MATH-1442-003
Statistics for Life
Department of Mathematics and Statistics
SPRING 2016

A. COURSE INFORMATION
Course number/section: MATH-1442-003
Class meeting time: MWF 9:00–9:50 AM
Class location: CI-138
Course Website: www.bb9.tamucc.edu

B. INSTRUCTOR INFORMATION
Instructor: NENE COULIBALY
Office location: EN-314D
Office hours: MW 2:00 – 3:15 PM & TR 11:00 – 12:15 PM
Telephone: 361-825-2219
E-mail: Nene.Coulibaly@tamucc.edu
Appointments: To schedule an appointment, please email me in advance.

C. 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, and ANOVA.

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

E. REQUIRED TEXTBOOK(S), READINGS 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.

**Optional Textbook(s) or Other References**


  JMP software (JMP Pro®, Version 10.0.0, Copyright © 2012 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/.

- I also recommend the tutorials available at the help menu in JMP.

**Supplies**

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).

## F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to:

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.

G. 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.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Final course standing will be based upon several homework, quizzes, two semester tests, labs and a final test.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Exams</td>
<td>40</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10</td>
</tr>
<tr>
<td>Homework</td>
<td>15</td>
</tr>
<tr>
<td>Labs</td>
<td>15</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
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</tbody>
</table>

Final grades will be assigned as follows

<table>
<thead>
<tr>
<th>Weighted average in %</th>
<th>LETTER GRADE</th>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
</tr>
<tr>
<td>80 – 89.99</td>
<td>B</td>
</tr>
<tr>
<td>70 -79.99</td>
<td>C</td>
</tr>
<tr>
<td>60 – 69.99</td>
<td>D</td>
</tr>
<tr>
<td>Bellow 60</td>
<td>F</td>
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</tbody>
</table>
I. COURSE CONTENT/SCHEDULE

- See the class Blackboard page for more details.

<table>
<thead>
<tr>
<th>DATE (BY DAY OR WEEK)</th>
<th>TOPIC</th>
<th>CHAPTER(S)</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 7 Feb 29 – Mar 6</td>
<td>TEST# 1 (Monday thru Friday)</td>
<td>Chapter 1 through Chapter 5</td>
<td>See MyLabsPlus</td>
</tr>
<tr>
<td>Week 12 April 4th – 10th</td>
<td>TEST# 2 (Monday thru Friday)</td>
<td>Chapter 6 through Chapter 8</td>
<td>See MyLabsPlus</td>
</tr>
<tr>
<td>Friday, April 8th</td>
<td>Deadline for Dropping a Course with a Grade of W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 5th - 11th</td>
<td>Final Exam (Thursday – Wednesday)</td>
<td>Comprehensive exam (covers all the materials we cover during the semester)</td>
<td>See MyLabsPlus</td>
</tr>
</tbody>
</table>

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

Attendance/Tardiness
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 arrive late please do so quietly. Excessive tardiness, disruptive talking, disruptive behavior or performing activities not related to the class will be counted as absences. The instructor is NOT responsible for informing absent students what was covered in previous classes, homework or any other announcements.

Extra Credit
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.

Cell Phone Use
Cell phone using is prohibited in any circumstances. Students using their cell phones in class will be asked to leave the class and will be counted as absent for that day.

Laptop Use
Students are welcome to use their laptops in class only if it is intended for learning purposes like log in to the class blackboard page, or MyLabsPlus website.
Missed Exam
There will be no makeup for a missed semester test unless for special circumstances.
A missed final exam will result on a score of 0 points.

Participation
Students are encouraged to participate in class discussions and problem solving skills.

Others
- Students are expected to read the PowerPoints materials in Blackboard, view videos and other multimedia available in MyLabsPlus, and work assignments before the due dates.
- Homework is assigned online regularly through MyLabsPlus that can be accessed at tamucc.mylabsplus.com (you need to buy an access code) and due as specified. Late homework will result a 20% deduction for every question not done on time. 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, be sure to check the due dates.
- Two semester tests will be administered during your Lab times. The week will be announced in class and posted on Blackboard under Class Schedule. 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.
- The final exam will be a comprehensive examination over all material covered during the semester. It will also be administered during your Lab times. You will be allowed to bring in two pages of notes following the same format described above. Absolutely no early final examination, so make travel arrangements accordingly. Without taking final exam, it will be an “F” for the semester grade regardless.

K. COLLEGE AND UNIVERSITY POLICIES
- Academic Integrity (University)
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 failing grade.
• Classroom/Professional Behavior
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• Deadline for Dropping a Course with a Grade of W (University)
The grade of W will be assigned to any student officially dropping a course by Friday, April 8, 2016. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

• Grade Appeals (College of Science and Engineering)
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 at 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.

- **Disability Services**
  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 (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116. 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.
  http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**L. OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

- **Help: CASA** has many quality tutors to help you while you need someone beside my office hours. Welcome to visit those tutors at the second floor of library. Please find out their schedule first before
you make a plan to go for this semester. I will be happy to work with you anytime during my office hours and also email me for your special needs. Good luck to everyone in the class.

- Students are expected to attend each class meeting.
- Students are expected to purchase the MyMathLab access code before the temporary access expires.
- Students are expected to work on homework outside of class.
- Students are expected to keep all worked problems in a notebook or binder in an organized format.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.