Texas A&M University – Corpus Christi
MATH 1442.001
Statistics for Life
Course Syllabus
Summer 2015

I. Course Information

- Meeting Time & Place: CI-108, TR, 12:00 - 2:30 pm
- 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: MW: 12:45 -1:45 pm, TR 10:50-11:50 am; Other 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 11.2.0, Copyright © 2013 SAS Institute Inc., Cary, NC) will be provided in the Lab and does not need be purchased unless you intend to work on labs at home.
There is a user guide at [http://www.jmp.com/support/help/](http://www.jmp.com/support/help/). I also recommend 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:

- 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, one midterm test during the summer session, lab points 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>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</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.

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

**VIII. Tentative Schedule**

A schedule for the course is posted on the course Blackboard page.

**IX. Class Policies**

- Two semester tests will be administered in class on Thursday, June 18\textsuperscript{th} and Tuesday, July 7\textsuperscript{th}. 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 cannot 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 one of the semester tests 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 on a score of 0 points. 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.

- Final exam will be administered on Wednesday, July 22nd from 10:00 am to 12:30 pm (classroom # to be announced before the final exam). 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. 95% attendance or more will result in 3% as bonus points added to your total score at the end of the semester that usually is helpful to determine borderline grades. 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.

- **Special note about schedule conflicts:** Please notice that this course extends well into the summer II session. If you are registered to take courses during the summer II session please check for possible schedule conflicts during summer II session as in the past the scheduling system did not impede you to register in courses with a schedule conflict. I strongly suggest that you avoid such schedule conflicts. If you insist on taking both courses with a schedule conflict please notice that you assume full responsibility as there will not be a special treatment for students registered on such courses.

- 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. 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, and the College of Science and Engineering Grade Appeals webpage (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.