

**Sociology 360: Statistics for Sociologists I**  
**Lecture 2, Fall 09/10**  
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Professor Nora Cate Schaeffer  
schaeffe@ssc.wisc.edu  
262-2182

Office Hours: 4422 Sewell Social Science Building  
or UWSC, 1800 University Ave.  
By appointment

TA: Joao Alexandre Peschanski  
[peschanski@wisc.edu](mailto:peschanski@wisc.edu)

Office hours: 10-12 Friday  
Office 7110 Sewell Social Science Building  
Phone 262-3569

Lectures: 11:00 -12:15 TR 114 Ingraham

Labs:	LAB 321	1:20p-3:15p	F	6125 SOC SCI
	LAB 322	3:30p-5:25p	F	6113 SOC SCI

(Note: Some lab sessions may be held in 3218 Sewell so that computers can be used.)

**Course Description:** This course introduces you to statistics, with a focus on how statistics are used in social research. When you complete this course you should be able to use various tools, including graphs and tables, to describe a single variable and to summarize the distribution of a variable using measures of central tendency and spread. In addition, you should be able to use correlation and regression to describe the relationship between a pair of variables. To teach you the basis for statistical inference, this course introduces experimental design and discusses the concepts underlying probability sampling, what a sampling distribution is, and the role of a sampling distribution in statistical inference. You then apply these concepts by learning how to test hypotheses about means, proportions, regression coefficients, and pairs of means and proportions; you also learn to calculate the confidence intervals associated with these tests. Two class projects give you the opportunity to apply your skills to analyzing data.

**Prerequisites:** Sophomore standing and basic algebra skills.

**Course website:** The course website is available through Learn@UW. If you are enrolled in the course, you can access the site by going to <http://learnuw.wisc.edu> and entering your NetID and password. Once there, click on the link to Soc 360 under “My Madison Courses.”

**Course Materials:**

**Required text:** Moore, Davis S. *The Basic Practice of Statistics, 4th edition*. New York: W.H. Freeman, 2007. (Available at University Bookstore.)

**Optional text:** Fligner, Michael A. and William I. Notz. 2006. *Study Guide for Moore's the Basic Practice of Statistics, Fourth Edition*. New York: W.H. Freeman. The study guide offers a review of each section's concepts and step-by-step solutions to selected problems. (Available at University Bookstore.)

**Computer software (STATA):** We will be using the statistical package STATA for many of the homework problems. The TA will be providing instruction in STATA in lab. Outside of lab, you can access STATA in the Social Science Microcomputer classroom in 3218 Social Science if there is not another class being held there, or in 4218 Social Science, which is the primary lab for student drop-in use. You will also be able to access STATA remotely from home. The TA will cover how to do this in lab. Finally, if you anticipate using STATA regularly and would like to purchase it, it is available for a reduced rate through the University. See <http://www.ssc.wisc.edu/sscc/info/gradplan.htm> for details.

**Web Resources:** Moore's text comes with many useful online supplements that you are encouraged to explore (<http://bcs.whfreeman.com/bps4e>). These include self-quizzes, additional exercises, statistical applets, and data sets. The materials available on the free site are also on the CD that comes with your textbook.

**Calculators and other materials:** You will need a calculator that can do "two-variable statistics" for the homework assignments and exams (e.g., the Texas Instruments TI-36X Solar, which is available at the University Bookstore Digital Outpost). Calculators should be able to compute correlations and simple two-variable regressions. These calculators are relatively inexpensive; the TI-36X is about \$20. You are responsible for learning to use your calculator; the TA will provide only limited support during lab, and lab will focus on the TI36X. Many of the homework problems can also be done efficiently in Excel. To take advantage of Excel you must arrange for access to a computer at home or on campus. You will probably also want to buy some graph paper.

## Lectures:

Lectures focus on basic concepts and their application. You are expected to attend class and to be prepared to participate. Attendance contributes to your grade.

**Materials for lecture:** You will not usually need to bring your textbook to class. Beginning in week 2, you must bring your formula card (from Moore) and calculator. Copies of the lecture presentation for the first lectures will be provided in class. Lectures for subsequent weeks will be available (I will announce in class whether they will be in a coursepack available at the Sewell Building Copy Center on the 6<sup>th</sup> floor or from the course website). You are responsible for material covered in class, regardless of whether or not it appears in the text or on one of the handouts.

**Preparing for Lectures.** To prepare for class, read the chapter, just skimming the problems, before the topic is covered in class. After class, read the chapter again and do the homework problems; do additional problems if you are having trouble. Then read the text of the chapter again to solidify what you learned.

**Labs:** Lab sessions combine instruction with review of homework problems. Some activities, such as teaching STATA, will be done only during lab. Attendance is recorded. Lab will meet the first week of class. After the first week, bring your formula card and calculator. TA office hours are intended to provide assistance in addition to -- **not instead of** -- that given in lab.

**Examinations:** There are three non-cumulative, in-class examinations. Examination questions will include true/false questions, multiple choice questions, and open-ended questions that require discussion, data analysis and calculation, or the selection of appropriate statistical methods. A copy of the quick reference card from the Moore book will be provided for your use on the exams. You may use this reference card and a calculator, but no other materials for the exam. The quick-reference card has copies of almost all of the formulas covered in the course.

**Missed and Make-up Examinations.** If you have a schedule conflict (e.g., religious holiday or athletic event) with an exam you must discuss it in advance by e-mail with the instructor (not the TA). If an illness or other unanticipated emergency prevents you from taking an exam, you must **contact the instructor** as soon as possible. Permission of the instructor is required in order to take a make-up exam or the final comprehensive exam. **Although you may discuss these matters with the TA, only the instructor may authorize special arrangements for an exam.**

Students must take three exams in order to pass the course. For the first two exams, a make-up exam will be offered within a week of the original exam. A special expanded comprehensive final examination will be required for (1) students who miss the third exam at the scheduled time, (2) students who miss an original exam and its make-up, and (3) students who miss more than one original exam, have taken a makeup, and have the permission of the instructor. The expanded comprehensive final examination will be held the day after the regular comprehensive final. There will be no other makeup examination.

In general, the make-up exam will be different from and more difficult than the original exam. Make-up exam scores can lower, but cannot raise, your final grade. In calculating the final grades, make-up exam scores will be included if they lower the final grade, but not if they raise it. This policy has been adopted (1) in response to student concerns that those taking a make-up were at an unfair advantage because of the additional study time; and (2) to reduce the incentive of students taking a make-up to consult with other students in the class about exam content.

**Disagreements about Grading of an Exam.** If you disagree with the way a question has been graded, you must do the following: (1) Make a copy of the exam with your answer and the grade. (2) Attach to it a written explanation of why you feel the grade is inappropriate. If you dispute a substantive point, document your point of view citing the text, reading, or lecture. If you interpreted the question differently from the way it was intended, explain your interpretation and why you believe your answer is correct given that interpretation. (3) Describe in the written statement what you believe would be a fair grade. (4) Give the copy of the exam and the written statement to the instructor no later than 1 week after the TA hands back graded exams.

We will (1) respond to you in writing; (2) change everyone's grade accordingly if there is a general problem; (3) note any change in grade as an "adjustment" (to be taken in to account if you have a border-line grade) if you have individual concerns.

**Homework:** Lab is on Friday, and home work is due at the beginning of class the following Tuesday. Homework received after 11:00 a.m. the day it is due will be considered late. The TA will go over the solutions in the following lab. **All homework must be stapled. No paperclips.**

**Grading of homework:** Homework assignments checked in as “2” if complete, substantially correct, and well-documented, “1” if not complete or substantially correct, and “0” if late. Individual problems will not be marked, but correct answers will be provided and discussed in lab. Problem sets that are exceptionally poor or fail to follow instructions may be rejected by the TA and be recorded as “0.”

**Penalty for late homework assignments:** Homework turned in after the due date but before the lab in which the problems are discussed will receive a maximum score of “1.” Homework will not be accepted after the lab in which it is discussed. If an emergency prevents you from turning in homework on time, you may be able to get a short extension on the homework from the **instructor before** the assignment is due.

**Cooperating on homework assignments:** You are encouraged to discuss the problems on the weekly homework assignments with other students in the class to further your understanding of the material, but you must write your answers up independently. You may not copy another’s work.

**Data Analysis Projects.** There will be two data analysis projects. These projects are meant to put the material presented by Moore into context and to help solidify what you have learned. The first is a short project that focuses on descriptive statistics and graphical display of data. The final project will require you to apply the skills you have learned throughout the course. Details will be provided in class. You may not cooperate with other students on these assignments; treat them like take-home exams.

**Final grades:** You must complete all assignments and take all exams to receive a grade for this course. The course components contribute to your final grade this way:

Exams	60 %	(15%, 22.5%, 22.5%)
Data analysis projects	25%	(10%, 15%)
Weekly homework	10%	
Attendance and participation	5%	

**Administrative matters:**

**Graduate students and honors students:** Send the instructor an email by the end of the first week of class. The projects will be modified for you.

**E-mail list:** The TA or I may occasionally send messages to the class via an e-mail list. You are responsible for getting an account if you do not have one already, and for checking your e-mail daily to make sure you do not miss announcements. The e-mail list is for the use of the Professor and TA only. Do not send e-mails to the e-mail list address.. If you are having trouble with your e-mail address or need to get one, call the DOIT Help desk at 256-HELP.

**Communication:** The best way to reach me is by email. Begin the subject line with "Soc 360."

**Appointments:** All office hours are by appointment. Like many of you, I cannot usually make an appointment to meet within a day or two of any request, so please plan ahead.

**Privacy of Grades.** Use only your ID on all examinations and assignment; no names. To protect your privacy, we cannot give grades over the telephone or by email. If you want an assignment or grade given to someone else, you must give me a letter of authorization.

**Special Needs:** To make special arrangements for testing, assignments, or other aspects of the course you must qualify for disability services through the McBurney Center. Their website has detailed instructions on how to qualify: <http://www.mcburney.wisc.edu/>. Send me email within the first 2 weeks of class if you have authorization for special arrangements.

**Classroom deportment:** Students attending class are expected to be respectful of others. Turn off your cellphone before the lecture or lab begins. Napping and reading a novel or newspaper are commendable activities, but they are not appropriate during class.

**Academic Honesty:** As with all courses at the University of Wisconsin, you are expected to follow the University's rules and regulations pertaining to academic honesty and integrity. Students are expected to know and follow the standards outlined by the Offices of the Dean of Students. See their website (<http://www.wisc.edu/students/conduct/uws14.htm>) for a complete description of behaviors that violate the University's standards as well the disciplinary penalties and procedures. If you have questions about the rules for any of the assignments or exams, please ask your TA.

**Departmental Notice:** The Department of Sociology regularly conducts student evaluations of all professors and teaching assistants near the end of the semester. Students who have more immediate concerns about this course should report them to me or to Professor Maynard, Chair, 8128 Social Science ([maynard@ssc.wisc.edu](mailto:maynard@ssc.wisc.edu)).

**Feedback:** I am interested in hearing your reactions to the course, and your suggestions for improvement. At one point during the semester we will have an informal evaluation at which time you are able to write comments or make suggestions anonymously. In addition, please feel free to e-mail comments or suggestions to [schaeffe@ssc.wisc.edu](mailto:schaeffe@ssc.wisc.edu) or make an appointment to see me.