USF Sarasota-Manatee - New Undergraduate Course Proposal Form – Course originally submitted as ISS 3100

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1. **College / School Contact Information**

Tracking Number	Date & Time Submitted	
77	2013-11-06 08:44:27.0	
Discipline	**College/School**	**Budget Account Number**
Interdisciplinary Social Sciences		120700004
Contact Person	**Phone**	**Email**
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2. **Course Information**

Prefix	Number	Full Title
ISS	3311	Applied Statistics for the Social Sciences

Is the course title variable?	N
Is a permit required for registration?	N
Are the credit hours variable?	N

Credit Hours	Section Type	Grading Option
3	Class Lecture (Primarily)	Regular

Abbreviated Title (30 characters maximum)
Applied Statistics

5. Prerequisites
   STA 2023
6. Corequisites
7. Co-Prerequisites
8. Course Description
   This course builds on a basic knowledge of descriptive and inferential statistics and demonstrates the application of statistics in the social scientific research. Students test hypotheses using statistical software and interpret statistical output.
9. **Justification**

(This section is critical since the APC members will make their decision based on the information provided here. The information should be in the following outline form.)

A. Indicate how this course will strengthen the Undergraduate Program. Is this course necessary for accreditation or certification?

> This course will strengthen the ISS program by teaching students about the use of statistics in social science research and how to apply statistical procedures to examine social scientific questions. Much of the research within the social science disciplines is based on the use of quantitative research for theory testing. In order to engage with the social scientific literature, it is essential that students understand the use of statistical methods to interpret

and analyze research in their concentration areas. Students will need to understand how quantitative analyses are used in the different social science disciplines (e.g., how and why statistics are used in political science, psychology, and sociology). Students will need these skills for a meaningful experience in the subsequent ISS courses on research methods in ISS, interdisciplinary integration, and the capstone seminar.

The current requirement, STA 2122, does not require a math-based statistics prerequisite. We have found that it is too difficult to teach students to apply statistical procedures to social scientific problems without having some background in introductory statistics. Therefore, we would like to have the course, STA 2023, Introductory Statistics I, as a prerequisite for the new ISS applied statistics course.

B. What specific area of knowledge is covered by this course which is not covered by courses currently listed?

1. The use of statistics in different social science disciplines 2. The measurement of social scientific concepts 3.The application of statistical techniques analysis including frequency distributions, graphical displays of data, measures of central tendency and dispersion, t-tests for independent and related samples, analysis of variance, chi-square, and correlation in social scientific research 4. The management and utilization of large data sets 5. The use of SPSS statistical software for data analysis 6. The interpretation of statistical output and published quantitative research

C. What is the need or demand for this course? (Indicate if this course is part of a required sequence in the major.) What other programs would this course service?

We expect approximately 25 students will take the course per semester. This estimate is based on the number of students typically enrolled in the traditional format STA 2122 course per semester. When the course is taught online, we typically see larger enrollments that include students from other campuses. Although students from other USF campuses may not take the new ISS statistics course, we expect that enrollment will be roughly similar to what we see for the traditional, in-person course.

D. Has this course been offered as Selected Topics/Experimental Topics course? If yes, what was the enrollment?

no

E. How frequently will the course be offered? What is the anticipated enrollment?

It will be offered at least one section per semester. We expect approximately 25 students will take the course per semester. This estimate is based on the number of students typically enrolled in the traditional format STA 2122 course per semester. When the course is taught online, we typically see larger enrollments that include students from other campuses. Although students from other USF campuses may not take the new ISS statistics

course, we expect that enrollment will be roughly similar to what we see for the traditional, in-person course.

F. Do you plan to drop a course if this course is added? If so, what will be the effect on the program and on the students? (If dropping/deleting a course please complete the nonsubstantive course change form.)

ISS faculty will no longer teach STA 2122. ISS students from other USF campuses would no longer take their statistics requirement from ISS faculty on USFSM campus. Faculty from other disciplines at USFSM (e.g., math) may still teach this course.

G. What qualifications for training and/or experience are necessary to teach this course? (List minimum qualifications for the instructor.)

A master's degree with at least 18 graduate credit hours in a social science dicsipline and experience teaching quantitative analysis or utilizing quantitative analysis in social scientific research.

10. **Other Course Information**

A. Objectives

1. Understand the application of statistics to social scientific research questions 2. Gain familiarity with large data sets 3. Develop statistical analysis skills 4. Develop skills in using computer software for statistical analyses

B. Learning Outcomes

1. Apply appropriate statistical procedures for hypothesis testing in the social sciences 2. Use SPSS statistical software to analyze data 3. Identify and utilize large data sets for social scientific research 4. Interpret statistical output and draw conclusions about social scientific phenomena 5. Interpret published quantitative research in the social sciences

C. Major Topics

1. The use of statistics in different social science disciplines 2. The measurement of social scientific concepts 3. The application of statistical techniques including frequency distributions, graphical displays of data, measures of central tendency and dispersion, t-tests for independent and related samples, analysis of variance, chi-square, and correlation in social scientific research 4. The management and utilization of large data sets 5. The use of SPSS statistical software for data analysis 6. The interpretation of statistical output and published quantitative research

D. Examples of Course Textbooks and Course Readings

1. Gelman, A. & Cortina, J. (2009). A Quantitative Tour of the Social Sciences. New York: Cambridge University Press. 2. Szafran, R. (2012). Answering Questions with Statistics. Los Angeles: Sage.