TEXARKANA COLLEGE

Syllabus: Elementary Statistical Methods-Dual Credit
Course Number: Math 1442
Semester & Year: WEB
Instructor Information

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Student Learning Outcomes for the Course

Upon completion of this course students should be able to:

1. Explain the use of data collection and statistics as a tool to reach reasonable conclusions.
2. Recognize, examine, and interpret the basic principles of describing and presenting data.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
4. Explain the role of probability in statistics.
5. Examine, analyze, and compare various sampling distributions for both discrete and continuous random variables.
6. Describe and compute confidence interval.
7. Perform hypothesis testing using statistical methods.
8. Solve linear regression and correlation problems.

Textbook/Supply Information

> Textbook: not required

> Title: Beginning Statistics + Integrated Review, 3e

> Author: Warren, Denley, Atchley

> Publisher: Hawkes Learning

> Website: **http://learn.hawkeslearning.com**

> The Hawkes Learning software is a required component of this course. You will use Hawkes to complete and submit your homework, which accounts for **15%** of your grade, and tests, which account for **85%** of your grade.

> An Access Code registered in your name is required to use the software. Do not purchase your materials from an online vendor (other than Hawkes) or another student. These Access Codes may be already registered to another student, making them unusable.

> This access code can be purchased in the TC bookstore (ask for it at the front counter) or online through the Hawkes website: ISBN 978-1-64277-281-4

> See the attachment for detailed instructions on enrolling in Hawkes Learning.

We are using a Mastery based approach in this course.
You must complete all homework assignments for each test to be able to open the test.

HOW TO USE HAWKES

Each lesson of the software offers three modes:

1. Learn is an interactive presentation of the material found in your textbook and includes instructional video clips and example problems.

2. Practice gives you access to unlimited practice problems, provides error-specific feedback for commonly made mistakes, hints for all incorrect answers, and includes an interactive Tutor with Step-by-Step guidance and fully worked out solutions. Note that every question type from Certify can be found in the Practice mode.

3. Certify is the homework portion of the lesson. After answering the set of questions, without exceeding available strikes (or lives), you will receive a perfect 100% score for your homework. If you are not able to Certify in your attempt, you are able to start a new set of questions over again with no penalty.
   In the meantime, you may wish to spend more time in the Practice mode before attempting Certify again. You have unlimited attempts in each homework lesson. All assignments (except tests) are due at 11:59 pm on the Sunday night shown in the schedule and in Hawkes Learning. Tests time deadlines are consistent with the closing time of the Testing Center.
   Additional videos can be found at **www.hawkestv.com**.

   GETTING HELP

   Contact Hawkes with any technical questions, including creating your username and password, finding your Access Code or license number, or completing your work.

   Phone support is available Monday-Friday, from 8:00am-10:00pm ET. Chat support is

   available 24/7. Phone: 1.800.426.9538
   Email: support@hawkeslearning.com
   Chat: **www.hawkeslearning.com/chat**

Your grade in this course will be assessed through homework (Certify in Hawkes) and major tests **(in Hawkes)**. There will be 6 major tests:
   Test 1: Chapters 1 – 3
   Test 2: Chapter 4
   *Test 3: Chapter: 5
   *Test 4: Chapters: 6 and 7
   Test 5: Chapters 8 & 10
   Test 6: Chapter 12

*While administered as two separate exams, a weighted average of these exams will be used to calculate your final grade. Due to this discrepancy, your grade in Hawkes will be slightly different than your official grade in MyTC.

Class Schedule (A detailed schedule with all due dates will be provided to you in a separate document.)

Week	Section	Title
1		Enroll in Hawkes
	1.1	Getting Started (10)
	1.2	Data Classification (15)
	1.3	The Process of a Statistical Study-Sampling Methods (20)
2	2.1	Frequency Distributions (10)
	2.2	Graphical Displays of Data (10)
	2.3	Analyzing Graphs-Shapes of Graphs (15)
3	3.1	Measures of Center (10}
	3.2	Measures of Dispersion (10)
	3.3	Measures of Relative Position (15)
4	4.1	Introduction to Probability (15)
	4.2	Addition Rules for Probability (15)
	4.3	Multiplication Rules for Probability (15)
5	4.4	Combinations and Permutations (15)
	4.5	Combining Probability and Counting Techniques (10)
	5.1	Discrete Random Variables (15)
6	5.2	Binomial Distribution (15)
	5.3	Poisson Distribution (10)
	5.4	Hypergeometric Distribution (10)
7	6.1	Introduction to the Normal Distribution (15)
	6.2	The Standard Normal Distribution (15)
	6.3	Finding Probability Using a Normal Distribution (10)
8	6.4	Finding Values of a Normally Distributed Random Variable (10)
	6.5	Approximating a Binomial Distribution Using a Normal Distribution (15)
	7.1	Sampling Distributions and the Central Limit Theorem (10)
9	7.2	Central Limit Theorem with Means (15)
	7.3	Central Limit Theorem with Proportions (15)

	8.1	Estimating Population Means (σ Known) (15)
10	8.2	Student's t-Distribution (15)
	8.3	Estimating Population Means (σ Unknown) (15)
	8.4	Estimating Population Proportions (15)
	8.5	Estimating Population Variances (15)
11	10.1	Fundamentals of Hypothesis Testing (20)
	10.2	Hypothesis Testing for Population Means (σ Known) (15)
	10.3	Hypothesis Testing for Population Means (σ Unknown) (10)
12	10.4	Hypothesis Testing for Population Proportions (10)
	10.5	Hypothesis Testing for Population Variances (5)
	10.6	Chi-Square Test for Goodness of Fit (5)
13	12.1	Scatter Plots and Correlation (15)
	12.2	Linear Regression (10)
	12.3	Regression Analysis (5)
14		TEST 6: Chapter 12
		Optional Retest

All major tests will be taken through Hawkes Learning in the classroom.
Information about testing will be provided in your detailed class schedule in a separate document.

Student Assessment
Your final grade will be determined by the corresponding percentages.
      (1) Homework   15%
      (2) Chapter Tests   85%

Final Grade = 0.15*homework average + 0.85*chapter test average

Grading Scale: The following scale will be used to assign a letter grade for this course.
An average of 70 or better is required for credit.

Grade				
A	**B**	**C**	**D**	**F**
90-100	80-89	70-79	60-69	59-below

Tests: You may take a test **only** after all Certifies have been earned for that test.
NOTE: Certifies completed after their due date earn no credit and do not apply towards attendance but will allow you to access the practice test and the actual test.
Certifies and Practice Tests are due at 11:59 pm on the date indicated in Hawkes Learning.

A practice test will be provided for each exam. You will have unlimited attempts at the practice test. These scores will not be included in your final grade.

Five bonus points will be awarded on each exam for those scoring an 80% or better on any attempt at the practice test.

All tests will be administered through Hawkes Learning during your regularly scheduled class meetings. All formulas and tables needed for each exam can be accessed through Moodle in the Resources section for each test.

NOTE: You only have **one** attempt on each test.

> **Calculators** will be allowed on all course work. A TI-84+ or TI-83+ is HIGHLY recommended.

Make-up Policy

You will be allowed to take one exam late during the semester. If you miss any of the first 5 tests (this does not include Chapter 12), you may request a late exam under the following conditions.

> (1) Within 24 hours of the test deadline expiring, you submit an email request for late testing. Your subject line should read: Request for Delayed Testing. You must include a short paragraph explaining why you missed the test and what you will do in the future to avoid a repeat occurrence.
>
> (2) Once you have received a confirmation reply from me, you will complete the practice test for that chapter(s) and must score 70%. This must be done regardless of any score previously submitted for that assignment. You will be given 3-4 days to complete this task.
>
> (3) The test will then be taken. (At most, you will get one additional week on this material.)

NOTE: This is a one-time only offer. Any additional missed tests will be recorded as a zero with no option to make it up. (Remember each missed exam will lower your average by 17 points.)

For those who do not miss any of the first five exams but are unhappy with a score, you will have the opportunity to retake one exam. By Monday, April 29, **you must email me indicating which test you wish to take so I can open it for you.** I will email you back when it is ready. You will receive the higher of the two scores for the exam. The deadline for submitting this retest is 5:00 pm on Wednesday, May 8.

NOTE: This option is not open to those who have already done a late test. It is **your responsibility** to initiate this process. This opportunity is not available on the final exam of the semester (Chapter 12). As you can see, it will be much easier to take each test when it is assigned.

Any test missed will be recorded as a zero.

Any student missing 2 major tests may be dropped from the course.

Students **may** have the homework/test due dates extended for excused absences. (See Excused Absences under Attendance Policy)

Important Class Information READ THIS!!!!!

Homework assignments must be completed by the due date @ 11:59pm of each week they are assigned for credit. Assignments turned in after the due date will be recorded as a zero. Students have **unlimited** attempts to complete each assignment before each due date. After 3 attempts, select "similar exercise" for a new question. You can keep doing this as long as you would like until the due date, or the desired mastery is achieved.

You may take a chapter test as soon as you have completed all prerequisite assignments. You do not have to wait until the due date to take your test. Tests are located under the WEB TEST tab in Hawkes Learning. The practice test score does not apply to your overall average but indicates what you can expect to make on the real test. The questions on the practice test are similar to those on the real test.

*All due dates are final so please don't ask for extra time. It is your responsibility to make sure your work is completed, and tests are taken by the due date.

<u>Calculators</u> will be allowed on any course work. A TI-84 or TI-83 is HIGHLY recommended.

Correspondence from the instructor may be given through the student's Texarkana College email account. Please check your email regularly for updates and announcements.

A student may be <u>**dropped**</u> from this course for any of the following reasons:
  (1) Missing **2** major tests (You will not be able to pass the course with two zeros for test grades!)
  (2) Missing **10** homework assignments
  (3) Missing **3** weeks of class

  (3) Any breach of conduct (see Student Handbook)

Cheating is prohibited. Anyone caught cheating on an assignment or test will have earned an' F' for the semester OR you may be dropped from the course. Use of ChatGPT or other Ai programs or apps may be considered cheating.

Absentee Policy
Texarkana College's absentee policy allows instructors to withdraw a student from a course due to excessive absences. If a student leaves and returns during class or leaves the class before the class is over, he/she **may** be considered absent. Three tardies constitute one absence.
Faculty members **are not** obligated to provide opportunities for students to make-up missed assignments and tests because of a student's absence from class. The institution is required to take attendance except for workforce/vocational areas, where certification requirements require taking attendance. However, experience demonstrates that regular attendance enhances academic success. As such, students are expected to attend each meeting of their registered courses.
A student should not stop attending a class without formally withdrawing from the course by the institutions published Last Day for Students to Drop. If a student stops attending class after the published Last Day for Students to Drop, the student **may** receive a grade of "F" in the class. The instructor will submit the last date of attendance for students receiving a grade of "F" or "W".
Withdrawal from a course(s) **may** affect a student's current or future financial aid eligibility. Students should consult the Financial Aid Office to learn both short- and long-term consequences of a withdrawal.

Online/Hybrid Course Absences
Absence in an **online course** is defined as the lack of an active post or submission within the course including discussion board posts, written assignments, and tests. This standard will be used to determine all absentee issues, including but not limited to, 12th Day Census Reports, last date of attendance, and involuntary withdrawal from a course due to absences. All online students must complete an Enrollment Verification activity within the first week of class (activity depends upon the professor); otherwise, the professor **may** drop the student for not having attended. Students must complete at least one activity(Certify) in their online class per week. Each week in which a student does not complete an activity will be counted as an absence.
If a student is taking a hybrid course, and it does not meet during the first week of class, the student must also complete an Enrollment Verification activity within the first week of class; otherwise, the student **may** be dropped for not having attended.

Excused Absences
A student's absence due to school trips and/or school business will not be counted against a student's allowable number of absences. Military duty and absences for Holy Days (FBD LEGAL) are covered in a separate section of the catalog and the student handbook. These are the only excused absences that are considered by Texarkana College. Responsibility for work missed for any absence is placed on the student. Instructors are required to allow students to make up work missed if the absence is due to military duty* or religious holy days when students follow the correct notification procedures. Instructors are not required to allow students to make up work for absences due to other reasons.
Students interested in Health Occupations should check with the division chair prior to entering the program.

Maximum Allowable Absences
After official registration, the following number of unexcused absences will be the maximum allowable before a student **may** be dropped from the class. For a three hour Online Academic class, an instructor may withdraw a student from a course if they exceed 2 absences.

Academic Integrity Statement
Scholastic dishonesty, involving but not limited to cheating on a test, plagiarism, collusion, or falsification of records will make the student liable for disciplinary action after being investigated by the Dean of Students. Proven violations of this nature will result in the student being dropped from the class with an "F".

This policy applies campus wide, including TC Testing Center, as well as off-campus classroom or lab sites, including dual credit campuses. This information can be found in the Student Handbook at
https://texarkanacollege.edu.
Use of ChatGPT or other AI programs or apps may be considered academic dishonesty and may result in a drop from the course with an 'F'.

Disability Act Statement:
Texarkana College complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. Please contact Tonja Blasé at 903.823.3349, or go by the Recruitment, Advisement, and Retention Department located in the Administration building for personal assistance.

If you have an accommodation letter from their office indicating that you have a disability which requires academic accommodations, please present it to me so we can discuss the accommodations that you might need for this class. *It is best to request these changes at the beginning if not before the start of class* so there is ample time to make the accommodations.

Financial Aid:
Attention! Dropping this class may affect your funding in a negative way! You could owe money to the college and/or federal government. Please check with the Financial Aid office before making a decision.

Free Tutoring @ Texarkana College:
https://texarkanacollege.libcal.com/

Computer Requirement Policy:

Students are required to have a computer with Internet access for classes. The computer must be an actual computer – smart phones, iPads, Androids, Chromebooks, etc., are not acceptable substitutes because they lack software compatibility necessary to complete all assignments and tests. Financial costs for the necessary equipment and internet access are the responsibility of the student.

Students needing to purchase a computer may do so through the Texarkana College Bookstore. Systems purchased through the bookstore meet or exceed all requirements, are competitively priced, and may be purchased using financial aid funds. If the system is purchased through another source, it is the student's responsibility to ensure the system meets all requirements.

Computer systems requirements:
- Webcam, microphone, and speakers or headphones
- Windows 10 or a recent version of Mac OS (minimum Sierra). Windows 10 S mode is not supported
- Hardware capable of running Microsoft Teams (free download) and supports multi-media playback
- Support for Chrome or Microsoft Edge – Note: Firefox, Safari, or other browsers may not work on all TC applications
- Able to run Microsoft Office which will be provided free to TC students
- Adobe Reader or another PDF viewer
- Antivirus software such as Windows Defender or another 3rd party anti-virus solution
- The Respondus Lockdown browser maybe used for taking tests; therefore, the system must be capable of running this software. Most newer systems that meet other specifications should work.
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Students should regularly backup content to prevent loss of coursework due to hardware failure. Backup copies of documents and other coursework may be placed on OneDrive cloud storage. OneDrive is included free of charge for all TC students.

A list of Internet service providers can be found on the TC website at:
https://www.texarkanacollege.edu/coronavirus/.

Alternate Operations Due to Campus Closure
In the event of an emergency or announced campus closure due to a natural disaster or pandemic, Texarkana College may need to move to altered operations and course delivery methods. During this time, Texarkana College may opt to continue delivery of instruction through methods that include but are not limited to: online learning management system (Jenzabar or Moodle), online conferencing through TEAMS, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor Texarkana College's website (www.texarkanacollege.edu) for instructions about continuing courses remotely, instructor email notifications on the method of delivery and course-specific communication, and Texarkana College email notifications for important general information.

Online math classes can be very challenging, so I encourage you to work hard and don't wait until the last day to do your assignments. It is A LOT of work, but you can be successful!!

Any student who has difficulty affording groceries or accessing enough food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in this course or ability to remain in school, is urged to contact Tonja Blasé, Director of Student Retention, at 903-823-3349 for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

The instructor reserves the right to amend the syllabus and class schedule as needed.