MATH 1342 – D40 – Elementary Statistics – Spring 2021

Contact Information:

- Instructor: Jesse Taylor
- Office: MCS 219E
- Email: jesse.taylor@angelo.edu
- Our Classroom: Online (except for tests)
- Meeting Times: Online (except for tests, which are Tuesdays 5:30pm-6:45pm)
- Office Hours:
  - Due to COVID-19, all office hours will be held virtually this semester using Blackboard Collaborate.
  - 2:00pm – 4:00pm on Mondays and Wednesdays
  - 10:00am – 11:00am on Tuesdays and Thursdays
  - 12:15pm – 1:00pm on Tuesdays and Thursdays
  - Other times available by appointment (email me to set something up)

Required Textbook


Course Content

Selected sections from chapters 1-12 will be covered.

Blackboard

All the instructional material for our course can be found in Blackboard and through MyStatLab (more information below). You will need to use both these resources and the textbook for every section we cover. Make sure you read the instructions in Blackboard for each section before you begin studying that section. All the general information about our course is here in the syllabus and on Blackboard.

Homework

All homework in this class will be done online using MyStatLab (with access through Blackboard). To register, go to Blackboard and click the link titled “Homework Information” in the navigation menu. There is a flyer there with explicit instructions for how to register.

You will also need an access code, which should have come with your textbook. If you do not have an access code, you can purchase one online through the MyStatLab website. We will have homework assignments from each section covered in the textbook.

Please do not wait until the last minute to complete your homework assignments. Technology-based systems are sometimes unavailable and **no late homework will be accepted**. In general, homework will be due on Mondays, Wednesdays, and Fridays by 11:59pm.
Quizzes

In addition to homework, we will have weekly “check-in” quizzes beginning in week 2. These quizzes are not computational. They are writing assignments designed to let you reflect and give feedback about what has been going well and what has been going poorly. These quizzes will be taken in Blackboard and are located in the “Quizzes” section of the Blackboard navigation menu.

Tests

We will have three tests and a cumulative final exam. Although the course is an online course, all our exams will be taken in person in the math and computer science building on the campus of Angelo State University. Below is a table containing a schedule for the tests. If you have a conflict with one of the tests you must let me know at least one week before the test is taken to ensure that you receive a make-up exam. The earlier you let me know, the better.

<table>
<thead>
<tr>
<th>Test</th>
<th>Material Covered</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>Chapters 1, 2, 3, and 4</td>
<td>Tuesday, February 23</td>
</tr>
<tr>
<td>Test 2</td>
<td>Chapters 5, 6, 7, and 8</td>
<td>Tuesday, March 23</td>
</tr>
<tr>
<td>Test 3</td>
<td>Chapters 9, 10, 11, and 12</td>
<td>Tuesday, April 27</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Cumulative</td>
<td>6:00pm-8:00pm, Tues May 11</td>
</tr>
</tbody>
</table>

It is expected that you will take your tests in person. However, in the event that you need to take a test online (for health reasons, quarantining, a campus shutdown, etc) you will need to do so using Respondus Lockdown Browser and must be video recorded via Respondus Monitor. Respondus requires a desktop computer or laptop (not a Chromebook) and a webcam. It is your responsibility to get this equipment if you need it. For best results, use an ethernet cable to connect to your Internet source instead of relying on Wifi (there are ethernet ports available to students in the campus library, for instance, or on your home router). There are instructions linked in the Blackboard course for Respondus (how to install, what to expect, etc).

Grading

Your grade in this class will be determined based on the following grading rubric.

- Homework/Quizzes: 15%
- The three regular exams: 20% each
- Final Exam: 25%

Your final letter grade in this class will be determined based on a ten-point grading scale.
Calculator
You will need a calculator for this class. Many of the calculations we will do are much too complex to do by hand. You may use any calculator for our class as long as it is not Bluetooth or WiFi enabled. The calculator I recommend is the Texas Instruments TI-30X IIS scientific calculator as it is inexpensive and robust, however you may use any calculator that cannot share files wirelessly.

Note that although a calculator is allowed, there will be many problems this semester for which you are required to show work. In these instances, it is not enough to say “I typed it into my calculator.” Please keep this in mind as you work through the material. A calculator is a good tool, but it is not a substitute for understanding the material.

Technology
Unless you have special accommodations documented with the Student Life office, no cell phones, tablets, laptops, games, or other electronic devices may be used at any time during in-person class.

If ASU has to move to all online delivery due to a COVID-19 outbreak
In the event that ASU is forced to move online due to a COVID-19 outbreak, all lectures will be given as video recordings posted to our Blackboard course. Homework will remain unchanged and will still be submitted via Blackboard, and all tests will be taken through Respondus. See the “Tests” section of the syllabus for more information regarding Respondus.

Study Aids

- The Math Lab offers free math help to all students enrolled in mathematics courses at or below the level of Calculus. The Math Lab is located on the third floor of the library (C302) and its times are listed below.
  - Monday – Thursday: 9:00am – 8:00pm
  - Friday: 9:00am – 12:00pm
  - Sunday: 4:00pm – 8:00pm
- The mathematics department maintains a list of students who are interested in tutoring privately. Students who are interested in obtaining private tutoring or serving as private tutors should visit the math department’s office for more information.
- Feel free to contact me for help. I will host virtual office hours regularly and am also available for one-on-one meetings if you have questions or want to discuss anything.
Mathematics 1342 – Elementary Statistics

Student Learning Outcomes

1. **Students will demonstrate factual knowledge including the mathematical notation and terminology used in this course.** Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in statistics including definitions of measures of central tendency; standard deviation; standardized variable; regression line; coefficient of determination; normally distributed variable; sampling distribution of the mean; sampling distribution of the proportion; point estimate; confidence interval estimate; null hypothesis; alternative hypothesis; critical value; and test statistic.

2. **Students will describe the fundamental principles including the laws and theorems arising from concepts covered in this course.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, calculation of measures of central tendency; standard deviations; coefficients of determination; critical values and test statistics.

3. **Students will apply course material along with procedures and techniques covered in this course to solve problems.** Students will use the facts, formulas, and techniques learned in this course to find regression equations for data collected; use regression equations to make predictions; calculate probabilities; find confidence intervals for means and proportions; and perform a variety of hypothesis tests.
4. **Students will develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields.** Students will acquire a level of proficiency in the fundamental concepts and applications necessary for further study in academic areas requiring statistics as a prerequisite, or for work in occupational fields requiring a background in statistics. These fields might include education, business, finance, marketing, computer science, physical sciences, and nursing, as well as further study in other statistics courses.

**Textbook**


**Course Content**

The following chapters including the particular sections listed are covered.

1. **The Nature of Statistics.** Classifying statistical studies; sampling procedures.

2. **Organizing Data.** Grouping data; graphs and charts; distribution shapes; misleading graphs.

3. **Descriptive Measures.** Mean; median; mode; standard deviation; quartiles; percentiles; deciles; boxplots.

4. **Descriptive Methods in Regression and Correlation.** Regression equation; coefficient of determination; linear correlation.

5. **Probability and Random Variables.** Rules of probability; discrete random variables; probability distributions.

6. **The Normal Distribution.** Areas under the standard normal curve; normally distributed variables.

7. **The Sampling Distribution of the Mean.** Sampling error; mean and standard deviation of the sampling distribution of the mean.

8. **Confidence Intervals for One Population Mean.** Calculate confidence intervals for the mean; margin of error; sample size.

9. **Hypothesis Tests for One Population Mean.** Set up hypothesis tests; errors; perform hypothesis tests.

10. **Inferences for Population Proportions.** Calculating confidence intervals for one population proportion; performing hypothesis tests for one population proportion.

11. **Chi-Square Procedures.** Chi-Square Goodness-of-Fit Test.
Anticipated Schedule

Below is a table containing an approximate guide to what we will cover during each week of the semester. These topics are subject to change.

<table>
<thead>
<tr>
<th>Course Week</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and Chapter 1</td>
</tr>
<tr>
<td>2</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>3</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>4</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>5</td>
<td>Chater 5 and Test 1</td>
</tr>
<tr>
<td>6</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>7</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>8</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>9</td>
<td>Test 2</td>
</tr>
<tr>
<td>10</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>11</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>12</td>
<td>Chapter 11</td>
</tr>
<tr>
<td>13</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>14</td>
<td>Test 3</td>
</tr>
<tr>
<td>15</td>
<td>Review</td>
</tr>
<tr>
<td>16</td>
<td>Final Exam, 6:00pm-8:00pm, Tuesday May 11</td>
</tr>
</tbody>
</table>
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

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 Science and Engineering 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 Services website. 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.
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.

Title IX at Angelo State University
The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Miller, J.D.
Special Assistant to the President and Title IX Coordinator
Mayer Administration Building, Room 210
325-486-6357
michelle.boone@angelo.edu

You may also file a report online 24/7.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information, visit the Title IX website.

Required Use of Masks/Facial Coverings by Students
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.
Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

i https://www.angelo.edu/current-students/student-handbook/
ii https://www.angelo.edu/academics/catalog/
iii https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96
iv https://www.angelo.edu/current-students/disability-services/
vi https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
vi https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of
vii http://www.angelo.edu/incident-form
viii https://www.angelo.edu/title-ix
ix http://www.texastech.edu/downloads/ttus-policy-face-coverings.pdf