10: Factorial ANOVA
Textbook chapter 17 (balanced only)

Week 11: Unbalanced designs
Material to be handed out in class

Week 12: Repeated measures
Textbook chapter 18

Week 13: Chi Square Tests
Textbook chapter 19

Week 14: Distribution Free Tests
Textbook chapter 20

Grading: The method by which you will be tested on this material will be discussed in class.

If you miss an exam, you better have a very good reason why, you better be able to document it, and you better be in touch with me quickly, because once the exams are handed back in class there are no more make-ups. In-class exercises (if any) may not be made up.

Grading will be based on total points achieved on these exams and exercises. The grades will be based on the following scale: 90%-100% A, 85%-89.9% B+, 80%-84.9% B, 75%-79.9% C+, 70%-74.9% C, 65%-69.9% D+, 60%-64.9% D, 0%-59.9% F. You will receive the same grade in both the lecture and lab sections of the course.

Dates to Remember: You may want to make note of the following dates.

- Tuesday, August 18th -- first day of class
- Tuesday/Wednesday, August 18-19th -- first lab meeting (yes, we are meeting!)
- Thursday, October 22nd -- last day to drop with a W; thereafter a WF will be assigned
- Friday, November 13th -- last day to apply for May graduation (Note: this is the date the application has to be in the dean's office. You should see your adviser at least two weeks previous to this date!)
- Monday, November 23rd-Friday, November 27th -- Thanksgiving Break
- Wednesday, December 2nd -- last day of classes for this semester (both class and lab will meet!)
- Thursday, December 3rd -- study day (no class)
- FINAL EXAM - to be announced

Course Objectives: The goal of this course is to familiarize students with techniques used to analyze scientific data in the behavioral sciences. This course will prepare students to...

- compute and interpret basic and advanced descriptive statistics
- compute and interpret basic and advanced inferential statistics
- display data and relationships between variables graphically

Student Learning Outcomes: Upon completion of this course, students should be able to...

- look at a dataset, determine what the explanatory and response variables are, determine if they are categorical or numerical, and propose a reasonable statistical analysis.
- do a competent statistical analysis of the data
- see, analyze, and explain statistical relationships in categorical data.
- see, analyze, and explain statistical relationships in numerical data.

Disclaimer: The instructor reserves the right to make changes to this syllabus should the need arise. All such changes will be announced in class and posted at the class website.

Below is the link for the PSYC 480 Intermediate Stats Microsite.
http://www.cengagebrain.com/course/1-1W0D25Y
(I'm not sure what this is, but the book publisher told me it might be helpful.)

While I'm at it, this is the link to Dr. Howell's website. I know it should be helpful!
https://www.uvm.edu/~dhowell/