

SOCI 3443.03: SOCIAL STATISTICS

Fall, 2017

Credit Hours: 4 hours

Location of Class Meeting: CHSS 226

Class Meeting Time: Mondays and Wednesdays: 12:30-1:50 p.m.

Lab Meeting Time: Online

Instructor: Dr. Furjen Deng; Office Location: CHSS, 270U

Instructor Contact Information: (936) 294-1515, Fax: (936)294-3573, Email: soc_fjd@shsu.edu

Office Hours: Mondays and Wednesdays: 10 a.m.-12 p.m., or by appointment

Teaching Assistant: Eunjin Hwang ; Office Hours: _____

COURSE DESCRIPTION:

This course is designed to introduce students to the three broad categories of statistical techniques: Descriptive statistics, measures of association, and statistical inferences. Lectures, assigned readings, in-class exercises, and homework assignments will be used to describe and illustrate the logic, interpretation, and basic assumptions of various statistical techniques. To further enhance the learning process, Statistical Package for Social Sciences (SPSS) is also adopted to analyze the data. All students are also required to register the online lab section (SOCI3443.04).

COURSE OBJECTIVES:

1. To gain factual knowledge and to provide a clear and detailed step-by-step illustrations of statistical techniques taken up in this course.
2. To learn how to apply course material to improve thinking, problem solving, and decision making.
3. To learn how to find and use resources for answering questions or solving problems.
4. To learn how to use data in the SPSS statistical package, to compute statistics using SPSS, and to interpret the statistical outputs from SPSS.

TEXTS:

1. Robert R. Pagano, Understanding Statistics in the Behavioral Science, 9th Edition, Wadsworth Cengage.
2. Online Statistics Education: A Multimedia Course of Study (<http://onlinestatbook.com/>). Project Leader: David M. Lane, Rice University. University of Houston Clear Lake, and Tufts University. Free online e-book.
3. Khan Academy, Probability and Statistics. Free online lecture.
<https://www.khanacademy.org/math/probability/statistics-inferential>.
4. SPSS Software: If you are on campus, you may access SPSS through SHSU Programs. You may also request SPSS home use license for students by calling SHSU-IT Service Desk. Their phone number is: 936-294-1950.

REQUIREMENTS:

Class Attendance (4%): Following University policy pertaining to class attendance, regular attendance is expected of each student. Particular in borderline cases, exceptionally fine or weak class involvement will be considered in the calculation of the final grade. The highest class attendance grade is an "A" and this allows up to six hours absence.

Homework Assignments: There will be **twelve** homework assignments (2% each). The homework will be a combination of pencil and computer exercises. **You will be allowed to drop one lowest homework assignment grade at the end of the semester and replaced with the highest assignment grade.** Homework is normally due at one week after it is given. **NO LATE HOMEWORK.**

Exams: There will be **FOUR major exams (19% each)**. All exams are open books and open notes. Specific dates for exams will be announced in the class as the course progresses. The student is allowed to make up one missed exam if she or he receives consent from the instructor before the exam. **Any makeup exam will be held at the end of the semester and is a comprehensive exam.**

GRADING PLAN:

Your final course grade will be computed as follows:

| <u>Source</u> | <u>Percent</u> |
|-------------------------|----------------|
| 12 Homework Assignments | 24 |
| 4 Major Exams | 76 |
| Attendance | 4 |
| Total | 104 |

You should get about 90% overall for an "A", 80% for a "B", 70% for a "C", and 60% for a "D". The cut-offs, however, are flexible and I may change them at the end of the semester if I consider it necessary. All assignments, supplemental materials, due dates for assignments, dates for major exams, and other important announcements related to the course are posted in the Blackboard. To access the Blackboard, go to www.shsu.edu and select "Blackboard" at "University Fast Links."

Courses may be dropped without a grade of "F" through the last class day, but prior to any final exams being taken or course completion. Students wishing to drop courses after the term's online drop deadline must submit a drop request form, signed by the professor, to the Registrar's Office.

UNIVERSITY CODE OF CONDUCT

Each student is expected to be fully acquainted and comply with all published policies, rules, and regulations of the component, copies of which shall be available to each student for review online and/or at various locations on each campus. Students are also expected to comply with all federal and state laws.

Each student is also expected to act in a manner consistent with the component functions as an educational institution, including off campus conduct that is likely to have an adverse effect on the component or on the educational process. No person or group of persons acting in concert may willfully violate the following rules. For a detailed description of this policy and specific examples of misconduct for which students may be subject to disciplinary action, please visit the following link: <https://netreg.shsu.edu/mirror/codeofconduct.html>.

ACADEMIC DISHONESTY POLICY

All students are expected to engage in all academic pursuits in a manner that is above reproach.

Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. At a minimum the student will receive a failing grade on the assignment in which dishonesty was involved. For a detailed description of this policy, please visit the following link: <http://www.shsu.edu/syllabus/>

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:

<http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. "Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code. For a detailed description of this policy, please visit the following link:

<http://www.shsu.edu/dept/academic-affairs/documents/aps/students/861001.pdf>

CLASSROOM RULES OF CONDUCT

Each student is expected to be fully acquainted and comply with all published policies, rules, and regulations of Sam Houston State University. Students are also expected to comply with all federal and state laws.

Section 5.2.22 of the Code of Student Conduct and Discipline defines that campus disruptive activities or disorderly conduct on component-owned or controlled property or at a component-sponsored or supervised function that inhibit or interfere with the educational responsibility of the component community or the component's social-educational activities shall include but not be limited to: using abusive, indecent, profane or vulgar language; making offensive gestures or displays that tend to incite a breach of the peace; perpetrating fights, assaults, acts of sexual violence, abuse, or threats; or evincing some obviously offensive manner or committing an act that causes a person to feel threatened. Such prohibition includes disorderly classroom conduct that obstructs, interferes with, inhibits and/or disrupts teaching and/or related classroom activities. **All cell phones should also be turn off or put in silent mode during the class.**

VISITORS IN THE CLASSROOM:

Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

INSTRUCTOR EVALUATIONS

To enhance the quality of teaching, each student will be asked to complete a course/instructor evaluation form toward the end of the semester.

COURSE OUTLINE AND ASSIGNED READINGS

| | |
|--------|--|
| Week 1 | The Role of Statistics in the Social Research Process Read: Notes, Topic 1; Pagano, Chs. 1 and 2; Lane, Chs. I and VI Assignment 1 |
| Week 2 | Organizing and Presenting Univariate Data; Descriptive Statistics Read: Notes, Topic 2; Pagano, Ch. 3; Lane, Ch. II Assignment 2 |
| Week 3 | Learning SPSS 22.0 for Windows Read: Notes, Topic 4 Assignment 3 |

Week 4 Describing Frequency Distributions; Measures of Central Tendency
Read: Notes, Topic 4; Pagano, Ch.4; Lane, Ch. III: 1-11, 21
Assignment 4

Week 5 Describing Frequency Distribution; Measures of Variation
Read: Notes, Topic 5; Pagano; Ch. 4; Lane, Ch. III: 12-19, 21
Assignment 5

Exam One

Week 6 The Normal Probability Distribution and Standard Score
Read: Notes, Topic 6; Pagano, Ch. 5; Lane, Ch. VII
Assignment 6

Week 7 Sampling Distributions and Binomial Distribution
Read: Notes, Topic 7; Pagano, Ch. 8, 9 & 12; Lane, Ch. IX
Assignment 7

Week 8 Inferential Statistics: Point and Interval Estimation
Read: Notes, Topic 8; Pagano, Ch. 13: 331-335; Lane, Ch. X: 1-10
Assignment 8

Exam Two

Week 9 Hypothesis Testing and One-Sample Tests
Read: Notes, Topic 9; Pagano, Ch. 10 & 13: 319-329; Lane, Ch. XI and XII: 1-2
Assignment 9

Week 10 Significance Tests for the Difference between Means and Between Proportions
(Two-Sample Test) Read: Notes, Topic 10; Pagano, Ch. 14; Lane, Ch. XII: 4
Assignment 10

Week 11 Analysis of Variance; K-Samples Tests
Read: Notes, Topic 11; Pagano, Ch. 15; lane, Ch. XV: 1-4
Assignment 11

Exam 3

Week 12 Crosstabulation/Contingency Analysis
Read: Notes, Topic 12; Pagano, Ch. 17; Lane, Ch. XVII
Assignment 12

Thanksgiving Holidays November 22 to 24

Week 13 Correlation Analysis
Read: Notes, Topic 13; Pagano, Ch. 6; Lane IV: 1- 6
Assignment 13

Exam Four/Final Exam (December 4, 1:00 to 3:00 p.m.)
