HSP 4337
Statistical Techniques for Healthcare Professionals
Spring 2020

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Office Hours: By Appointment

Course Information

Course Description
A practical application of health-related statistical analysis providing students with the knowledge and skills needed to read, interpret, and evaluate quantitative findings in medical and allied health literature.

Course Credits
Three Semester Credit Hours (3-0-0)

Prerequisite and Co-requisite Courses
None

Prerequisite Skills
Accessing internet web sites, use of ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of the Health Science Professions Program. Computer access requirements are further delineated in the Undergraduate Handbook. Tutorials for ASU Library and for Blackboard are available through

Program Outcomes
Mission Statement
The Bachelor of Science in Health Science Professions prepares students to enter health science professions either directly upon graduation or to enter advanced graduate study in healthcare. Students gain knowledge in ethics, policy, epidemiology, organization and leadership, research
and evidence based practice, and communication skills that span multiple health science disciplines.

**Goals**
The Bachelor of Science in Health Science Professions strives to enhance multidisciplinary healthcare education and evidence-based principles to provide patient-centered care. Students will develop communication, decision-making, social, analytical thinking, and personal development skills necessary for professional practice as a healthcare professional.

**Student Learning Outcomes**

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<tr>
<th>Student Learning Outcome</th>
<th>Assignment(s) or activity(ies) validating outcome achievement:</th>
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<tr>
<td>By completing all course requirements, students will be able to:</td>
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<tr>
<td>1. Understand statistical concepts utilized in research within the social sciences.</td>
<td>Lectures, Exams, Assignments</td>
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<tr>
<td>2. Apply the mathematical/Statistical techniques presented for social science research.</td>
<td>Lectures, Exams, Assignments</td>
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<tr>
<td>3. Demonstrate an ability to analyze and interpret data within the social sciences.</td>
<td>Lectures, Exams, Assignments</td>
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<tr>
<td>1. Analyze practical examples as to when certain statistical techniques are appropriate for analysis</td>
<td>Lectures, Exams, Assignments</td>
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**Course Delivery**
This is a face-to-face course with learning resources and supplemental materials posted in Blackboard.

**Required Texts and Materials**
- A free and open companion website for this textbook is available to help you study. This site, at [https://edge.sagepub.com/coolidge4e/student-resources-0](https://edge.sagepub.com/coolidge4e/student-resources-0) includes the data sets for the exercises in the book, as well as practice quizzes, flashcards, videos, and journal articles.

**Technology Requirements**
- **Technical Assistance**: If you have any technical problems associated with assignments or quizzes (i.e. webcam problems, lock down browser problems) you should contact the IT
Department. The IT Service Department is open M-F from 8-5 and the number is (325) 942-2911. If you call any time after 5 or on the weekend, most likely you will not be able to get assistance until the following week day, so please plan accordingly.

**Topic Outline**
- Descriptive Statistics
- Central Distributions
- Correlation Coefficients
- Hypothesis Testing
- Inferential Statistics
- Normal Distributions
- Statistical Significance
- T-Tests
- Analysis of Variance
- Correlation Coefficient
- Linear Regression
- Non-parametric Statistics

**Communication**
Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

*Written communication via Blackboard:* It is an expectation of this class that you use formal writing skills giving appropriate credit to the source for your ideas. Follow APA (2010) 6th edition (2nd Printing or higher only) guidelines for referencing.

*Written communication via email:* All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes.

*Virtual communication:* Office hours and/or advising may be done with the assistance of the telephone, Skype, Join.me, Google Hangouts, etc.

**GRADING SYSTEM**
Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:
- A = 540-600 points
- B = 480-539 points
- C = 420-479 points
- D = 360-419
- F = 0-359 *(Grades are not rounded up under ANY circumstances. Period.)*
EVALUATION AND GRADES
Graded assignments, activities and percent of the overall course grade:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>PERCENT OF TOTAL GRADE</th>
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<tbody>
<tr>
<td>1. Worksheets</td>
<td>200 Points</td>
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<tr>
<td>2. Lectures</td>
<td>140 Points</td>
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<tr>
<td>2. Quizzes</td>
<td>160 Points (4 x 40)</td>
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<tr>
<td>3. Exams (Midterm and Final)</td>
<td>200 Points (2 Exams)</td>
</tr>
<tr>
<td>TOTAL COURSE GRADE</td>
<td>600 points total</td>
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Teaching Strategies
Students are expected to be “active learners.” It is a basic assumption of the instructor that students will be involved (beyond the materials and lectures presented in the course) discovering, processing, and applying the course information using peer-review journal articles, researching additional information and examples on the Internet, and discussing course material and clinical experiences with their peers.

Assignment and Activity Descriptions
*Please note: Rubrics for all assignments and activities are located at the end of this syllabus.

ASSIGNMENT/ACTIVITY DESCRIPTIONS
*Please note: Instructions for all assignments and activities are located at the end of this syllabus & in Blackboard.
*No extra credit assignments are provided.

Assignments and exams used to enhance your learning experience in this course include:
1. **Worksheets**: Students will be responsible for the completion of eight worksheet assignments. The purpose of the assignment is to assist students in applying their understanding of the statistical procedures discussed in class as well as to provide an opportunity for students to respond to the readings.

2. **Readings/Lectures**: You are responsible for the material covered in the book prior to attending class. Please note that the week’s readings are specified in the class schedule on the following pages. In addition to these readings, the instructor may assign supplemental readings throughout the semester. These supplemental readings do not appear on the schedule as these readings will be assigned at the instructor’s discretion.

Video Participation: Videos discussing the information of each chapter will be posted. Students are required to watch the videos and answer a few questions about the lecture. The new software allows the instructor to see if the video has actually been watched or fast forwarded to the questions. If you answer the questions without watching the videos, students will not receive full credit.
3. **Quizzes:** Bi-Weekly quizzes will be given throughout the semester and will require that you read and respond to material in the textbook as well as work out mathematical/statistical procedures discussed in class.

4. **Exams:** Three exams will be given on the material covered in the class and on the assigned readings. Exams will be based on the readings, material discussed in class, quizzes, and homework assignments.

**Assignment Submission**

All assignments MUST be submitted through the Assignments link in the Blackboard site. This is for grading, documenting, and archiving purposes. Issues with technology use arise from time to time. If a technology issue does occur regarding an assignment submission, email me at Dinah.harriger@angelo.edu and attach a copy of what you are trying to submit. Please contact the IT Service Center at (325) 942-2911 or go to your Technology Support tab to report the issue. This lets your faculty know you completed the assignment on time and are just having problems with the online submission feature in Blackboard. Once the problem is resolved, submit your assignment through the appropriate link. This process will document the problem and establish a timeline. Be sure to keep a backup of all work.

**Late Work or Missed Assignments Policy**

The course is set up on weekly modules. The week begins on Monday and ends on Sunday. Assignment due dates are shown on the calendar/schedule or posted within Blackboard. Late assignments are not accepted without prior approval of faculty. Faculty reserve the right to deduct points for late assignments that are accepted past the original due date.

**General Policies Related to This Course**

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook]
- [Angelo State University Catalog]

**Student Responsibility and Attendance**

**Course Syllabus Statement on Required Use of Masks/Facial Coverings by Students in Class At Angelo State University**

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory [Facial Covering Policy] to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability.
For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

Class attendance is necessary and required for successful and satisfactory completion of all course objectives; therefore, students must attend all course sessions. If a situation arises that prevents the student from attending, he or she should contact the instructor.

According to the undergraduate handbook, a week’s worth of cumulative absences (regardless of the nature of the absence) in any one course will result in faculty evaluation of the student’s ability to meet course objectives and may result in failure of the course. Three tardies (over 5 minutes late for lecture, campus laboratory, or clinical) will equal 1 hour of absence. Failure to meet these requirements hinders the student’s ability to complete the course. Attendance will be checked for each lecture.

Students are expected to engage in course activities and submit work by due dates and times. The hope is that students will make substantive contributions which reflect integration of assigned materials as well as any outside readings as appropriate. Scholarly contribution is an expectation. For planning purposes, this class will probably require a minimum of 6-9 study hours per week on average.

**Academic Integrity**

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Health and Human Services adheres to the university’s [Statement of Academic Integrity](#).

**Accommodations for Students with Disabilities**

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability](#).
The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu  
Houston Harte University Center, Room 112

**Incomplete Grade Policy**

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

**Plagiarism**

Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the ASU Writing Center.

**Student Absence for Observance of Religious Holy Days**

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

**Copyright Policy**

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

**Syllabus Changes**

The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement.
It is the student’s responsibility to look for such communications about the course on a daily basis.

**Title IX at Angelo State University**

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

**Online:** [www.angelo.edu/incident-form](http://www.angelo.edu/incident-form)
**Face to face:** Mayer Administration Building, Room 210
**Phone:** 325-942-2022
**Email:** michelle.boone@angelo.edu

*Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).*

For more information about resources related to sexual misconduct, Title IX, or Angelo State’s policy please visit: [www.angelo.edu/title-ix](http://www.angelo.edu/title-ix).

**Student Evaluation of Faculty and Course**

Students in all programs are given the opportunity to evaluate their courses and the faculty who teach them. Evaluations are most helpful when they are honest, fair, constructive, and pertinent to the class, clinical experience, or course. Faculty value student evaluations, and use student suggestions in making modifications in courses, labs and clinical experiences. Angelo State University uses the IDEA (Individual Development and Educational Assessment) system administered through Kansas State University for all course evaluations. The Office of Institutional Research and Assessment administers IDEA for the entire university, online and has established a policy whereby students can complete course evaluations free from coercion.
1. Gaining factual knowledge (terminology, classifications, methods, trends). **Important**
2. Learning fundamental principles, generalizations, or theories. **Essential**
3. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course. **Important**

1. [https://www.angelo.edu/student-handbook/](https://www.angelo.edu/student-handbook/)
2. [https://www.angelo.edu/catalogs/](https://www.angelo.edu/catalogs/)
4. [https://www.angelo.edu/services/disability-services/](https://www.angelo.edu/services/disability-services/)
5. [https://www.angelo.edu/content/files/14197-op-1011-grading-procedures](https://www.angelo.edu/content/files/14197-op-1011-grading-procedures)
7. [https://www.angelo.edu/dept/writing_center/academic_honesty.php](https://www.angelo.edu/dept/writing_center/academic_honesty.php)
8. [https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of](https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of)