Syllabus for SOC 6170, Section 1
Introduction to Sociological Data Analysis
Fall 2016

Location:

MW 10:00am–11:15am, W113 Seashore Hall

Professor: Bryce J. Dietrich

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Office Hours:	W 1:30–4:30pm, and by appointment

Text: *Introductory Statistics*, Neil A. Weiss, 9th Edition, ISBN 978-0-321-69122-4.

Software: *STATA*, 14th Edition.

You are more than welcome to acquire your own copy of STATA, but I will be using the University of Iowa's Virtual Desktop. You can find installation instructions here. They also provide a comprehensive list of the software they provide in this article. If you are interested in additional STATA resources. Others have found the following books to be helpful. These books are **NOT** required for purchase. I list them here for reference purposes:

A Gentle Introduction to STATA, Alan C. Acock, 5th Edition, ISBN 978-1-59718-185-3

Data Analysis Using STATA, Ulrich Kohler and Frauke Kreuter, 3rd Edition, ISBN 978-1-59718-110-5

Material to be Covered: This course is an introduction to the basic statistical methods used in Sociology. We begin with the nature of statistics and end with understanding the relationships between two variables. Even though we will learn the foundations of statistical inference, the course will be more applied than theoretic. Ultimately, this course should

provide all of the foundational material needed for Linear Models in Sociological Research, the second course of the required methods sequence in Sociology. Given that, a large portion of the class will be devoted specifically to learning how to use STATA. We will use this software for a variety of tasks, ranging from simple data management to more advanced graphing.

Homework: Problem sets are an important part of the curriculum and should help you prepare for the exams. You are encouraged to discuss your work with other students, but you must complete assignments on your own and turn in your own work. The problem sets will be **DUE** on the following dates: **9/2**, **9/16**, **9/30**, **10/14**, **10/28**, **11/11**, and **12/9**. Each problem set is worth 5%. Collectively, this is 35% of your final grade.

Exams: There will be a midterm and final exam. These exams will be on **10/5** and **12/?**. The midterm exam will be worth 30% of your final grade. The final exam will be worth 35% of your final grade.

Grading:

Final Exam	35%
Midterm Exam	30%
Homework 1	5%
Homework 2	5%
Homework 3	5%
Homework 4	5%
Homework 5	5%
Homework 6	5%
Homework 7	5%

Scale:

A+	98-100%
A	93-97.99%
A-	90-92.99%
B+	87-89.99%
B	83-86.99%
B-	80-82.99%
C+	77-79.99%
C	73-76.99%
C-	70-72.99%
D+	67-69.99%
D	63-66.99%
D-	60-62.99%
F	0-59.99%

Late Work and Make-Up Exams: Late work will not be accepted and no make-up exams will be given. There should be no problems meeting the expectations of the course. All the due dates are given, and I will make sure to give you plenty of notice ahead of time.

Administrative Home: The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.

Electronic Communication: University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2, k.11).

Accommodations for Disabilities: The University of Iowa is committed to providing an educational experience that is accessible to all students. A student may request academic accommodations for a disability (which include but are not limited to mental health, attention, learning, vision, and physical or health-related conditions). A student seeking academic accommodations should first register with Student Disability Services and then meet with the course instructor privately in the instructor's office to make particular arrangements. Rea-

sonable accommodations are established through an interactive process between the student, instructor, and SDS. See http://sds.studentlife.uiowa.edu/ for information.

Academic Honesty: All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies: The final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar's web site and will be shared with instructors and students. It is the student's responsibility to know the date, time, and place of a final exam.

Making a Suggestion or a Complaint: Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. (**Karen Heimer, 335-2488**) Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

Understanding Sexual Harassment: Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather: In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Department of Public Safety website.

Calendar: The calendar below gives the dates of exams and other important deadlines for the course. Readings should be completed **prior** to the start of class. This calendar is subject to change.

	Week 1: The Nature of Statistics
Monday 22 Aug	Statistics Basics
	Chapter 1.1
Wednesday 24 Aug	Simple Random Sampling
	Chapter 1.2
	Week 2: Organizing Data
Monday 29 Aug	Variables, Data, and Distributions
	Chapter 2.1, 2.2, 2.3, 2.4
Wednesday 31 Aug	APSA
	No Class
Friday 2 Sep	**Homework #1 DUE**
	No Class
	Week 3: Descriptive Measures
Monday 5 Sep	Labor Day
	No Readings
Wednesday 7 Sep	Measures of Central Tendency and Dispersion
	Chapter 3.1, 3.2, 3.3, 3.4
	Week 4: STATA Introduction
Monday 12 Sep	Working with Data
	Handout
Wednesday 14 Sep	Describing Data
	Handout
Friday 16 Sep	**Homework #2 DUE**
	No Class
	Week 5: Normal Distribution
Monday 19 Sep	Standard Normal
	Chapter 6.1, 6.2
Wednesday 21 Sep	Normal Variables
	Chapter 6.3, 6.4

	Week 6: Sampling Distribution
Monday 26 Sep	Sampling Error
	Chapter 7.1, 7.2
Wednesday 28 Sep	Sample Mean
	Chapter 7.3
Friday 30 Sep	**Homework #3 DUE**
	No Class
	Week 7: Midterm Exam
Monday 3 Oct	Review
	No Readings
Wednesday 5 Oct	Midterm
	No Readings
	Week 8: Confidence Intervals
Monday 10 Oct	Population Mean
	Chapter 8.1, 8.2
Wednesday 12 Oct	Margin of Error
	Chapter 8.3, 8.4
Friday 14 Oct	**Homework #4 DUE**
	No Class
	Week 9: Hypothesis Tests for One Population Mean
Monday 17 Oct	Nature of Hypothesis Testing
	Chapter 9.1, 9.2
Wednesday 19 Oct	P-Values
	Chapter 9.3, 9.4, 9.5
	Week 10: Inferences for Two Population Means
Monday 24 Oct	Independent Samples
	Chapter 10.1
Wednesday 26 Oct	T-Test
	Chapter 10.2, 10.3
Friday 28 Oct	**Homework #5 DUE**
	No Class

	Week 11: Inferences for Population Proportions
Monday 31 Oct	One Population
	Chapter 12.1, 12.2
Wednesday 2 Nov	Two Populations
	Chapter 12.3
	Week 12: Chi-Square Procedures
Monday 7 Nov	Chi-Square Distribution
	Chapter 13.1, 13.2, 13.3
Wednesday 9 Nov	Chi-Square Test
	Chapter 13.4, 13.5
Friday 11 Nov	**Homework #6 DUE**
	No Class
	Week 13: Bivariate Regression
Monday 14 Nov	Linear Relationships
	Chapter 14.1, 14.2
Wednesday 16 Nov	Correlation Coefficient
	Chapter 14.3, 14.4
	Week 14: Thanksgiving Break
Monday 21 Nov	No Class
	No Readings
Wednesday 23 Nov	No Class
	No Readings
	Week 15: Anova
Monday 28 Nov	One-Way Anova
	Chapter 16.1, 16.2, 16.3
Wednesday 30 Nov	Multiple Comparison
	Chapter 16.4, 16.5
	Week 16: STATA Tutorial
Monday 5 Dec	Data Analysis I
	Handout
Wednesday 7 Dec	Data Analysis II
	Handout
Friday 9 Dec	**Homework #7 DUE**
	No Class