

**S110: Charts, Graphs and Tables**  
**Section 9728**  
**First Four Weeks-Summer 2013**

Instructor: Kevin Doran  
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Time: Monday-Friday, 12:40-2:50  
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**Course Description**

We live in a world where technology is making it increasingly easy to collect and analyze social data. One result of this technology is that politicians, public relations representatives, members of the media, and even our friends on Facebook are constantly presenting us with statistics in an effort to make their argument more persuasive. As such, it is important that we all be competent consumers of general social scientific statistical results. This course will provide you with the skills to produce, interpret, and present social statistics. In doing so, it will also teach you to distinguish between reliable, valid results and junk science presented in the charts, graphs and tables that we encounter in our daily lives.

The first half of this course introduces some of the most common statistical techniques used to analyze social data. The second half of the course requires you to examine how social scientists use these techniques to study sociological concepts like inequality and social order. You will be introduced to the production and analysis of social science data through a survey research project, where you will work in groups to organize, analyze, and interpret original survey data. You will leave the course with a behind-the-scenes understanding of how social scientific data and knowledge are produced.

**Learning Objectives**

This course fulfills the College of Arts and Sciences' Common Ground requirement for natural and mathematical sciences. Accordingly, students who complete this course will: (1) Become familiar with scientific inquiry as it is used to investigate the social world; (2) Acquire tools to model and understand the social world; (3) Acquire skills in the collection and interpretation of data, critical thinking, and theoretically based inquiry; (4) Learn to solve practical problems; (5) Acquire analytical and quantitative skills that will help students become informed, active participants in society.

**Class Structure**

This class will rely in large part on discussion and collective work. There will be a lecture portion, however, the success of the class depends on your engagement with the class readings and participation in discussion. This means that you *must* carefully read the assigned readings before class *and* come to class ready to talk –either about things you did not understand, ideas with which you either agreed or disagreed, and/or points where the readings relate to your/our

daily lives. As long as you read the texts carefully and actively, you will be prepared for the discussions in class.

### **Required Material**

No Required Text

You must have a scientific calculator (it does not need to be capable of graphing)

While there is no required textbook for the class, there will be readings assigned for almost every class. The readings will be posted on Oncourse under the “Resources” tab. You are responsible for reading all assigned materials by the start of the class under which they are listed.

### **Requirements**

*Attendance:* Students are expected to attend every class and to show up on time and prepared. We are in a condensed term over the summer, so each lecture will contain a lot more content than would the average lecture. Missing one class period this session is the equivalent of missing 2 days of material in the fall or spring semesters. As such, it is essential that you attend all lectures in order to comprehend the material and perform well in the class. You will be permitted to miss two classes for any reason without a penalty.

University sanctioned absences (like observation of a religious holiday) will not be counted against your four permitted absences. However, **you must notify me before class**. If you do miss a class, it is your responsibility to get the notes from another student, and you are still responsible for all announcements made in that class (for example, a change to the class schedule).

*Participation:* Regular and valuable participation is mandatory for all students in this class. This class is discussion oriented (especially in the second half of the course), so it is important that you come to class having completed the readings and ready to talk. Class participation is worth **60 points (6% of your final grade)**. So long as you are a regular participant in discussion, arrive to class on time, and do not engage in disruptive behavior, you will receive full participation credit.

The readings and class discussions will touch on topics that are potentially sensitive. We need to treat the classroom as a space for academic debate and discussion. This means that you may disagree with something that is said by someone else, but you be respectful of your classmates when we engage in discussion.

*Problem sets:* During the first two weeks of the class, I will provide you with a set of practice problems at the end of each class in which we cover statistical material. These problem sets will not be graded, but will provide you with additional opportunities to practice the skills you learn in class. These will serve as a good barometer as to how well you understand the statistical

material. If you get hung up on one of the problems in the problem sets, you should see me to discuss why the problem is giving you trouble.

*Exams:* There will be two exams (**Friday, May 17<sup>th</sup> and Thursday, May 30<sup>th</sup>**). You must take all exams on the scheduled date. Makeup exams will not be given except under extraordinary, and documented, circumstances. **If something does occur that makes taking the exam at the scheduled time impossible, you need to notify me in advance via email.** Test items on makeups will reflect the fact that students had more time to prepare.

These exams will be worth **220 points (22% of your final grade)** each. The exams may consist of multiple-choice, short answer, essay, and/or mathematical/statistical questions. To do well on these exams, you will need to engage with the readings for each class, attend every class, participate in class discussion and group exercises, complete the problem sets, and come to office hours to clear up confusion (and, obviously, study).

*In-class assignments:* There will be seven unannounced in-class assignments. Your two lowest scores will not count toward your final grade. These assignments are designed to ensure that you are keeping up with your readings and are completing the problem sets. Each in-class assignment will be worth **30 points (3% of your final grade)**. Combined, your five best assignments will be worth **150 points (15% of your final grade)**.

*Article critique:* You will be required to locate and critically evaluate a news article that is relevant to the topics discussed in class. This article can come from a magazine, newspaper, or *credible* online news source. It can relate to any topic of your choosing, but must include at least one chart, graph or table. Along with your article, you must turn in a one-page report that briefly summarizes the article, describes the data represented in the tables and graphs, and discusses the strengths and weaknesses of your article's presentation and interpretation of data. Grades will be based primarily on students' ability to link class concepts to news articles. Advertisements, opinion articles, and data highlights with no news story do not count as articles. No academic articles or course readings are allowed. This assignment is designed to help students become more critical consumers of the statistics they encounter in the popular media. Your article critique is worth **100 points (10% of your final grade)**.

*Group Project:* You will complete a research project which will require you to combine what you've learned about data analysis, interpretation and presentation. Each group will be required to submit a project proposal, give a presentation of your project findings, and turn in a final project paper. The final project will be worth a total of **250 points (23% of your final grade)**. The project proposal is worth **10 points (1% of final grade)**, the presentation is worth **100 points (10% of final grade)**, the final paper is worth **120 points (12% of final grade)**, and peer evaluations from your group are worth **20 points (2% of final grade)**. Note that your grade will be based in part on your group's anonymous review of your individual contribution to the project.

## Grading

*Your grade will be based upon the above requirements in the following manner:*

Exam 1	22%	(220 points)
Exam 2	22%	(220 points)
Group Project	25%	(250 Points)
Article Critique	10%	(100 points)
In-Class Assignments	15%	(150 points)
Participation	06%	(60 points)
<b>Total</b>	<b>100%</b>	<b>(1000 points)</b>

*The grading scale for your final grade is as follows:*

A+	97-100%	(970-1000 points)	C	73-76.9%	(730-769 points)
A	93-96.9%	(930-969 points)	C-	70-72.9%	(700-729 points)
A-	90-92.9%	(900-929 points)	D+	67-69.9%	(670-699 points)
B+	87-89.9%	(870-899 points)	D	63-66.9%	(630-669 points)
B	83-86.9%	(830-869 points)	D-	60-62.9%	(600-629 points)
B-	80-82.9%	(800-839 points)	F	0-59.9%	(0-599 points)
C+	77-79.9%	(770-799 points)			

## Additional Policies

*Makeup Policy:* As noted above, in almost all instances, **there will be no makeup exams.**

Make up exams will only be granted under extraordinary circumstances. If you **absolutely have to** miss an exam, **you need to notify me at least one week in advance** via email, and to provide proper documentation. If an emergency occurs on the day of an exam, you must email me before the exam and provide me with documentation immediately. (In accordance with University policy, religious holiday accommodation forms must be turned in during the first week of class.) Questions on any makeup exams will reflect the fact that students had additional time to prepare.

*Special Accommodations:* In compliance with the Americans with Disabilities Act (ADA), IU seeks to provide "reasonable accommodation" for qualified individuals with documented disabilities. It is the student's responsibility to inform the instructor and to contact the Disability Student Service Office (855-7578; <http://www.dsa.indiana.edu/dss.html>) about any special

learning/study needs relating to a documented disability within the first two weeks of the semester.

*Academic Integrity:* I take academic misconduct seriously and will not tolerate it in this class. This includes cheating, plagiarism, etc. If misconduct is discovered, I will take the appropriate action according to University policy. Please see the *Code of Student Rights, Responsibilities, and Conduct* (<http://www.iu.edu/~code/code/responsibilities/index.shtml>) if you have any questions as to what constitutes academic misconduct.

*Incompletes:* In accordance with University policy, I will not grant incompletes for this course except under highly extraordinary and documented circumstances.

*Classroom Conduct:* Class participation is integral to your understanding of the material and to your performance in this class. You are expected to come into class having read the assigned reading, prepared to engage in class discussion and to ask any clarifying questions that you may have had about that day's reading. Additionally, you are expected to be attentive during class. That means that you are not permitted to have cell phones, iPods, newspapers, etc. out during class time. Cell phones should be turned off before entering class (if you have circumstances that require that you keep your cell phone on, please notify me before class and turn your ringer to vibrate). You are not permitted to use laptops during the class period. They serve as a distraction not only to you, but to the other students in the class. Students with a documented disability requiring the use of laptops should talk to me immediately and provide me with the documentation.

This course will discuss topics that are potentially controversial. I expect you to respect the opinions and comments of others in the class, even if you do not agree with them. This does not mean that you cannot voice an opinion that differs, but requires that you do so in a civil manner.

If you do not abide by these rules, you will not receive credit for having attended class on that day and may be asked to leave.

*Communication:* The best way to contact me is through email (please include S110 in the subject line). I will check my email at least twice per day (once in the morning and once in the evening) and will respond to most emails within 24 hours. I will use email as the primary means of communication with you outside of the class room, and will do so with the assumption that you will check your email at least once per day. Please do not attempt to contact me via the Oncourse messaging system. These messages frequently fail to be forwarded to my email account.



**Wednesday, May 15 – Confidence Intervals; Univariate and Multivariate Displays**

Readings:

Huff	"The Gee-Whiz Graph"
Tufte	"Graphical Integrity"

**Thursday, May 16 – Univariate and Multivariate Displays**

Readings:

No Readings

**Friday, May 17 – Exam 1**

No Readings

**WEEK 3:**

**Monday May 20 – Excel Workshop (location TBA)**

No Readings

\*Final Paper Proposal Due (1 per group)

**Tuesday, May 21 – Social Order**

Readings:

Carter	"The Problem of Social Order"
Durkheim	"Social Order and Control via Close Social Ties: The Example of Suicide"
Putnam	"Diversity Fosters Social Isolation"

**Wednesday, May 22 – Gender**

Carter	"Gender"
Gerson and Jacobs	"The Work-Home Crunch"
Pelak	"The Relationship between Sexist Naming Practices and Athletic Opportunities"

**Thursday, May 23 – Race**

Carter	"Race and Ethnicity"
Western and Pettit	"Beyond Crime and Punishment: Prisons and Inequality"
Pager	"The Mark of Criminal Record"
Clark and Clark	"Racial Identification and Preferences in Negro Children"

**Friday, May 24 – Social Class and Social Mobility**

Carter	"Inequality"
Davis	"Up and Down Opportunity"
Epsing-Anderson	"Equal Opportunities and the Welfare State"
Rose and Marmot	"Social Class and Coronary Heart Disease"

\*Article critique due (1 per student)

**WEEK 4:**

**Monday, May 27 – No Class (Memorial Day)**

No Readings

**Tuesday, May 28 – Topic to be decided**

**Wednesday, May 29 – Group Work**

No Readings

**Thursday, May 30 – Exam 2**

No Readings

**Friday, May 31 – Group Presentations**

\*Final paper due (1 per group)