San José State University  
Department of Sociology  
SOCl 15, Statistical Applications in the Social Sciences, Section 2,  
Spring, 2016  

Course and Contact Information  

Instructor: Michael Vallerga, M.A.  
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Email: michael.vallerga@sjsu.edu  
Office Hours: Mondays and Wednesdays, 3:00PM-4:15PM @ MQH 528  
Tuesdays and Thursdays, 12:00PM-1:15PM @ DMH 216  
By Appointment  
Class Days/Time: Tuesdays and Thursdays, 10:30AM to 11:45AM  
Classroom: Dudley Moorhead Hall 231  

Faculty Web Page and MYSJSU Messaging  
Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on the Canvas learning management system course website. Students are responsible for regularly checking the Canvas system to learn of any updates.  

Course Description  
Introduction to statistical applications, particularly statistical inference, including central tendency, variation, normal distributions, probability, estimation, hypothesis testing, measures of association, correlation, linear regression and the analysis of variance.  

Prerequisites: Satisfaction of the ELM requirement. Since SOCl 15 meets the mathematical concepts G.E. requirement (Area B4), students 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. Grades of C-and below do not. 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 to solve some statistical problems. Others will be solved by use of statistical software, putting to work these mathematical operations in more complex ways. We will use statistical formulas for both application and understanding. Students will need to be familiar with basic algebraic operations. Test items will typically be multiple choice, short answer, and essay, including word problems.

2. **Using mathematics to solve real life problems.** Practice problems and tests questions will be, in most cases, derived from everyday life and publically available data. However, some data will also be made up, but designed to reflect current events and issues.

3. **Arriving at conclusions based upon the numerical and graphical data.** We will be going over a few different ways to present data, highlighting the benefits and important aspects of each.

4. **Applying mathematical concepts in one or more areas.** After covering foundational statistical concepts, this course will focus on probability and inferential statistics. These are essential to understanding how statistics are used in academic writing and social scientific findings that support the fields that are covered in many future Sociology courses students will complete.

5. **Incorporating issues of diversity.** There will be a number of examples and test and homework questions that will deal with issues of diversity in a number of forms that include 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, students will be using their understanding of statistical concepts to interpret results, both in assignments and when responding to short answer/and or essay questions on quizzes and the Final Exam. Writing skills are important. A portion of how short answer and essay questions are evaluated will include the thoroughness and clarity of responses.

**Required Texts/Readings**

**Textbook**


**Required Software**

SPSS will be required for portions of this course. A student license is available for free if you bring them a thumbdrive (you may purchase it on a CD for $15) at the Academic Technology Computer Center in CL102 (Their hours are: Monday thru Thursday: 8:00 a.m. - 9:45 p.m. / Fridays: 8:00 a.m. - 4:45 p.m).
Alternatively, students may borrow a computer with SPSS from the Student Computing Services at the Library for a week at a time.

**Calculator**

Please be sure you have a simple calculator (not the calculator on your phone) that you can bring to quizzes and the final exam. Must be capable of at least a square root.

**Course Requirements and Assignments**

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at http://www.sjsu.edu/senate/docs/S12-3.pdf.

NOTE that University policy F69-24 at http://www.sjsu.edu/senate/docs/F69-24.pdf states that “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

**In-Class Assignments (24 Points)**

There will be time within most class meetings to complete an In-Class assignment. This is intended to give students a pen-on-paper activity to make sure that students are following along and to help them remember important parts of what was covered. There will be 26 of these over the course of the semester. The lowest score on two of these will be dropped, leaving students with 24 In-Class Assignments, each worth 1 Point.

These assignments will be on paper and only handed out and turned back in during class. Absent students may make up a maximum of four missed In-Class Assignments. Extenuating circumstances that make this not possible should be brought to my attention ASAP.

**Homework (24 Points)**

There will be a homework component every week. The first half of the course will involve homework assignments involving conceptual understanding of foundations of statistics, as well as some that include simple SPSS assignments. The second half will be almost exclusively SPSS assignments. The last homework will be briefly reviewed at the top of the class meeting that it was due by. There will be a total of 14 Homework Assignments over the course of the semester. The two lowest scored of these will be dropped, leaving students with 12 Homework Assignments, each worth 2 Points.
Quizzes (24 Points)

There will be three Quizzes. Each Quiz will cover the past topics since the previous Quiz. Each Quiz is worth 8 points.

Final (28 Points)

The Final will be cumulative and worth 28 Points.

Grading Policy

The final course grade will be based on a 100-point scale. Since the grade is based on mastery of the material, it is theoretically possible for everyone to earn an A.

My grading scale is:                The grade is composed of:
98 – 100 A+  92 – 97 A  90 – 91 A- In-Class Assignments 24 points
88 – 89 B+  82 – 87 B  80 – 81 B- Homework 24 points
78 – 79 C+  72 – 77 C  70 – 71 C- Quizzes 24 points
68 – 69 D+  62 – 67 D  60 – 61 D- Final Exam 28 points
59 and below F Total: 100 points

Extra Credit

There will be no Extra Credit assignments.

Note that “All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.” See University Policy F13-1 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.

Classroom Protocol

Instructor’s Note on Communication

As you know, a university degree is a significant undertaking and requires a high level of commitment, time management, organization, and initiative. Thus, it is in your best interest to stay on top of the readings and keep in touch with the instructor. The best way to keep in touch is in-person during office hours, or at another time by appointment. If you cannot meet with me in person, I prefer that you email me. Emails will be mostly only responded to during business hours (Monday through Friday only). Please note: all communication regarding assignment
grades and exam grades must be conducted in person and not via email. **When you send me an email please put “SOCI 15 Section 2” and your full name in the subject line. Emails without this will most likely be discarded without response.**

**Classroom Etiquette**

Please try to avoid being late. It is understood that many have numerous other commitments, but students must also understand that they have enrolled in school aware of the demands of those commitments. Please make arrangements in order to arrive in time for class to begin promptly at the designated time. Please silence all cell phones, laptops, and any other electronic device. The use of anything that beeps or consistently vibrates during class is disruptive and then the instructor will need to ask that it be turned off, and then no one is happy. Please don’t do rude things like texting or browsing the internet during class. Students are responsible for all missed notes, materials, and announcements due to absence (i.e., do not email the instructor asking about what you missed). Students are encouraged to exchange contact information with someone in class just in case you miss class.

**University Policies**

**General Expectations, Rights and Responsibilities of the Student**

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU’s policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arises. See [University Policy S90–5](http://www.sjsu.edu/senate/docs/S90-5.pdf) at [http://www.sjsu.edu/senate/docs/S90-5.pdf](http://www.sjsu.edu/senate/docs/S90-5.pdf). More detailed information on a variety of related topics is available in the [SJSU catalog](http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html). In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

**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](http://info.sjsu.edu/static/catalog/policies.html) section at [http://info.sjsu.edu/static/catalog/policies.html](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](http://www.sjsu.edu/provost/services/academic_calendars/). The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at [http://www.sjsu.edu/aars/policies/latedrops/policy/](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](http://www.sjsu.edu/advising/).
Consent for Recording of Class and Public Sharing of Instructor Material

University Policy S12-7, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course and the following items to be included in the syllabus:

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
  - Audio and video recording of lectures is not allowed without written permission. In such cases, the class meetings to be recorded must be enumerated.
  - Due to the active participation of students that may be on the recording, recording of the lecture must be precise to omit their participation, or permission of those students should be obtained as well.
  - As a side-note, due to in-class assignments and the lecture slides being available on CANVAS, recording lectures will not likely be very helpful.
- “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 homework solutions without instructor consent.”

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/.

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.

Accommodation to Students' Religious Holidays

San José State University shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before
the add deadline, the student must notify the instructor, in writing, at least three days before the
date that he/she will be absent. It is the responsibility of the instructor to make every reasonable
effort to honor the student request without penalty, and of the student to make up the work

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. A wide
variety of audio-visual equipment is available for student checkout from Media Services located
in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video,
slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless
microphones, projection screens and monitors.

SJSU Peer Connections

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students
to develop their potential as independent learners while they learn to successfully navigate
through their university experience. You are encouraged to take advantage of their services
which include course-content based tutoring, enhanced study and time management skills, more
effective critical thinking strategies, decision making and problem-solving abilities, and campus
resource referrals.

In addition to offering 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 including preparing for the Writing
Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving
your first semester at SJSU, and other related topics. A computer lab and study space are also
available for student use in Room 600 of Student Services Center (SSC).

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.

SJSU Counseling Services

The SJSU Counseling Services is located on the corner of 7th Street and San Fernando Street, in
Room 201, Administration Building. Professional psychologists, social workers, and counselors
are available to provide consultations on issues of student mental health, campus climate or
psychological and academic issues on an individual, couple, or group basis. To schedule an
appointment or learn more information, visit Counseling Services website at
http://www.sjsu.edu/counseling.
## Course Schedule

*(subject to change with fair notice via Class Announcement & CANVAS Note)*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Readings / Assignments Due</th>
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<tbody>
<tr>
<td>1</td>
<td>Jan 28</td>
<td>Introduction to Statistics</td>
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<tr>
<td>2</td>
<td>Feb 2</td>
<td>Levels of Measurement</td>
<td>Skim Chapter 1 &amp; Read Syllabus</td>
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<td></td>
<td>Feb 4</td>
<td>Intro to SPSS / Central Tendency</td>
<td><strong>HW 1; Get SPSS</strong></td>
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<td>3</td>
<td>Feb 9</td>
<td>Central Tendency</td>
<td>Read Chapter 2</td>
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<td></td>
<td>Feb 11</td>
<td>Variance &amp; Standard Deviation</td>
<td><strong>HW 2</strong></td>
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<tr>
<td>4</td>
<td>Feb 16</td>
<td>Variance &amp; Standard Deviation</td>
<td>Read Chapter 3</td>
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<tr>
<td></td>
<td>Feb 18</td>
<td>Frequency Distributions &amp; Visualizing Data</td>
<td><strong>HW 3</strong></td>
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<tr>
<td>5</td>
<td>Feb 23</td>
<td>Frequency Distributions &amp; Visualizing Data/ Review</td>
<td>Read Chapter 4</td>
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<tr>
<td></td>
<td>Feb 25</td>
<td>Quiz 1</td>
<td><strong>HW 4</strong></td>
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<tr>
<td>6</td>
<td>Mar 1</td>
<td>Hypothesis Testing</td>
<td>Read Chapter 7</td>
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<td></td>
<td>Mar 3</td>
<td>Probability</td>
<td><strong>HW 5</strong></td>
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<tr>
<td>7</td>
<td>Mar 8</td>
<td>Probability</td>
<td>Read Chapter 8</td>
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<td></td>
<td>Mar 10</td>
<td>Significance Tests</td>
<td><strong>HW 6</strong></td>
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<td>8</td>
<td>Mar 15</td>
<td>Significance Tests</td>
<td>Read Chapter 9</td>
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<td></td>
<td>Mar 17</td>
<td>Z-Test</td>
<td>Read Chapter 10; <strong>HW 7</strong></td>
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<td>9</td>
<td>Mar 22</td>
<td>Z-Test / Review</td>
<td><strong>HW 8</strong></td>
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<td>Mar 24</td>
<td>Quiz 2</td>
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<td>10</td>
<td>Mar 29</td>
<td><em>Spring Recess – No Class</em></td>
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<td>Mar 31</td>
<td><em>Spring Recess – No Class</em></td>
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<tr>
<td>11</td>
<td>Apr 5</td>
<td>T-Test</td>
<td>Read Chapter 11</td>
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<td></td>
<td>Apr 7</td>
<td>T-Test</td>
<td><strong>HW 9</strong></td>
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<tr>
<td>12</td>
<td>Apr 12</td>
<td>T-Test / Writing Inferential Statistics</td>
<td>Read Chapter 12</td>
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<td></td>
<td>Apr 14</td>
<td>ANOVA</td>
<td><strong>HW 10</strong></td>
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<tr>
<td>13</td>
<td>Apr 19</td>
<td>ANOVA</td>
<td>Read Chapter 13</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Topics</td>
<td>Readings / Assignments Due</td>
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<tr>
<td>14</td>
<td>Apr 21</td>
<td>ANOVA / Review</td>
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<td></td>
<td>Apr 26</td>
<td>Quiz 3</td>
<td>HW 11</td>
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<td></td>
<td>Apr 28</td>
<td>Correlation &amp; Regression: The Basics</td>
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<tr>
<td>15</td>
<td>May 3</td>
<td>Correlation</td>
<td>Read Chapter 15; HW 12</td>
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<td></td>
<td>May 5</td>
<td>Regression</td>
<td>Read Chapter 16; HW 13</td>
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<td>16</td>
<td>May 10</td>
<td>Regression</td>
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<td></td>
<td>May 12</td>
<td>Chi-Square</td>
<td>Read Chapter 17; HW 14</td>
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<tr>
<td>17</td>
<td>May 17</td>
<td>STUDY DAY – No Class</td>
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<tr>
<td>Final Exam</td>
<td>May 18th, DMH 231 9:45AM – 12:00PM</td>
<td>FINAL EXAM</td>
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