ANGelo State University

Generic Bachelor of Science in Health Science Professions

HSP 4337
Statistical Techniques for Health Science Professionals
Spring 2018
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FACULTY
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*or By Appointment

COURSE INFORMATION
Title: Statistical Techniques for Health Science Professionals
Number: HSP 4337
Time and Location: MW & TTh = 11-12:15 (Archer Building)
Credits: Three Semester Credit Hours (3-0-0)
Pre-requisites/Co-requisites: None

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.

HSP PROGRAM MISSION & GOALS
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

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Assignment(s) or activity(ies) validating outcome achievement:</th>
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<tbody>
<tr>
<td>1. Understand statistical concepts utilized in research within the social sciences</td>
<td>Lectures, Homework, Quizzes and Exams</td>
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<td>2. Apply the mathematical/statistical techniques presented for social science research</td>
<td>Lectures, Homework, Quizzes and Exams</td>
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<td>3. Demonstrate an ability to analyze and interpret data within the social sciences</td>
<td>Lectures, Homework, Quizzes and Exams</td>
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<td>4. Analyze practical examples as to when statistical techniques presented are appropriate methods for analysis.</td>
<td>Lectures, Homework, Quizzes and Exams</td>
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COURSE FORMAT & TEACHING STRATEGIES
This course will meet on campus. Most content will be delivered via class Lecture/Video, Discussion and Course Assignments. The course will also use the Blackboard Learning Management System for online components. The course site can be accessed at http://blackboard.angelo.edu
REQUIRED TEXTS AND MATERIALS
- A free and open companion website for this textbook is available to help you study. This site, at edge.sagepub.com/salkind6e, includes the data sets for the exercises in the book, as well as practice quizzes, flashcards, videos, and journal articles.

OTHER REQUIRED MATERIALS
- Computer with MAC or Windows Operating System
- High Speed Internet Access
- Ethernet Cable

TECHNICAL ASSISTANCE
- **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

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 = 450-500 points
- B = 400-449 points
- C = 350-399 points
- D = 300-349
- F = 0-299 *(Grades are not rounded up under ANY circumstances)*

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. Homework</td>
<td>125 Points (4 Assignments) (25%)</td>
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<tr>
<td>2. Quizzes</td>
<td>100 Points (4 Quizzes) (20%)</td>
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<td>3. Exams</td>
<td>275 Points (2 Exams) (55%)</td>
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<td>Midterm = 125 points</td>
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<td>Final = 150 points</td>
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**TOTAL COURSE GRADE** 500 points total
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. **Readings:** 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.

2. **Exams:** One mid-term exam and one final exam 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.

3. **Quizzes:** Four 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. **Homework:** Students will be responsible for the completion of four homework assignments. The purpose of the assignment is to assist students in applying their understanding of the statistical procedures discussed in class as to well as to provide an opportunity for students to respond to the readings.

GENERAL POLICIES RELATED TO THIS COURSE

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

- ASU Undergraduate Catalog located on the ASU website [https://www.angelo.edu/content/files/16795-201213-undergraduate-catalog](https://www.angelo.edu/content/files/16795-201213-undergraduate-catalog)

STUDENT RESPONSIBILITY & ATTENDANCE

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.

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.

PRE-REQUISITE 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 RamPort. The ASU Undergraduate/Graduate Student Handbook should be reviewed before taking this course.

BROWSER COMPATIBILITY CHECK
It is the student’s responsibility to ensure that the browser used to access course material on his/her computer is compatible with ASU’s Blackboard Learning System. The faculty reserve the right to deny additional access to course assignments lost due to compatibility issues. Students are responsible for reviewing the guidelines posted in this course regarding accessing Blackboard assignments. Problems in this area need to be discussed with faculty at the time of occurrence, either via a phone call (preferred) during posted acceptable hours for calling, or via email notification during times outside those posted for calls.

Be sure to perform a browser test. Select the “Support” tab from the Blackboard homepage (http://www.blackboard.angelo.edu) Select “Test your Browser” option.

ASSIGNMENT SUBMISSION
In this class, all assignments need to be submitted through the Assignments link in the Blackboard course site. This is for grading 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. 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 in weekly modules. The week begins on Tuesday and ends on Monday. 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.

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

The Department of Physical Therapy adheres to the academic honesty statement as set forth in the Angelo State University Student Handbook (2011-2012) http://www.angelo.edu/student-handbook/code-of-student-conduct/misconduct.php. The University "faculty expects all students to engage in all academic pursuits in a manner that is above reproach and to maintain complete honesty and integrity in the academic experience both in and out of the classroom setting and 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, plagiarism, collusion, and the abuse of resource materials."

PLAGIARISM
Plagiarism at ASU is a serious topic. The Angelo State University’s Honor Code gives specific details on plagiarism and what it encompasses. 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. We use the APA Style Manual of the American Psychological Association as a guide for all writing.
assignments. Quotes should be used sparingly. 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 via Bb Safe Assignment or Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center [http://www.angelo.edu/dept/writing_center/academic_honesty.php](http://www.angelo.edu/dept/writing_center/academic_honesty.php).

**STUDENTS WITH DISABILITIES**

1. “Angelo State University 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 Act of 2008 (ADAAA), and subsequent legislation.”

2. The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting the Office of Student Affairs, University Center, Room 112 at (325) 942-2047 or (325) 942-2211 (TDD/FAX) or by e-mail at studentservices@angelo.edu to begin the process. The Office of Student Affairs will establish the particular documentation requirements necessary for the various types of disabilities.

Reasonable accommodations will be made for students determined to be disabled or who have documented disabilities.

**INCOMPLETE GRADE POLICY (OP 10.11 Grading Procedures)**

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.

**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.” Please see ASU Operating Policy 10.19.

**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.

**COURSE EVALUATION**

Students are provided the opportunity, and are strongly encouraged to participate in a course evaluation at the end of the semester. Areas on the IDEA evaluation include:

1. Gaining factual knowledge (terminology, classifications, methods, trends). **Important**
2. Learning fundamental principles, generalizations, or theories. **Important**
3. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course. **Important**