General Education Annual Course Assessment Form

Course Number/Title: Soci. 15: Statistical Applications in the Social Sciences

GE Area: B4                               Results reported for AY: 17-18

# of sections: 2                           # of instructors assessed: 1

Course Coordinator: Dr. Megan Thiele       Email: megan.thiele@sjsu.edu

Department Chair  Dr. Carlos Garcia        College of Social Sciences

Instructions: Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be electronically submitted, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by September 1 of the following academic year.

Part 1

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.

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.
(1) What SLO(s) were assessed for the course during the AY?

For annual year 2017-2018, **SLO 3 Mathematical concepts courses should prepare the student to arrive at conclusions based on numerical and graphical data** was assessed. Dr. Sweet moved the pre-test/post-test design online and administered a multiple-choice questionnaire with 10 questions during the first week of class and during the final weeks of class. In order to answer questions correctly on this pre-/post-test students were required to have an understanding of core concepts from the term including being able to calculate percentages, understand the difference between the three measures of central tendency: median, mean and mode, match types of graphs with variable level: nominal, ordinal, interval-ratio. This assessment relates to the SLO by allowing students to demonstrate they arrive at conclusions based on numerical data.

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

**Pre-test/Post-test result**

Overall, student scores went up an average of 12 percentage points from the pre-test to the post-test for section 1 and 13 percentage points from section 2.

Question number three (below) assesses students ability to calculate a basic central tendency statistic from numerical data:

A sample of 10 adults yields the following data regarding the number of texts they send per day:
1, 0, 2, 1, 3, 5, 4, 3, 2, 2

What is the mean number of texts made by the people in this sample?
- a. 2
- b. 2.3
- c. 4
- d. 23

In section 1, the percentage of students answering this question correctly went up by only 2 percent, however, in section 2, this score went up 12% points. Why these differences? The good news is that both scores went up and also that over ninety percent of the students at T1 in section one were getting this problem correct.

I still have several concerns about the current method of assessment. I do like that the quiz has moved online, however, students still undergo three exams and up to 10 pop-quizzes in this class. Further, the post-test is positioned at the very end of the semester where students are particularly stressed about finals and have undergone a whole semester of testing. I want to embed the problems into student exams or home works in order to alleviate unnecessary testing. Second, these students are aware that the pre-test/post-test assessment does not count towards
their grade. I feel this may decrease their performance. If problems were embedded in exams or homework students would have that increased incentive of earning a good grade to incentivize them.

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

This course is undergoing intense renovation as it has been picked up by Peer Connections. This semester, three instructors are teaching this course and we have two student supplemental instructors who work with students from all three sections. In short, we are becoming more coordinated. We are all teaching from the same textbook and have agreed which lessons to attend to most. We are also creating a Canvas Shell to include resources for students in all three sections. We continue to modify and amend our teaching materials and presentations.

Part 2

To be completed by the department chair (with input from course coordinator as appropriate):

(3) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment? If they are not, what actions are planned?

Yes