Texas A&M University – Corpus Christi
MATH 1442.W01
Statistics for Life
Course Syllabus
Spring 2015

I. Course Information

- Meeting Time & Place: Online
- Professor: Dr. Jose Guardiola
- Office Phone: 825-5544
- Office Address: CI 309
- E-MAIL Address: jose.guardiola@tamucc.edu
- Web Page Address: http://www.sci.tamucc.edu/~jguardiola
- Office Hours: TR: 3:20 -5:20 pm, F 9:00-10:00 am other times 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, Basic Probability Concepts, Sampling & Data Collection, The Normal Distribution, Confidence Intervals, Hypothesis Testing, Correlation & Simple Linear Regression, Categorical Data Analysis, ANOVA.

III. Prerequisites for the Course

MATH 0399 or placement beyond MATH 0399; also non-remedial status in Reading and Writing as determined by placement testing or THEA.

IV. Required Textbook and Supplies

- MyLabsPlus access kit is required for homework and quizzes. You will need to purchase an access code, either through the campus bookstore or directly from the publisher. Historically, the publisher has been less expensive, I recommend checking both sources before buying. I will discuss how you access and use MyLabsPlus during the first class meeting. An electronic version of the textbook, Elementary Statistics by Mario F. Triola, 12th edition, is included inside the MyLabsPlus system.
- You will be required to access the TAMU-CC Blackboard system at <bb9.tamucc.edu>. If you do not have access to Blackboard, please contact the Help Desk (see <it.tamucc.edu> for contact info) to obtain access as soon as possible.
- The lab manual for the lab portion of this class will be provided online using Blackboard.
- A calculator is required for every quiz and examination. A TI-83/84 calculator or similar is recommended but not required (it may make this class more manageable).

Optional

JMP software (JMP Pro®, Version 10.0.0, Copyright © 2012 SAS Institute Inc., Cary, NC) will be provided online and does not need be purchased. There is a user guide at http://www.jmp.com/support/help/
I also recommend looking at the tutorials available at the help menu in JMP.

V. Student Learning Objectives

By the end of this course:

1. Students will be able to use descriptive statistics and graphical exploration to summarize key features of data.
2. Students will be able to perform elementary probability calculations, primarily with the normal distribution and including applications of the Central Limit Theorem.
3. Students will be able to calculate confidence intervals and perform hypothesis tests of the following forms: one and two sample t-tests, Chi-square test, ANOVA, and linear regression.
4. Students will be able to determine an appropriate statistical analysis, given data and a research question.
5. Students will be able to interpret the results of all calculations and statistical tests in the context of the processes that generate that data, and will be able to express these interpretations clearly in writing.
6. 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:
- Material provided online, documents, videos.
- Online demonstrations, applets and participation in discussions.
- 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 homework, discussions and a final test each weighted as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Lab Section</td>
<td>15%</td>
</tr>
<tr>
<td>Two semester tests</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Discussions</td>
<td>10%</td>
</tr>
</tbody>
</table>

More detailed information about these assignments is in the Class Policies section below.

Grading Scale:

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90%-100%</td>
</tr>
<tr>
<td>B</td>
<td>80%-89.99%</td>
</tr>
<tr>
<td>C</td>
<td>70%-79.99%</td>
</tr>
<tr>
<td>D</td>
<td>60%-69.99%</td>
</tr>
<tr>
<td>F</td>
<td>below 60%</td>
</tr>
</tbody>
</table>

VIII. Tentative Schedule

A schedule for the course is posted on the course Blackboard page.
IX. Class Policies

- Two semester tests will be administered on Tuesday, February 24th, and Tuesday April 7th. If extra points are given for any reason, the total score should not exceed 100%. No points will be “saved” toward the next examination.
- If one semester test is missed for any reason, its score will be replaced by the score on the final exam. The opposite is not true. A missed final exam will result on a score of 0 points. If a second semester test is missed, a grade of zero will be assigned unless there is a valid excuse sent to me within 24 hours of the exam date. The score of one semester test will be replaced by the score on the final test, provided that the final exam score is better than the semester test score. The final test score will not be replaced by any of the semester tests scores.
- The final exam will be administered on Friday May 8th, from 2:00 to 4:30 pm in a place to be arranged. It is a comprehensive examination over all material covered during this course. You will be allowed to bring in two pages of notes written or printed on both sides, not larger than 8 ½” x 11” (A4), with your name in big letters written at the top. For students that are out of town (more than 200 miles away from Texas A&M Corpus Christi) the final exam can also be administered electronically and proctored at an approved institution on the scheduled date (some fees may apply), if that is your case, please send me an email and make be ready to make arrangements with an approved institution at least a month earlier (Usually a Kaplan Center).
- 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, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) For the complete statement, see http://catalog.tamucc.edu/content.php?catoid=10&navoid=313%23Academic_Integrity#Academic _Honesty
- 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. Please check the date with your academic advisor for dropping a class without penalties. 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 CCH 116B.

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 (College of Science and Engineering Version)

As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, 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 Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage ([http://sci.tamucc.edu/students/GradeAppeal.html](http://sci.tamucc.edu/students/GradeAppeal.html)). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.