Sociology 201QL
Quantitative Analysis in Sociology
Fall 2018
Section 010: T/R 9:30 – 10:50 am   OM 28

Professor: Dr. Jason Crockett   Office: Old Main 458
Email: crockett@kutztown.edu   Phone: 484-646-4290
Office Hours: M/W 11am-1pm; T/R 4:30-5pm; or by appointment

A Note on Office Hours and Communications:
You may make an appointment with me during or outside of posted office hours to discuss matters related to class or your college experience. You are also welcome to drop by and just chat during posted office hours. Other than office hours, email is the best way to contact me – *please include your class number and section in the subject line (e.g., SOC 201-010: question about assignment)*! I will generally respond within 24 hours. Class announcements may be made periodically via KU email and/or D2L, so be sure to check those accounts daily.

Course Overview and Objectives

PREREQ: SOC 010, MAT 017 or higher except 040 Geometry & 045 Women in Mathematics

The purpose of this course is to familiarize students with the basic concepts of quantitative analysis in sociological research and provide *practical* training in computer-assisted analysis at a *beginner* level. Emphasis will be placed on hands-on experience with manipulation and analysis of quantitative data. Sociology majors may take either SOC 200 or 201 to fulfill core statistical training requirements. No students (Sociology or non-Sociology majors) may receive credit for both SOC 200 and SOC 201 due to substantial overlap. This course is designed so that sociology majors and other students interested in a sociological perspective on statistics can gain practical experience analyzing sociological data with statistical programs such as SPSS.

Upon completion of the course you should be able to:
1) Describe the goals and purposes of quantitative sociological research and analysis
2) Explain the relevance of quantitative analysis on the job market and the relevance of statistical literacy to everyday life
3) Produce graphs and tables of descriptive sociological data with a statistical program
4) Evaluate the central tendency, variability, and shape of a statistical distribution based on sociological descriptive data from a statistical program
5) Produce output from a bivariate analysis of sociological data with a statistical program
6) Evaluate the relationship between the two variables in output from a bivariate analysis of sociological data
7) Produce output from a multivariate regression analysis of sociological data with a statistical program
8) Evaluate the statistical significance of output from a multivariate regression analysis of sociological data

Course Materials

Unless otherwise indicated, all reading for this course is <u>required</u> and <u>must be completed at the time listed</u> (see Course Schedule below). The textbook for the course is:

Sweet, Stephen and Karen Grace-Martin. 2012. *Data Analysis with SPSS: A First Course in Applied Statistics*. **4th Edition**. Allyn & Bacon.

<u>You must have a complete copy of *Data Analysis with SPSS* and in many classes having the book will be required, so I recommend you go ahead and get in the habit of bringing it to classes.</u>

A supplemental text is recommended and available on reserve at the library:

Kranzler, John H. 2011. *Statistics for the Terrified*. **5th Edition**. Prentice Hall.

Copies of either text should be available for purchase or rent through the campus bookstore and online booksellers. If you order online <u>be sure you are getting the correct edition and be sure the book will be delivered in a timely manner</u>! Additional materials may be handed out in class or posted under the "Content" section of the D2L site.

For the majority of the course we will be doing hands-on work with SPSS Statistics software. SPSS Statistics software is available to use for free on all of the laptops in our classroom, as well as many lab-networked computers on the Kutztown University campus. If you would prefer to have access to SPSS software on your personal laptop or desktop, a discounted "Student Version" is available. Information on purchasing your own copy of SPSS can be found here: http://www.onthehub.com/spss/ **NOTE:** Purchasing a personal copy of SPSS is *<u>NOT</u>* required for this course.

Course Requirements

Class Introduction & Upload Picture	5pts
Attendance	10pts
Exercises	35pts
Statistics Research Project	25pts
Final Exam	25pts
	100pts

A	more than 89pts
B	80-89pts
C	70-79pts
D	60-69pts
F	less than 59pts

Class Introduction & Upload Picture

Go to the "Discussion" tab on D2L then post a short introduction to yourself under "Class Introductions." Items I'd like you to include are detailed in the topic description. This will help me to get to know you as students and also for students to get acquainted with one another (particularly relevant in this course where collaborative learning will be a norm).

Upload a classroom-appropriate portrait of yourself on D2L. You may do so through the D2L profile system or under the "Picture" folder of "Assignments" tab. This will help me to connect names with faces – so make sure I can see your face clearly in the picture. If you don't have a(n appropriate) picture to post or need help uploading your picture, please come to office hours.

Attendance

This is a hands-on, lab-oriented course – taking the time to practice and get acquainted with the statistical software is crucial to your success. Therefore, I will regularly assess attendance for this class. Attendance for 20 or more days will receive full credit. Attendance for fewer than 20 days will result in partial or no credit for attendance, at my discretion.

Exercises

Most of the class will be devoted to "practicing" the statistical concepts and methods we will study. To reflect this, the largest portion of your grade is based on successful completion of assignments designed to help you practice these skills. We will spend much of our time in class working on the exercises, although in some cases you may need to devote some time outside of class to complete as well.

Statistics Research Project

By the end of the semester, each student will submit a research project based on statistical analysis of previously collected ("secondary") survey data. That is, you will pose a research question, hypothesize an answer, and use existing survey data to perform statistical tests of your hypothesis. Details will be posted under the "Content" tab of the D2L site.

Final Exam

The Final Exam will address knowledge and comprehension of key concepts from the course. Details will be announced in class and posted under the "Content" tab of the D2L site as we approach the end of the semester.

NOTE: If at any point during the course you find that you are not doing as well as you hoped or expected, you are encouraged to contact me and <u>meet with me immediately; do not wait until the end of the semester</u>.

Course Policies

Absences and Late Work
It is your responsibility to attend and participate in class as well as to ensure course requirements are submitted properly and on time. Do verify any submissions to the D2L system have in fact uploaded properly. Do not wait until the last minute. That said, I understand that during the semester some students may face obstacles to completing course requirements due to such things as personal illness, computer or internet problems, or family/work responsibilities.

If you miss a class session (excused or not), do not ask me for notes or a personal tutorial regarding information covered in the missed class. You should make arrangements with one or more classmates in regard to sharing notes or other information missed because of absences. This makes it a good idea to exchange contact information with fellow students early in the course. If you miss exercise "labwork" time, keep in mind you have access to SPSS through any networked campus lab computer and can work on exercises outside of class time.

Students may elect to take up to a two-day grace period on any assignment (in this class meaning exercises or the research project paper), no questions asked. If at the end of this grace period you are still having trouble completing the assignment, you are required to meet with me to go over your ideas for the assignment and set a schedule for completing the assignment. Students that follow these guidelines will receive full credit. Otherwise, assignments may be accepted for partial credit on a case-by-case basis. **I do not accept unsolicited emailed assignments – late assignments should be submitted to the "Late Box" under "Assignments" on D2L.**

The Final Exam may be made up only under *unusual* circumstances. Students should make an effort to notify me *beforehand* to request approval of a make-up exam. If this is impossible, please contact me by email *as soon as possible*. Students that make arrangements with me within a reasonable time frame will receive full credit. Otherwise, an opportunity to earn partial credit may be awarded at my discretion.

Academic Honesty
You are responsible for familiarity with the Kutztown University Academic Honesty Policy:
http://www.kutztown.edu/about-ku/administrative-offices/student-conduct/policies-and-procedures/academic-honesty/academic-honesty-faq.htm
At a minimum, academic dishonesty will result in a failing grade.
During exams, all personal items should be put away other than the exam materials (exam sheet, answer sheet(s), and writing implement). Hats and caps with brims must be turned around or removed. Unapproved use of any electronic device for any reason during an exam may be considered unauthorized assistance and a breach of the Academic Honesty Policy.

Accommodations
If you anticipate the need for reasonable accommodations to meet the requirements of this course (for example, due to disability, physical injury, PTSD, or TBI), please contact the Disability Services Office (215 Stratton) and/or contact me privately so that I can assist you and preserve confidentiality. Please plan to meet with me to discuss accommodations and how my course

requirements may affect your ability to fully participate. More information is available at: http://www.kutztown.edu/about-ku/administrative-offices/disability-services.htm

Classroom Behavior
It is my policy to maintain a respectful, safe classroom and it is everyone's responsibility to help maintain such an atmosphere. A respectful, safe classroom ensures a positive learning environment in which everyone can explore class ideas fully. Respectful good practices include, but are not limited to, such things as coming to class on time, turning off cell phone ringers, and using people's preferred names and/or pronouns. (It is also good to practice these kinds of habits since they will be expected behaviors by most professional employers and graduate school supervisors.) Distracting or rude behavior may result in you being asked to leave the classroom. Consistently disruptive behavior will result in you being dropped from the course.

We all have different points of view, different personal values, different life experiences, and different personal preferences that we bring with us to the classroom. Course material may challenge attitudes and assumptions, exposing you to ideas that will require you to think critically, and perhaps differently. You may encounter ideas of which you have never heard or that make you feel uncomfortable. Each student has the right to respectfully disagree with an idea, concept, or opinion that is written or expressed by myself or other learners. While disagreement is expected, hostility is not. A climate of tolerance and respect is essential. Harassment, intimidation, or derogatory comments toward any individual or group will not be tolerated and will result in you being dropped from the course.

Extra Credit
Please share any on-campus or off-campus events that relate to sociology (that covers a lot: topics touching on institutions such as the family, education, politics, and the economy, or social categories such a race, class, gender, and sexuality, for example, are likely to be relevant to sociology) and I will be happy to announce such activities in class. I rely on students' knowledge of such activities as one source for extra credit opportunities. Any extra credit opportunities will be announced as such in class and the opportunity to earn extra credit will be available to all students. Do not request individual extra credit for this class.

Extreme Weather
If severe weather becomes an issue, you should check the Kutztown University website or hotline (610-683-4649) for information concerning the campus-wide cancellation of classes.   I may also post a specific announcement on D2L.

Questions
If you have questions about this course, please check this syllabus or D2L for answers. If you ask me a question that is answered in the syllabus or on D2L, I will refer you to those sources.

Tentative Course Schedule

Note: I reserve the right to modify the schedule as deemed appropriate during the semester. Some things are bound to change due to class needs, how quickly students grasp material, and class dynamics. Any changes will be announced in the course website "News" section.

Section I: Why Study Statistics?

To begin the semester we will explore the uses of quantitative sociological research (sociological statistical analysis), how quantitative analysis is used in various jobs and careers (and in other areas of life), and why familiarity with statistical methods (statistical literacy) is useful in everyday life.

WEEK 1 (Aug 28 & 30) – Course Introduction

> **Introductory Reading for Tuesday**
> - D2L – Syllabus, "Introduction to your professor"
>
> **D2L Assignment for Tuesday**
> - Post a picture of yourself on D2L
> - Post an introduction to yourself under the "Discussion" tab
>
> Recommended Reading:
> - *Terrified*, Ch 1 – Effective Strategies for Studying Statistics (pp. 2-6)
> - *Terrified*, Ch 2 – Overcoming Math Anxiety (pp. 7-14)

WEEK 2 (Sept 4 & 6) –

> **Reading**
> - *Data Analysis*, Ch 1 – Key Concepts in Social Science Research (pp. 1-12)
>
> Recommended Reading:
> - D2L – *Constructing Social Research*, Ch 2 & 7
> - *Terrified*, Ch 3 – Basic Math Review (pp. 15-27)

F Sept 7   LAST DAY TO POST INTRODUCTIONS (by 11PM D2L Submission)

Section II: Statistical Basics

From an introductory footing in the uses of quantitative analysis, we will move on to examine the underlying concepts that statistics are based upon: frequency distributions, the normal curve, and standard scores. Along the way we'll practice the most basic form of quantitative analysis: descriptive statistics (aka univariate statistics).

WEEK 3 (Sept 11 & 13) –

> **Reading**
> - *Data Analysis*, Ch 2 – Getting Started: Accessing, Examining, and Saving Data (pp. 23-37)
>
> Recommended Reading:
> - *Terrified*, Ch 4 – Frequency Distributions (pp. 30-41)

WEEK 4 (Sept 18 & 20) –

    Reading
-     *Data Analysis*, Ch 3 – Univariate Analysis: Descriptive Statistics (pp. 45-68)

    <u>Recommended Reading:</u>
-     *Terrified*, Ch 5 – Descriptive Statistics (pp. 42-55)

WEEK 5 (Sept 25 & 27) –

    <u>Recommended Reading:</u>
-     *Terrified*, Ch 6 – The Normal Curve (pp. 56-61)
-     *Terrified*, Ch 7 – Percentiles and Standard Scores (pp. 62-77)

WEEK 6 (Oct 2 & 4) –

    Reading
-     *Data Analysis*, Ch 4 – Constructing Variables (pp. 77-92)

WEEK 7 (Oct 11)
T Oct 9   FALL BREAK - NO CLASS
    <u>Recommended Reading:</u>
-     *Terrified*, Ch 10 – Introduction to Inferential Statistics (pp. 98-111)
-     *Terrified*, Ch 13 – Nonparametric Statistics – Chi-Square (pp. 138-143)

HALFWAY POINT OF THE SEMESTER

Section III: Bivariate and Multivariate Analysis

Extending from this basic general knowledge of quantitative analysis, we will take a more in-depth and hands-on look at how to examine the relationship between two different variables: bivariate analysis. Once we have a handle on examining the relationship between variables we will expand on that experience by adding additional variables!

WEEK 8 (Oct 16 & 18) –

    Reading
-     *Data Analysis*, Ch 5 – Assessing Association through Bivariate Analysis (pp. 105-124)

<u>Recommended Reading:</u>
-     *Terrified*, Ch 8 – Correlation Coefficients (pp. 80-89)

WEEK 9 (Oct 23 & 25) –

    Reading
- *Data Analysis*, Ch 6 – Comparing Group Means through Bivariate Analysis (pp. 135-149)

<u>Recommended Reading:</u>
- *Terrified*, Ch 11 – The *t* Test (pp. 112-124)
- *Terrified*, Ch 12 – Analysis of Variance – ANOVA (pp. 125-136)

WEEK 10 (Oct 30 & Nov 1) –

    Reading
- *Data Analysis*, Ch 7 – Modeling Relationships of Multiple Variables with Linear Regression (pp. 161-182)

<u>Recommended Reading:</u>
- *Terrified*, Ch 9 – Linear Regression (pp. 90-96)

WEEK 11 (Nov 6 & 8) –

    Reading
- *Data Analysis*, Ch 9 – Writing a Research Report (pp. 213-222)

WEEK 12 (Nov 13 & 15) –

    Workshop Research Reports

WEEK 13 (Nov 20) –
R Nov 22   NO CLASSES – THANKSGIVING BREAK
    Workshop Research Reports

WEEK 14 (Nov 27 & 29) –

    Workshop Research Reports

WEEK 15 (Dec 4 & 6) –

    Workshop Research Reports

F Dec 7   STATISTICS RESEARCH PROJECT DUE @ 11PM (D2L Submission)

EXAM WEEK

010: R Dec 13, 8-10am – FINAL EXAM