I. Course Information

- Meeting Time & Place: ST-104, TR, 5:30-6:45 PM
- Professor: Joseph Champine
- Office Phone: (361) 825-2439
- Office Address: CI 308
- E-MAIL Address: joseph.champine@tamucc.edu
- Office Hours:
  - TR: 4:45-5:30
  - Others by appointment

II. 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.

III. Prerequisites for the Course

Math 1314 or placement beyond college algebra.

IV. Required Textbook and Supplies

  - Earlier edition also OK, electronic version available with MyLabsPlus OK
- MyLabsPlus access kit is required for homework and quizzes. I will discuss it during the first day of classes. This system is available at tamucc.mylabsplus.com
- 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:
V. 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.

VI. 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.

VII. Evaluation and Grade Assignment

Final course standing will be based upon homework, quizzes, two tests during the semester, lab points and a final test each weighted as follows:

Homework- 15%  Quizzes – 10%  Lab Section – 15%  Two exams- 20%  Final Exam – 20% each

Homework and quizzes are available online through the MyLabsPlus system. Grading policies on lab will be covered by your lab assistant. The lowest score of one of the two tests administered during the semester will be replaced by the score on the final test, provided that the final test score is better than one of the semester test scores. The final test score will not be replaced by the semester test scores. Two semester tests will be administered on paper during class time. Final exam will be administered during the final exam period as scheduled.

Grading Scale:

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

A – 90%–100%  B - 80%–89.99%  C – 70%–79.99%  D – 60%–69.99%  F - below 60%
VIII. Tentative Schedule

Jan. 12: Chapter 1: Types of Data
Aug. 26: Chapter 1 cont., Chapter 2: Experimental Design and Graphical Displays
Aug. 30-Sept. 1: Chapter 2 cont., Chapter 3: Statistical Graphs and Numerical Summaries
Sept. 6-8: Chapter 3 cont., Chapter 4: Exploratory Data Analysis and Probability
Sept. 13-15: Chapter 4 cont., Chapter 5: Counting Principles and Probability Distributions
Sept. 20-22: Chapter 5 cont., Test 1: Binomial Distributions and Midterm 1
Sept. 27-29: Chapter 6: Normal Distributions
Oct. 4-6: Chapter 6 cont., Chapter 7: Central Limit Theorem and Confidence Intervals
Oct. 11-13: Chapter 7 cont., Chapter 8: Hypothesis Testing
Oct. 18-20: Chapter cont.: Population means and variances
Oct. 25-27: Review and Test 2
Nov. 1-3: Chapter 9: Inference for Two Samples
Nov. 8-10: Chapter 9 cont., Chapter 10: Matched Pairs and Regression
Nov. 15-17: Chapter 10 cont., Chapter 11: Contingency Tables
Nov. 22: Chapter 12: ANOVA
Nov. 24: Thanksgiving holiday
Nov. 29: Chapter 12 cont.
Dec. 1: Review for Final
Dec. 6: Review for Final
Final Exam: December 8, 4:30 p.m.

Mr. Champine will be working closely and staying on pace with Dr. Guardiola. Dr. Guardiola has a site set up with his tentative schedule and links to assignments, lab homeworks, and other resources. The link is www.sci.tamucc.edu/~jguardiola, then follow the MATH 1442 link.

IX. Class Policies

- Homework is assigned online regularly through MyLabsPlus that can be accessed at tamucc.mylabsplus.com (it requires to buy an access code) and due as specified. No late homework will be accepted unless there is a valid excuse. If you have problems to access the system you have to let me know as soon as possible.
- There is an online quiz immediately after each chapter is finished.
- Two semester tests will be administered in class on Wednesday, February 16th, and Wednesday, March 30th. These dates may be changed with due notice announced during class time. You are allowed to bring in one page of notes, written or typed on both sides on a sheet not larger than 8.5”x11”. Your name should be written in the top of the page in large and clear letters. Pages of notes and/or calculators can not be shared. Cell phones cannot be used as calculators. If an extra credit work is assigned, or extra points are given, the total score should not exceed 100%. No points will be “saved” toward the next examination.
- **There will be no makeup for a missed semester test.** If a semester test is missed, its score will be replaced by the score on the final exam. The opposite is not true. A missed final exam will result in a score of 0 points.
- Final exam will be administered on December 8, 2011. It is a comprehensive examination over all material covered during the semester. You will be allowed to bring in two pages of notes following the same format described above.
- Attendance will be taken each class. Talking during class time and tardiness are often disruptive to the whole class and are not appreciated. If you are delayed and arrived late please do so quietly. Excessive tardiness, disruptive talking, disruptive behavior or performing activities not related to the class will be counted as absences and may cancel bonus points for attendance. Cell phones and such must be turned off before class. According to the proportion of times you attend class you may earn up to 5 points extra credit for your course grade. The instructor is NOT responsible for
informing absent students what was covered in previous classes, homework or any other announcements.

- A grade of 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 exam. In this case, it is the responsibility of the student to notify me as soon as possible, preferably by email, and to fill the required "Incomplete Form" available from the University Registrar. If this is not done, a score of 0% will be assigned for any incomplete exams and a final grade will be computed using the criteria described above.

- Please check carefully the date and time of the tests as I cannot change them for any other reasons not considered truly exceptional, that is; beyond the control of the student.

- 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, April 1st, is the last day to drop a class with an automatic grade of “W” this term. I cannot personally assign a grade of W.

- The instructor reserves the right to make changes to the above with due notice to the students. These changes will be announced in class and each student is responsible for keeping herself/himself informed of such changes.

X. 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.