Social Science Statistics

Text:

Our text was specifically designed for an introductory course in statistics for social science majors. We will closely follow the text throughout the course with clarification and elaboration in class lectures. The homework problems found at the end of each chapter are an important adjunct to this course. Statistics, unlike many other courses, is a cumulative area of study. Each new technique will build on previously learned principles. If you understand the principles covered by each problem and can work them with a minimum of effort, you can feel comfortable about your statistical knowledge up to that point. The conceptualization of techniques that we cover later requires a sound understanding of the fundamentals covered earlier in the course.

Course Description:

This course presents both descriptive and inferential statistics. The course presents statistics with the view that numbers are a limited, but important aspect of understanding the world. The course explores statistical and research concepts as they are applied across a broad range of disciplines and settings. The role of statistical analysis in the overall research process is presented. And finally, this course will focus on the conceptual understanding of descriptive and inferential statistical analyses, the ability to solve statistical problems, as well as the utilization of statistical presentation of data and hypothesis testing as methods of conducting scientific research.

There are no pre-requisites for this course, and a familiarity with higher mathematics is not required. Little mathematical background is required for this course. The emphasis will instead be upon the logic and application of fundamental statistical techniques.

Course Goals:

The goals for this course are:

1. to teach the theoretical foundations of descriptive research methodology and associated statistical analysis.
2. to develop practical applications for the methodologies and statistics discussed, with particular emphasis on the application to the social and behavioral sciences.
3. to investigate and discuss the importance of empirically-based and data-based decision-making across a broad range of professions.
4. to present a professional orientation towards research that includes a research-practitioner approach towards application in the workplace.
5. to discuss the integration of a personal philosophy regarding the role of descriptive methodologies in future professional and academic endeavors.
6. to be exposed to a variety of different statistical tests and methods of data analyses appropriate for the purposes and exigencies of different research situations.
7. to develop an understanding and awareness of ethical standards in the design and conduct of research.

Performance Objectives:
The following objectives are derived from the educational goals of the course. Upon successful completion of the course, the student will:

1. demonstrate the skills necessary to apply descriptive design and analysis procedures to problem-solving and decision-making.
2. perform basic descriptive and nonparametric statistical techniques, and apply them to appropriate research situations. These include, but are not limited to, measures of central tendency and variability, standard scores, sampling strategies, confidence intervals, chi-square test, t-test, correlations, etc.
3. demonstrate an understanding of the terminology and concepts of descriptive research, to be able to distinguish it from other methodologies, and be able to describe its potential use and limitations.
4. learn methods of data collection, classification, and how to determine the appropriate statistical techniques to apply to data in order to make informed decisions about relationships and comparisons.
5. learn to draw the appropriate conclusions from data analysis based on tests of significance and hypothesis testing, and demonstrate understanding of the limitations of data analysis due to factors related to sampling, sample size, type of data collected, researcher and subject influences, kind of statistic used, design features of the study, application and generalizability to other settings, etc.
6. demonstrate an understanding of, and be able to apply, ethical standards for the treatment of human subjects in research, and the responsible handling and communication of data in a research study.

Exams:
There will be two (2) exams. Each exam will be given equal weight in determining your final grade. The exams will be partly theoretical (closed book) and partly problem-solving (open book). **Do not miss an exam.** Excused absences are acceptably documented medical problems, family crises, or legal circumstances. All else is unexcused. Transportation and job problems are not excused. In the event of an excused absence, it is the students' responsibility to notify me at the telephone number listed above, or through the University at (941) 359-4454 (College of Arts & Sciences, USF Sarasota-Manatee).
Grading Criteria:

Each of the exams consists of 100 points. The first part of each exam (closed book; true/false and multiple choice questions) consists of 50 points, and the second part (open book/materials; problem-solving) also consists of a possible 50 points. Both the midterm and the final exam will be given equal weight, and the final average of the two exams will result in the grading criteria as follows;

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<th>final average</th>
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Academic Dishonesty/Plagiarism

In an effort to foster a spirit of honesty and integrity during the learning process, the submission of all course assignments must represent the original work produced by that student. All sources must be documented through normal scholarly references/citations and all work must be submitted using the *Publication Manual of the American Psychological Association, 6th ed. (2009).* Washington DC: American Psychological Association (APA) format. Students are encouraged to purchase this manual and become familiar with its content. Additionally, the resubmission of a work produced for one course in a subsequent course, or the submission of work done partially or entirely by another, is considered to be academic dishonesty. It is the student’s responsibility to seek clarification from the instructor regarding how much help may be received in completing an assignment, exam or project and what sources may be used.

Scholarly writing: The faculty is dedicated to providing a learning environment that supports scholarly and ethical writing which is free from academic dishonesty and plagiarism. This includes the proper and appropriate referencing of all sources. You may be asked to submit your course assignments through “SafeAssign”, an online resource established to help educators develop writing/research skills and detect potential cases of academic dishonesty. SafeAssign compares submitted papers to billions of pages of content and provides a comparison report to your instructor. This comparison detects papers that share common information and duplicative language.
The University considers any form of plagiarism or cheating on exams, projects, or papers to be unacceptable behavior. Please be sure to review the university’s policy in the catalog, USFSM Undergraduate Catalog or USFSM Graduate Catalog and the USF Student Code of Conduct.

Disabilities Accommodation
Students are responsible for registering with the Office of Students with Disabilities Services (SDS) in order to receive academic accommodations. Reasonable notice must be given to the SDS office (typically 5 working days) for accommodations to be arranged. It is the responsibility of the student to provide each instructor with a copy of the official Memo of Accommodation. Contact information: Disability Coordinator: 359-4717; disabilityservices@sar.usf.edu; http://www.usfsm.edu/students/disability/

Religious Observances Statement
The University recognizes the right of students and faculty to observe major religious holidays. Students who anticipate the necessity of being absent from class for a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second week of classes. http://generalcounsel.usf.edu/policies-andprocedures/pdfs/policy-10-045.pdf

Academic Disruption
The University does not tolerate behavior that disrupts the learning process. The policy for addressing academic disruption is included with Academic Dishonesty in the catalog: USFSM Undergraduate Catalog or USFSM Graduate Catalog and the USF Student Code of Conduct.

Emergency Preparedness
It is strongly recommended that you become familiar with the USF Sarasota-Manatee Emergency Action Plan on the Safety Preparedness site http://www.sarasota.usf.edu/facilities/SafetyPreparedness.php

Contingency Plans
In the event of an emergency, it may be necessary for USFSM to suspend normal operations. During this time, USFSM may opt to continue delivery of instruction through methods that include but are not limited to: Blackboard, Elluminate, Skype, and email messaging and/or an alternate schedule. It’s the responsibility of the student to monitor Blackboard site for each class for course specific communication, and the main USFSM and College websites, emails, and MoBull messages for important general information. The USF hotline at 1 (800) 992-4231 is updated with pre-recorded information during an emergency. See the Safety Preparedness Website for further information. http://www.sarasota.usf.edu/facilities/SafetyPreparedness.php

Fire Alarm Instructions
At the beginning of each semester please note the emergency exit maps posted in each classroom. These signs are marked with the primary evacuation route (red) and secondary evacuation route (orange) in case the building needs to be evacuated.

Canvas use
Canvas will only be used in this class for posting the syllabus and grades.
Canvas Support is available through USFSM E-Learning staff from 9am to 5pm Monday through Friday. Please call or email Dale Drees at 941-359-4215  djdrees@sar.usf.edu

If you need assistance outside of USFSM's E-Learning hours please call the USF Tampa IT helpdesk. They provide 24 hour support.

**Laptop Use in Class**
Student are invited to bring their laptop computers to class whenever they wish.

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**CLASS SCHEDULE  Tuesday, 6pm – 8:50pm**

August 26  ---------  First class; introduction to course, expectations, course overview,
            (assignment: read chapter 1 for next week, and recommend working problems at end of the chapters)

September 2  ---------  Presentation and discussion of chapter 1.
                (assignment: read chapters 2 and 3 for next week)

September 9  ---------  Presentation and discussion of chapters 2 and 3.
                (assignment: read chapter 4 before next class)

September 16  ---------  Presentation and discussion of chapter 4.
                (assignment: read chapter 5 before next class)

September 23  ---------  Presentation and discussion of chapter 5
                (assignment: read chapter 6 before next class)

September 30  ---------  Presentation and discussion of chapter 6
                (assignment: read chapter 7 before next class)

October 7  ---------  Presentation and discussion of chapter 7.
                (assignment: review chapters 1-7 before next class)
October 14        --------  **Midterm Exam**
               (assignment: read chapter 9 before next class)

October 21       --------  Review Midterm Exam. Presentation and discussion of chapter 9
               (assignment: read chapter 10 before next class)

October 28       --------  Presentation and discussion of chapter 10.
               (assignment: review chapter 10 before next class)

November 4       --------  Continue presentation and discussion of chapter 10.
               (assignment: read chapter 12 before next class)

November 11      --------  **Veterans Day Holiday; No Class**

November 18      --------  Presentation and discussion of chapter 12.
               (assignment: continue chapter 12)

November 25      --------  Continue presentation and discussion of chapter 12.
               (assignment: review chapters 9, 10, and 12)

December 2       --------  **Final Exam**