1 Course Information

- Meeting Time & Place:
  - Lecture: MWF 12:00-12:50, ST 104
  - Labs:
    * 1442.221: T 1:00-2:50, CI 222
    * 1442.222: W 1:00-2:50, CI 223
    * 1442.223: Th 1:00-2:50, CI 223
    * 1442.224: Th 3:30-5:20, CI 223

- Professor: Dr. Blair Sterba-Boatwright
- Office Phone: 825-2724
- Office Address: CI 306
- E-mail Addresses: blair.sterbaboatwright@tamucc.edu
- Web Page Address: [www.sci.tamucc.edu/~sterba/f10/1442/calendar.htm](http://www.sci.tamucc.edu/~sterba/f10/1442/calendar.htm)
- Office Hours: TBA; other times by appointment.

2 Course Description

This is an introduction to statistical methods used in the physical, life and social sciences. Topics covered include: Statistical Thinking, Descriptive Statistics, Sampling & Data Collection, The Normal Distribution, Confidence Intervals, Hypothesis Testing, Correlation & Simple Linear Regression, Categorical Data Analysis, ANOVA

3 Prerequisites for the Course

Math 1314 or placement beyond college algebra.
4 Textbook and Supplies

Required

  
  - earlier editions also OK; electronic version available with MyMathLab OK


- MyMathLab access kit is required for homework and quizzes. I will discuss this the first day of class.

- A calculator is required for every quiz and examination. A TI-83/84 calculator or similar is recommended.

Optional

- Minitab software will be provided in the Lab and need not be purchased unless you intend to work on labs at home.

- There is a Minitab manual (not the Minitab Manual required on the Lab) online at: [http://www.minitab.com/support/docs/rel14/MeetMinitab14.pdf](http://www.minitab.com/support/docs/rel14/MeetMinitab14.pdf)

5 Student Learning Objectives

- Students will be able to use descriptive statistics and graphical exploration to summarize key features of experimental data.

- Students will be able to perform elementary probability calculations, primarily with the normal distribution.

- Students will be able to state, understand the importance of, and apply the Central Limit Theorem to experimental data.

- Students will be able to perform hypothesis tests of the following forms: one and two sample *t*-tests, ANOVA, and linear regression.

- Students will be able to analyze an experimental situation to determine appropriate statistical analyses.

- Students will be able to interpret the results of all calculations and statistical tests in the context of the experiments that generate that data, and will be able to express these interpretations clearly in writing.

- Students will be able to use appropriate technology tools to perform needed calculations and tests.
6 Instructional Methods and Activities

Methods for instruction include the following:

- Lecture
- Demonstrations
- Use of computer resources, including statistical software, spreadsheets, and the Internet for data location, data organization, and data analysis

7 Evaluation and Grade Assignment

Methods of evaluation and the criteria for grade assignments are as follows:

<table>
<thead>
<tr>
<th>Type of Assignment</th>
<th>Weighting in Final Grade</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>10%</td>
<td>Homework is online on the MyMathLab system. It will be assigned regularly and is due as specified. No late homework will be accepted unless there is a valid excuse.</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
<td>Quizzes are also online with MyMathLab. They will occur approximately at the end of every chapter.</td>
</tr>
<tr>
<td>Labs</td>
<td>20%</td>
<td>Grading policies for labs will be covered with your TA’s</td>
</tr>
<tr>
<td>Three semester tests</td>
<td>20% each</td>
<td>Tests are in class, on paper. You may use your class notes. I will provide any necessary tables. The first two tests are currently scheduled to be Wednesday, Sept. 28, and Wednesday, Nov. 2. The third test will be given during the Final Exam period, which is Monday, Dec. 12, from 11:00-1:30.</td>
</tr>
</tbody>
</table>

Based on the above, grades will be assigned according to the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>Below 60</td>
</tr>
</tbody>
</table>

8 Tentative Schedule

TBA on the course Blackboard site.
9 Class Policies

- Attendance at lectures is optional. However, I will take roll each day and use it as the third of four tiebreakers for borderline grades. Do NOT assume perfect attendance will miraculously help your grade.

- If you are unable to attend a test and you wish to make it up, I need to hear from you no later than 24 hours after the missed test. You should be able to provide adequate documentation of why your absence was necessary. If you wait more than 24 hours to contact me, you will also need to provide adequate documentation of why you were unable to meet the 24-hour deadline. As an example, “I was called out of town unexpectedly on business” might be a valid reason to miss a test, but it is not an adequate reason to miss the 24-hour notification requirement.

- A grade of I (Incomplete) will only be given in exceptional circumstances, such as a death in the family or personal injury that might prevent someone from taking the final test. In this case, it is the responsibility of the student to notify me as soon as possible, preferably by e-mail, and to complete the required "Incomplete Form" available from the University Registrar. If this is not done, a score of 0% will be assigned for any incomplete tests and a final grade will be computed using the criteria described above.

- University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a grade of 0% on that assignment or test.

- Although obviously I hope all goes smoothly for you this semester, events can sometimes occur that make dropping a course necessary or wise. I encourage you to consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Friday, November 4, is the last day to drop a class with an automatic grade of “W” this term.

10 Legal Statements

Disabilities Accommodations

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.
If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

Grade Appeals
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.