SOCIAL STATISTICS  
Fall 2016  
SYA 4400  

Section 1  Tues/Thurs 3:35-4:50pm, BEL023  
Section 2  Tues/Thurs 2:00-3:15pm, HCB214  

Instructor  
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*When sending email, be sure to specify which session you are in.

COURSE DESCRIPTION  
This course introduces you to the basics of social statistics—a set of techniques that sociologists and other social scientists use to summarize numeric data obtained from censuses, surveys, and experiments. The course will cover topics such as frequency distribution, central tendency, variability, probability theory, and estimation. You will also learn how to test hypotheses for group differences in means (z test, t test) and for association between two variables (correlation, chi-square test).

COURSE OBJECTIVES  
Upon successful completion of this course, you will be able to perform the following tasks:

1. Explain basic concepts of social statistics.
2. Summarize numeric data by computing descriptive statistics (e.g., mean, variance) and by creating tables and graphs. For each procedure, you will learn a hand calculation method (using a calculator) and a computer method (using software called SPSS).
3. Compute various inferential statistics (e.g., t-score) using both hand calculation and computer methods.
4. Test hypotheses using the probability theory.
5. Explain the differences among various statistical techniques and identify an appropriate technique for a given data set and research questions.

These skills will be useful for your careers in two ways. First, statistics is the primary analytical method in sociology (and many other social sciences). For those who pursue academic careers, developing strong statistical skills will likely enhance your performance in graduate programs as well as your research potential as sociologists. Second, statistics also has a practical value for people who pursue non-academic careers because some jobs require experiences in data management and analysis (e.g., federal and state government jobs, marketing positions). Therefore, mastering the materials in this course may help you improve your status as a job candidate.

PREREQUISITES  
There are no formal prerequisites for this course. However, you do need basic math skills, including addition, subtraction, multiplication, and division. Our textbook includes a basic math review (Appendix A). After the first class session, you can work on some problems in this section to see whether you have sufficient background for the course or just to refresh your skills.
REQUIRED COURSE MATERIALS
Text:
Frederick J. Gravetter and Larry B. Wallnau. *Essentials of Statistics for the Behavioral Sciences, 8th Edition*. Wadsworth. ISBN: 1133956572. Available at FSU Book Store and Bill’s Book Store. Ebook and rental versions are also available at Amazon.com and the textbook web site (cengage.com). It does not matter where you buy your textbook and which format you choose, but having textbook access is essential for passing this course.

Calculator:
Please bring your calculator to every class session. A simple calculator would be sufficient, and memory and statistical functions are not necessary. Cell phones and smart phones cannot be used as calculators. This is particularly important for exams.

Computer Access:
You will learn how to use a computer program, called SPSS. SPSS is available at FSU computer labs. If you are not familiar with the lab hours and policies, please read the following web page: [http://its.fsu.edu/Computing/Computer-Labs](http://its.fsu.edu/Computing/Computer-Labs). We use SPSS only a few times, so you do not need to purchase the software.

COURSE REQUIREMENTS
Syllabus Agreement
By September 8, please log onto Blackboard, download the syllabus, read it carefully, ask any questions, and confirm your agreement by filling out an online form. In Blackboard, click Syllabus  Agreement/Survey. *Without your agreement, your assignments and exams will not be graded. If you cannot agree to the syllabus, contact me immediately.*

Student Survey
When you confirm your agreement to syllabus on Blackboard, you will be asked to participate in Student Survey as an anonymous respondent. The survey data will be used for our course exercises.

Attendance
Class attendance is required for two reasons. First, statistics requires you to gradually but constantly build your knowledge and skills. It is very difficult to catch up once you get behind. Second, you are expected to contribute to the class by asking questions, participating in class discussions, and working with classmates for in-class exercises. Your attendance is essential for making these contributions.

**Attendance grade.** See the “Grading” section below.

**Excuses.** The following and only the following absences are eligible to be excused: Religious holidays, as specified in FSU policy; absences due to representing FSU at official functions, including intercollegiate debating or varsity sports events; verified emergencies and/or medical illness. Medical illness refers to conditions that are serious in nature and require treatment by medical professionals and/or surgical or other treatments.

**Documentation is required** for an absence to be excused. A photo copy is acceptable. Please write down the dates of the class sessions you missed. Email correspondence and phone conversations will not substitute for paper documentations. All documentations need to be submitted before the final exam.
**Sign-Up Sheet.** Starting from the second week of semester, I will circulate a sign-up sheet at the beginning of each class session. The person sitting in the last row is responsible to immediately return the sheet to me after signing.

**Coming In Late and Leaving Early.** If you come in late, see me after the class session, so you can sign on the attendance sheet. If you know in advance that you will need to leave early, come talk to me before the class session. In the attendance sheet, circle your signature to indicate your partial attendance (coming late or leaving early), which will count as half attendance for grading purpose. If you fail to abide by these rules, you will be recorded as absent for the class session.

**Reading Assignments**
Read the assigned chapters before you come to each class session (see the class schedule in the end of this syllabus). In addition to highlighting the text and taking notes, I suggest you write down your questions, so you can ask them in class.

Don’t worry if you find some chapters difficult to follow, but it is important to finish reading the assigned chapter before each session to get a general idea about the chapter and go back to it after class to make sure that you understand the materials better. I emphasize that you should keep up with the reading assignments on a weekly basis. Cramming multiple chapters just before exams would most likely result in poor grades in this course.

**Problem-Solving Assignments**
The course includes two problem-solving assignments. The first assignment is required, and the second one is optional. For each assignment, you will conduct statistical analysis in computer software called SPSS, print out the output, and write brief interpretations. More information will be given in each assignment.

You will have at least a week to complete each assignment. If you start working on your assignments early, you will have a chance to ask questions in the next class session before submitting your assignments.

**Collaboration Policy:** Please help each other, by all means, to exchange notes for missed class sessions, study for exams, etc. The assignments that you turn in should be your own work, however. Any form of violation will result in a "zero" for that particular assignment or an "F" for the course, at my discretion. See more information in the Honor Code section.

**Late Assignment Policy:** Each assignment is due in class when the class session begins. Any assignment turned in more than 10 minutes after the hard-copy deadline will be considered late. *For the first (required) assignment:* A late assignment will receive a 10% reduction in assignment grade. An additional 10% reduction is given for every 24 hours of late submission. Late assignment should be submitted to my mailbox in Sociology Department Office (Bellamy 526), instead of my office. *For the second (optional) assignment:* No late assignment is accepted.

**Tests**
You will take three tests, including a final. Each test will consist of multiple choices, short-answer questions, and problem-solving questions (using a calculator). For questions that require complex formulas (materials for the second and third exams), I will provide a formula sheet, so you do not have to memorize them. Each test is intended to evaluate your understanding and skills for each segment of the course, and in this sense, tests are not cumulative. Throughout the course, however, you will learn new materials by building on what you have learned previously. Only in this sense, tests may have some cumulative elements.

**Pop Quizzes and Review Questions**
To check your understanding of reading assignments and lectures, I will give pop quizzes and review questions in class. Quiz scores will count as extra credits.
Other Extra Point Assignments
In addition to the second problem-solving assignment and pop quizzes, some extra credit assignments may be given in the course. You will have to be in class to know these opportunities.

In-Class Exercises
In many class sessions, you will solve practice problems. I may occasionally ask you to submit your exercises.

Exercise Questions in Each Chapter (optional)
The textbook provides some exercise questions at the end of each chapter. After we go over each chapter in class, I will pick a few questions for your practice at home. These questions usually do not require much time, but they are very useful for checking your understanding. Because the textbook provides answers to these questions, I will not collect your work. If you are having a hard time solving these problems, you may ask questions in class, however.

GRADING
- **Attendance.** (20 of 365 final points.) You will receive 20 points if you have 0 to 2 absences during the semester, 18 points if you have 2.5 absences, 16 points if you have 3 absences, 14 points if you have 3.5 absences, and so on. Coming in late and leaving early count as .5 absence.
- **Tests (3),** 70 points for the first exam, 100 points for the second exam, and 100 points for the third exam. (270 of 365 final points.)
- **First Problem-Solving Assignment,** 75 points each. (75 of 365 final points.)
- **Second Problem-Solving Assignment,** up to 10 points. (Extra points added to 365 final points.)
- **Pop Quizzes and Review Questions,** 2 points each. (Extra points added to the 365 final points.) In each quiz, you will receive 2 points for a correct answer, 1 point for a wrong answer, and 0 point for no participation.
- **Other Extra Point Assignments.** (Added to 365 final points.)

To convert your final score to a letter grade, I will first divide your final score by 365, multiply it by 100 to get a percentage, and then use the following rule:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>89-93</td>
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<tr>
<td>86-83</td>
<td>A-</td>
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<tr>
<td>79-77</td>
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<td>76-73</td>
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<td>69-67</td>
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<td>66-63</td>
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<tr>
<td>62-60</td>
<td>D-</td>
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<tr>
<td>59-0</td>
<td>F</td>
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</tbody>
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Incomplete Grades
Missing work or uncompleted assignments are insufficient reasons for an Incomplete grade. An Incomplete grade will not be given except extenuating circumstances at my discretion. Note that College of Social Science and Public Policy guidelines require that students seeking an “I” must be passing the course.

COURSE WEB SITE
When you register for this course, you automatically gain access to the course web site (Blackboard). To visit the site, open your web browser and go to <https://campus.fsu.edu>. After you log on, click the course number. If you are not familiar with Blackboard or have technical problems or questions regarding Blackboard, check out online support by logging into Blackboard and clicking “Support” tab on the top of the web site.

Sending email: Please remember to include your full name and indicate which section you are in. This is very important because I teach multiple sections of this course.

Lecture outlines: Power Point slides are posted for each class session. Please note that I may make minor changes and corrections in slides before class sessions.
TEXTBOOK WEB SITE
Go to <http://www.cengage.com/us/>, enter the textbook title in the “search” field, click our textbook by Gravetter and Wallnau, and click “free materials.” This web site provides excellent resources that can help you improve your skills and prepare for exams (Flashcards, Glossary, etc). The use of this site is optional.

CLASSROOM POLICY
Academic Honor Policy
Students are expected to abide by the Academic Honor Policy of the Florida State University, including the statement on Values and Moral Standards published in The Florida State University General Bulletin. The Academic Honor Policy outlines the University’s expectations for students’ academic work, the procedures for resolving alleged violations of these expectations, and the rights and responsibilities of students and faculty throughout the process. Please see the following website for a complete explanation of the Academic Honor Policy: http://fda.fsu.edu/Academics/Academic-Honor-Policy/.

Classroom Courtesy
Classroom courtesy is necessary to ensure that all students have the opportunity to learn without distractions. This means no talking during lectures (unless recognized by the instructor), reading newspapers, etc. during class.

Cell Phone Use
You are not allowed to make or answer phone calls or check/send/receive text messages during class sessions. Please keep your cell phone in your pocket or bag. If you must receive emergency calls, please keep it on the vibrate mode. This policy also applies to handheld devices such as smart phones.

Laptop and Tablet Computer Use
Use of laptop or tablet computers is permitted but limited to the purpose of note-taking. Students who use their computers in any other ways may be asked to leave the classroom.

Class Discussions
Class discussions can stimulate strong feelings and heated debate. Because this is a college classroom, all discussions must be scholarly. Failure to abide by these principles can result in academic penalties ranging from a lowered grade, to dismissal, to failing the course.

Scholarly comments are:
Respectful of diverse opinions and open to follow-up questions and/or disagreement; related to course materials; motivated to advance the discussion about issues related to course materials rather than personal beliefs; delivered in normal tones and a non-aggressive manner.

Unacceptable behaviors are:
(a) Personal attacks. This includes attacks on a person’s appearance, demeanor, or political beliefs. (b) Interrupting the instructor or classmates. Raise your hand and wait to be called on by the instructor to prevent this problem. (c) Using the discussion to argue for political positions and/or beliefs. If political discussions arise, they must be discussed as scholarly endeavors (see above). (d) Using raised tones, yelling, engaging in arguments with other students, and being physically aggressive. (e) Ignoring the instructor’s authority to protect the integrity of the classroom. Anyone who violates these guidelines will be asked to stop and may be asked to leave the classroom and/or drop the course.

AMERICANS WITH DISABILITIES ACT
Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the Student Disability Resource Center; and
(2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.
This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the Student Disability Resource Center, 874 Traditions Way, 108 Student Services Building, Florida State University, Tallahassee, FL 32306-4167. (850) 644-9566 (voice). (850) 644-8504 (TDD). sdrc@admin.fsu.edu. http://www.disabilitycenter.fsu.edu/.

SYLLABUS CHANGE POLICY
This syllabus is a guide for the course and is subject to change with advanced notice.

COURSE CONTENT AND SCHEDULE

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Topic</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>August 30</td>
<td>1</td>
<td>Introduction to Stats</td>
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<tr>
<td>September 01</td>
<td>(cancelled due to weather)</td>
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<tr>
<td>September 06</td>
<td>(cancelled due to weather)</td>
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<tr>
<td>September 08</td>
<td>2</td>
<td>Frequency Distributions</td>
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<td>September 13</td>
<td>3</td>
<td>Central Tendency</td>
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<td>September 15</td>
<td>4</td>
<td>Variability</td>
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<td>September 20</td>
<td>5</td>
<td>Z-scores; SPSS</td>
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<tr>
<td>September 22</td>
<td>6</td>
<td>Probability</td>
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<td>September 27</td>
<td>7</td>
<td>Probability and Samples</td>
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<td>September 29</td>
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<tr>
<td>October 04</td>
<td></td>
<td>Exam 1</td>
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<tr>
<td>October 06</td>
<td>8</td>
<td>Intro to Hypothesis Test</td>
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<td>October 11</td>
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<tr>
<td>October 13</td>
<td>9</td>
<td>Intro to t Statistics</td>
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<td>October 18</td>
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<tr>
<td>October 20</td>
<td>10</td>
<td>t Test for Indep. Samples</td>
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<tr>
<td>October 25</td>
<td></td>
<td>A2 (optional) posted</td>
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<tr>
<td>October 27</td>
<td>pp.264-267 pp.294-295</td>
<td>Estimation</td>
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<td>November 01</td>
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<td>A2 (optional) due</td>
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<td>November 03</td>
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<td>Catch-Up</td>
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<tr>
<td>November 08</td>
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<td>Exam 2</td>
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<td>November 10</td>
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<td>Stats in Public Media</td>
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<tr>
<td>November 15</td>
<td>14</td>
<td>Correlation and Regression</td>
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<td>TBA</td>
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<td>November 22</td>
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<td>November 24</td>
<td>15</td>
<td>Chi-Square</td>
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<td>No Reading</td>
<td>Correlation and Chi-Square in SPSS</td>
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<tr>
<td>December 01</td>
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<td>TBA</td>
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<tr>
<td>December 06</td>
<td></td>
<td>Catch Up</td>
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<tr>
<td>December 08</td>
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Final Exam Schedule:
Section 1: Dec 15, Thursday 8:00 - 9:15 a.m.
Section 2: Dec 13, Tuesday 5:30 - 6:45 p.m.
Note that the final exam needs to be completed in 75 minutes just like Exams 1 and 2.