This course provides an introduction to the use of statistics for social science data analysis. Students are expected to develop an understanding of commonly used descriptive and inferential statistics and to become competent in the use of the Statistical Package for the Social Sciences (SPSS) software.

This course does **not** fulfill the university's Social Science Core requirement.

Course **REQUIREMENTS** include:

(a) **Three 75-minute quizzes (50%).** Four quizzes will be given, however only your three best scores will count. Make-up quizzes will **NOT** be given; if you miss one quiz, it will be the one that is not counted. A second missed quiz will count as a zero, unless **BOTH** absences are due to documented medical reasons, or upon my receipt of written excuses from a Dean's Office. Each quiz will cover about a 3-4 week period of the course. Hand calculators may be used. I will give you a one-week notice before each quiz, but IT IS YOUR RESPONSIBILITY TO KNOW WHEN EACH QUIZ WILL BE GIVEN. The quiz dates below are estimated dates; I will try to stick closely to the dates listed, but I cannot guarantee the dates until one week prior to a quiz.

b) **A final exam (25%).** The final will be cumulative, covering the entire course. The final exam is held on the day/time set by the Registrar: Tuesday, May 10 at 9:00 am. **THERE ARE NO EXCEPTIONS.** Do not ask for an alternative date. Do not buy airline tickets for an earlier departure. If you must get sick on that date, get very sick.

(c) **Homework assignments (25%).** There will be 7 homework assignments; these will require work with SPSS. These are due on the date assigned; late submissions will be penalized 10% for each calendar day late. **NO EXCEPTIONS!** While your lowest quiz may be dropped, **ALL** of the HWs will count, so do complete all of them, and on time. Each HW is about 3% of your course grade, so a missed HW can change a B to a B-.

**VERY IMPORTANT:** Do keep a copy of all of your work. Do retain all of the work that is returned to you (homework and quizzes) until after you have received your final course grade.
TEXTS:

The following **REQUIRED** text is available at the BC Bookstore, among other places:


**RECOMMENDED:** You might also want to download the "SPSS Brief Guide 22.0.pdf" from this web page (but NOTE that the 'Brief Guide" has 92 pages, so you may not want to print it):


The “Brief Guide” can be used as a reference manual for the homework assignments.

There are many other excellent resources on the web. Here is one example:

http://www.ats.ucla.edu/stat/spss/

Finally, here is one example from YouTube (but there are many, many others; look around and find the approach that works for you):

http://www.youtube.com/watch?v=J0nPaZ2z1VE

Instructions for installing Citrix (we will discuss this on 1/21) are here:

http://www.bc.edu/offices/help/teaching/app_server.html

The following books are on reserve in O’Neill. The books with SPSS in the title may be useful for the homework assignments. The texts might be of general utility; there are many others, not listed here, in the library. Below, under “optional” reading, I usually list only the Linneman text, but any of the others can be of use. You should try several of these and see which works best for you.

Thomas J. Linneman, SOCIAL STATISTICS.    HA29 .L83118
Marija Norusis: *SPSS 17.0 (or 18.0 or 21.0) GUIDE TO DATA ANALYSIS*  
Prentice-Hall 2008                    HA32/N67222
Marija Norusis: *IBM SPSS 19.0 (or 17.0 or 21.0) STATISTICAL PROCEDURES COMPANION*  
HA32. N6526
Elliot T. Berkman and Steven P. Riese, A CONCEPTUAL GUIDE TO STATISTICS USING SPSS  
HA32 .B47 2012
Nancy Leech et al., *SPSS FOR INTERMEDIATE STATISTICS* (3rd ed.) HA32,L444
J. Levin & J. Fox, *ELEMENTARY STATISTICS IN SOCIAL RESEARCH* (5th ed.)  
Pearson 2004                           HA29.L388
Michael Malec.  *ESSENTIAL STATISTICS FOR SOCIAL RESEARCH* (2nd ed.).  
GENERAL SOCIAL SURVEYS: CUMULATIVE CODEBOOK HA155.S55
T. Smith and B.J. Arnold, *ANNOTATED BIBLIOGRAPHY OF PAPERS USING THE GENERAL SOCIAL SURVEY*
SOCY2200 Syllabus, Spring, 2016

TENTATIVE COURSE OUTLINE (Actual dates may vary)

WEEK OF: TOPIC AND READINGS

Jan. 19: Introduction; SPSS and GSS
Objectives: Review of basic math. To learn how to access SPSS in the BC environment. Other topics as deemed appropriate.


Jan. 26, Feb. 2, 9: Centrality and Dispersion
Objectives: to be able to use, and interpret the output of, the FREQUENCIES and DESCRIPTIVE procedures in SPSS.
Topics Considered: level of measurement (nominal, ordinal, interval, ratio), histograms, measures of central tendency, measures of dispersion, percentiles, z-scores, mean, median, mode, variance, standard deviation, standard error, skewness, range, the normal distribution. Other topics as deemed appropriate.

READ: Healey, Ch. 3-4. Optional: Linneman: Ch. 3.

(FQUIZ 1 on or about Thursday, Feb. 11)

Feb. 16, 23, March 1 Probability, Sampling, and Estimation; the normal curve; z-scores; hypothesis testing; the t-test
Objectives: to be able to use, and interpret the output of, the T-TEST and ONEWAY procedures.
Topics Considered: probability; sampling distribution, samples vs. populations, simple random samples vs. other types of samples; the research hypothesis, the null hypothesis; directional vs. nondirectional research hypotheses; alpha and the critical region; Type I vs. Type II error; statistical significance vs. substantive significance, sampling distribution of the mean, confidence intervals, one-tailed vs. two-tailed tests; the t-test; equal (or pooled) variance estimate vs. unequal (or separate) variance estimate; simple one-way analysis of variance. Other topics as deemed appropriate.

READ: Healey, Chs. 5-8. Optional: Linneman: Ch. 5 & 6; Levin & Fox, Chs. 10 and 11; Malec, Chs. 5-7.

(QUIZ 2 on or about Thursday, March 3)

NO CLASSES ON MARCH 8 or 10: SPRING BREAK
March 15: Analysis of Variance

**READ:** Healey, Ch. 9. **Optional:** Linneman: Ch. 6.

**Topics Considered:** equal (or pooled) variance estimate vs. unequal (or separate) variance estimate; simple one-way analysis of variance. Other topics as deemed appropriate.

March 22, 29 Measures of Association (Nominal Level)

**Objectives:** to be able to use, and interpret the output of, the **CROSSTABS** procedure, to understand the distinction between a measure of association and a test of significance, to understand the concept of statistical inference and the uses and misuses of tests of significance.

**Topics Considered:** measures of association (nominal measures, Chi-Square, PRE measures, ordinal measures; the elaboration paradigm (explanation, interpretation, specification, spurious relationships, suppressor variables); main and interaction effects in crosstabs tables. Other topics as deemed appropriate.

**READ:** Healey, Chs. 10-11. **Optional:** Linneman: Ch. 4;

**NO CLASSES ON MARCH 24: HOLY THURSDAY**

April 5, 12 Measures of Association (Ordinal Level)

**Topics Considered:** Gamma, Tau, and d; Spearman's Rho; the elaboration paradigm (explanation, interpretation, specification, spurious relationships, suppressor variables); main and interaction effects in crosstabs tables. Other topics as deemed appropriate.

**Objectives:** as above.

**Topics Considered:** Gamma, Tau, and d; Spearman's Rho; the elaboration paradigm (explanation, interpretation, specification, spurious relationships, suppressor variables); main and interaction effects in crosstabs tables. Other topics as deemed appropriate.

**Objectives:** as above.

**(QUIZ 3 on or about Thursday, April 14)**

April 19, 26 Measures of Association (Interval Level)

**Objectives:** to be able to use, and interpret the output of, the **CORRELATIONS** and **PARTIAL CORR** procedures.

**Topics Considered:** the Pearson correlation coefficient, R-square, slope, intercept, the equation for a regression line, predicted value vs. actual value, standard error of estimate, use and interpretation of scattergrams; partial correlation, multiple correlation. Other topics as deemed appropriate.

**READ:** Healey, Chs. 13-14. **Optional:** Linneman: Ch. 7 & 8.
(QUIZ 4 on or about Thursday, May 3)

THE FINAL EXAM WILL BE GIVEN ONLY ON
THE DAY SET BY THE REGISTRAR:
SATURDAY, MAY 10 AT 9:00 AM.
THERE WILL BE NO MAKE-UP EXAM.

CLASSROOM ETIQUETTE:
• I will always try to begin class on time; I also expect you to be here on time.
• Unless you have a medical condition (of which you should notify me), please use the
  bathroom before class; do not leave the room for a bathroom (or other) break unless it is
  an emergency.
• The classroom is not a dining hall; no food is allowed; a liquid in a spill-proof
  container is allowed. Have your breakfast before class begins.
• Gentlemen do not wear hats indoors, except for religious reasons.

AT ALL TIMES, THE CLASSROOM IS A NO ELECTRONIC DEVICE ZONE.
PLEASE TURN OFF YOUR CELL PHONE
AND ALL THINGS THAT RING, BEEP,
OR OTHERWISE MIGHT INTRUDE OR DISTRACT.
(This includes laptop computers, unless you have my specific permission.)

ACADEMIC INTEGRITY

It is your obligation to be fully aware of the Boston College policies on academic
honesty. ANY violation may subject the offender to severe penalty, including course
failure. If you are not familiar with the Boston College policy on academic honesty, see:

http://www.bc.edu/integrity

DISABILITY ACCOMMODATION

If you are a student with a documented disability seeking reasonable accommodations in
this course, please contact Kathy Duggan, (617) 552-8093, dugganka@bc.edu, at the
Connors Family Learning Center regarding learning disabilities and ADHD, or Paulette
Durrett, (617) 552-3470, paulette.durrett@bc.edu, in the Disability Services Office
regarding all other types of disabilities, including temporary disabilities. Advance notice
and appropriate documentation are required for accommodations.