Contact Information

Instructor: Megan Thiele
Office Location: DMH 224
Telephone: Please email me
Email: megan.thiele@sjsu.edu
Office Hours: Mondays and Wednesdays 12-12:50 and by appt.

Class Days/Time:
Section 1: M/W 3:00-4:15
Section 2: M/W 4:30-5:45

Classroom:
Section 1: HGH 122
Section 2: HGH 122

Course Description: This course will introduce you to the logic and use of statistical techniques in social science research and give you a foundation for conducting this research yourself. We will begin by learning how to describe the characteristics of groups through the use of descriptive statistics. We'll then focus on techniques for comparing groups, using inferential statistics. Topics to be covered include: Introduction to statistical applications, particularly statistical inference including central tendency, variation, the normal distributions, probability, estimation, hypothesis testing, measures of association, correlation, linear regression, and analysis of variance. This course is three units.

Required Texts/Materials

Textbook

Other equipment
You will need a calculator that has the square root function and that does not store data (For example, the Casio Fx-260). You will also need a stapler for this class. Cell phones or other texting devices may not be used on exams.
Prerequisites: Satisfaction of the ELM requirement. Since Soci. 15 meets the mathematical concepts G.E. requirement (Area B4), you must have passed the E.L.M. placement test -- or have been exempted from it -- before enrolling in the course. Instructor cannot waive this requirement. Failure to meet this prerequisite will result in University canceling your enrollment in the course and denying credit regardless of any grade earned.

GE Category: Core G.E. Area B4 Mathematical Concepts. Please note that only a C or better in the course satisfies the G.E. requirement. Semester grades of C- to D- are passing and earn three units credit, but they do not satisfy the Area B4 Mathematical Concepts requirement.

Course Goals and Learning Objectives
The student learning and content goals for Area B4 courses include the following (1-6):

1. Using mathematical methods to solve quantitative problems. Throughout the course, we will use basic mathematical operations and a calculator to solve statistical problems. We will use many statistical formulas and you should be familiar with basic algebraic operations. Test items will typically be multiple choice, short answer, and essay, including word problems. Make sure you know how to use your calculator!

2. Using mathematics to solve real life problems. Practice problems and tests questions will be, in most cases, derived from everyday life. Also, some data will be made up but designed to reflect true-to-life situations and contemporary events.

3. Arriving at conclusions based upon the numerical and graphical data. This includes a familiarity with the organization and representation of quantitative data in various forms: tables, graphs, rates, percentages, and measures of central tendency and spread.

4. Applying mathematical concepts in one or more areas. After covering introductory concepts and procedures, the course will focus on probability and statistical inference. These concepts and methods are central to statistical analysis. By applying statistical inference, students will see how analytical techniques underscore many of the claims that they learn in Sociology courses. For example, when sociologists teach that the poor spend a larger percentage of their income on life's necessities, they do so with confidence because other sociologists performed solid statistical analyses that support this claim.

5. Incorporating issues of diversity. Expect classroom examples and test items to frequently deal with issues of diversity. Expect examples that incorporate variations or diversities of race, ethnicity, national origin, religion, sex, physical abilities, age, marital status, citizenship, economic levels, and/or sexual orientation.

6. Writing requirements (minimum 500 words): In clear and concise language, you'll be interpreting what your results both in assignments and when responding to short answer/and or essay questions on your exams. Your writing skills are important. The thoroughness of your explanations, your coherence and your conciseness will be considered in evaluating this part of your work.
Classroom Protocol:

- Do the required reading *before class and as needed*. I recommend reading the chapters at least twice.
- You must follow the student code of conduct.
- You must do your own work on the assignments and exams.
- Active participation in classroom activities is expected.
- Please do not make a habit of: arriving to class late, talking, text messaging or emailing during class and/or otherwise making it known that you are not engaged.
- You may use your computer to take notes. However, this privilege will be revoked if I discover students are using their computers for non-course related tasks, i.e. surfing the internet.
- Attendance is mandatory. Please let me know as soon as possible, preferably before class, if you will be unable to attend, particularly if your absence is excused. Excused absences are allowed only with official documentation (doctor’s note, police report, funeral notice, etc.) provided immediately upon your return. Absence is not an acceptable excuse for ignorance of the course content, assignments, or exam dates. Emails with the following question (or anything close to it) will be frowned upon: “Did I miss anything important?”
- Email Correspondence: **Please provide your name, course name and course time in each email.** Emails without this information may not be responded to. I WILL NOT send you any information about your grade or performance in this class through email—I am happy to provide this information during office hours. I am often prompt in email response, but I have a 24-hour email response policy, effective 9-5 p.m., Monday through Thursday and if you email me Thursday night at 4 p.m. you may not get a response until Monday at 4 p.m.
- There will be 5 homework assignments throughout the semester. Please do not disrespect me—nor yourself—by turning in assignments late—they may not be accepted. **Notice the last three assignments are all due within a relative short time period. Plan accordingly.**
- There will be pop-quizzes throughout the semester.
- There will be three exams: two mid-terms and a final.
- You do not need to memorize all formula, but you'll have to know how to use them. During tests, you may freely consult all relevant statistical tables, which will be provided.
- **If you want to do well in this course, you must put in the work. There will be no last minute extra credit.**

Recording of Class and Public Sharing of Instructor Material

- Recording of lectures beyond writing is not permissible for this course.
- Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor-generated material for this course such as exam questions, lecture notes, or assignments without instructor consent.
Assignments and Grading Policy

A total of 350 points is possible for this course:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop Quizzes (# TBD)</td>
<td>30 pts. total</td>
</tr>
<tr>
<td>5 HWs</td>
<td>120 pts. total</td>
</tr>
<tr>
<td>Exam #1</td>
<td>60 pts.</td>
</tr>
<tr>
<td>Exam #2</td>
<td>60 pts.</td>
</tr>
<tr>
<td>Final exam</td>
<td>80 pts.</td>
</tr>
<tr>
<td>TOTAL</td>
<td>350 pts.</td>
</tr>
</tbody>
</table>

Grades will be calculated as follows:

- 315 - 350 = A (+ or -)
- 280 - 314 = B (+ or -)
- 245 - 279 = C (+ or -)
- 209 - 244 = D (+ or -)
- 000 - 208 = F

This course must be passed with a C or better as a CSU graduation requirement. In order to qualify for an Incomplete, a student must have finished at least 70 percent of the semester's work with a passing grade. Incompletes will only be allowed in exceptional cases and are not given automatically. It is the student's responsibility to request an Incomplete and to make sure the necessary paperwork is filed with the department office before final exam week. By university policy, Incompletes not cleared within one year may revert to Fs. Enrolled students will earn a final grade based on work completed, if the points add up to less than 209, the student will receive an F. Note: It is the student’s responsibility to drop a class they no longer wish to attend.

University Policies

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes. Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy S07-2 at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of
Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at http://www.sjsu.edu/aec to establish a record of their disability. If you think you might or know you will require alternative testing arrangements, you must register with the AEC at the beginning of the semester.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

SJSU Peer Connections

Peer Connections, a campus-wide resource for mentoring and tutoring, offers small group, individual, and drop-in tutoring for a number of undergraduate courses. Consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics. Peer Connections is located in three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit Peer Connections website at http://peerconnections.sjsu.edu for more information.
# SOCI 15. Statistical Applications in the Social Sciences
## Fall 2014

Below is the course outline. This schedule is subject to change with fair notice. Reading should be completed by the class lecture date.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date(s)</th>
<th>Reading</th>
<th>Topics</th>
<th>Reminders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 25</td>
<td>None</td>
<td>Introduction to the Course</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Aug 27</td>
<td>Chapter 1</td>
<td>The What and Why of Statistics</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sept 1*, 3</td>
<td>Chapter 2</td>
<td>Organization of Information: Frequency Distributions</td>
<td>*Sept 1: Labor Day Campus Closed&lt;br&gt;Sept 5: Last Day to Drop Courses Without an Entry on Student's Permanent Record (D)</td>
</tr>
<tr>
<td>3</td>
<td>Sept 8</td>
<td>Chapter 3</td>
<td>Graphic Presentation</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sept 10</td>
<td>Chapter 4</td>
<td>Measures of Central Tendency</td>
<td>Sept 12: Last Day to Add Courses &amp; Register Late (A)</td>
</tr>
<tr>
<td>4</td>
<td>Sept 15,17*</td>
<td>Chapter 5*</td>
<td>Measures of Variability</td>
<td><em>HW 1 Due Sept 17&lt;br&gt;Chapter 5</em> (pages 132-134; 139-156 only red book) We are not covering IQV.</td>
</tr>
<tr>
<td>5</td>
<td>Sept 22*</td>
<td>Exam</td>
<td>Exam 1 Sept 22</td>
<td></td>
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<tr>
<td>5</td>
<td>Sept 24</td>
<td>Chapter 6</td>
<td>The Normal Distribution</td>
<td></td>
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<tr>
<td>6</td>
<td>Sept 29, Oct 1*</td>
<td>Chapter 6</td>
<td>The Normal Distribution</td>
<td>*Oct 1: TBD</td>
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<tr>
<td>7</td>
<td>Oct 6, 8</td>
<td>Chapter 7</td>
<td>Sampling and Sampling Distributions</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Oct 13, 15*</td>
<td>Chapter 8</td>
<td>Estimation</td>
<td>*HW 2 Due Oct 15</td>
</tr>
<tr>
<td>9</td>
<td>Oct 20, 22</td>
<td>Chapter 9</td>
<td>Testing Hypotheses</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Oct 27, 29</td>
<td>Chapter 9</td>
<td>Testing Hypotheses</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Date(s)</td>
<td>Reading</td>
<td>Topics</td>
<td>Reminders</td>
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<tr>
<td>11</td>
<td>Nov 3, 5</td>
<td>Chapter 10</td>
<td>Relationships Between Two Variables: Cross Tabs</td>
<td></td>
</tr>
</tbody>
</table>
| 12   | Nov 10*, 12 | Chapter 11 | Exam 2/Begin Chi Square | *Nov 10: Exam 2  
*HW 3 Due Nov 10 |
| 13   | Nov 17, 19 | Chapter 11, 12* | Cont. The Chi-Square  
/Measures of Association for Nominal and Ordinal Variables | Chapter 12* (pages 365-373; 381; 383-391 only in red book). You will not be expected to calculate Gamma or Kendall’s Tau-b |
| 14   | Nov. 24, 26 | TBD* | | *Thanksgiving week |
| 15   | Dec. 1*, 3 | Chapter 13 | Regression and Correlation | *HW 4 Due Dec 1 |
| 16   | Dec 8, 10* | Chapter 13 | Regression and Correlation cont. | *Last Day of Class |
| *Final Exam | Section 1 | (3:00-4:15) | Thur, Dec 18th 12:15-2:15 | *HW 5 Due at your Final  
Section 2 | (4:30-5:45) | Weds, Dec 17th 2:45-4:45 | |

Syllabus adapted in part from University Policy, as well as Dr. Van Dyke’s and Saul Cohn’s Statistics Syllabi.