### Probability and Statistics Math 453 Summer 1 2016

**Instructor:** Dr. V. Huse Office (903) 875-7652 Fax: (903)872-2019

<u>Office Hours</u> –Online- Tuesday and Thursday from 8:00 p.m. - 10:00 p.m. for Skype and Facetime.

If you can't reach me, leave a message on my voice mail OR better yet, send me an **e-mail**: <a href="mailto:Vanessa.Huse@tamuc.edu">Vanessa.Huse@tamuc.edu</a>. This is the official email for this course and all students must use it for communications.

**Text:** Probability and Statistics – Mendenhall - 14th edition

ISBN 9781133103752

**Necessary Materials:** A graphing calculator

## **Course Content:**

#### The student should know and understand at the end of this course how to:

- 1. investigate and answer questions by collecting, organizing and displaying data from real world situations,
- 2. support arguments, make predictions and draw conclusions using summary statistics and graphs to analyze and interpret one variable data
- 3. communicate the results of a statistical investigation using appropriate language
- 4. investigate real world problems by designing, conducting, administrating, analyzing and interpreting surveys and statistical experiments
- 5. use the concepts and principles of probability to describe the outcome of simple and compound events
- 6. explore concepts of probability through data collection, experiments and simulations
- 7. generate, simulate and use probability models to represent a situation
- 8. use the graph of the normal distribution as a basis for making inferences about a population
- 9. develop and justify concepts and measures of central tendency and dispersion and use those measures to describe a set of data
- 10. calculate and interpret percentiles and quartiles
- 11. explore, describe and analyze bivariate data using techniques such as scatter plots, regression lines, correlation coefficients and residual analysis
- 12. explain and use precise probability language to make observations and draw conclusions from single variable data and to describe the level of confidence in the conclusion
- 13. determine probability of construction sample spaces to model situations
- make inferences about population using the binomial and geometric distributions

The goal of this course is to develop *understanding* of the mathematics. We are constantly going to be dealing with *WHY* more than *HOW*. We will focus on underlying structures and development of ideas. In addition, problem solving is a major component of this course. As professionals, you need to become familiar with and skilled in various types of problem solving techniques that are commonly used in mathematical thinking.

<u>Make-ups:</u> No make-ups for the Midterm will be given, the final will count 70% of your grade.

<u>Course Grading</u>: Will be based on Research Projects, a Midterm Exam, Homework, Discussion Boards and a Final Exam.

| Major Research Projects – | 10% |
|---------------------------|-----|
| Discussion Boards-        | 10% |
| Homework-                 | 10% |
| Midterm Exam-             | 35% |
| Final –                   | 35% |

### TECHNOLOGY REQUIREMENTS

Internet access (high-speed preferred)

Word processing software (Microsoft Word preferred)

As a student enrolled at Texas A&M University-Commerce, you have access to an email account via myLeo - all my emails sent from eCollege (and all other university emails) will go to this account, so please be sure to check it regularly.

### **ACCESS AND NAVIGATION**

#### **Access and Log in Information**

This course will be utilizing eCollege to enhance the learning experience, eCollege is the Learning Management System used by Texas A&M University-Commerce.

You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000.

#### **COMMUNICATION AND SUPPORT**

Texas A&M University-Commerce provides students technical support in the use of eCollege. The student help desk may be reached by the following means 24 hours a day, seven days a week. If you experience issues while taking your exams or at any other point, feel free to contact the support desk.

**Phone:** 1-866-656-5511 (Toll Free) to speak with eCollege Technical Support Representative.

- Email: helpdesk@online.tamuc.org to initiate a support request with eCollege Technical Support Representative.
- **Help:** Click on the 'Help' button on the toolbar for information regarding working with eCollege

#### COURSE AND UNIVERSITY PROCEDURES/POLICIES

#### **Attendance**

It is the prerogative of the instructor to drop students from courses in which they have accrued excessive absences (three or more). However, a student wishing to drop the course should do so. Failure to do so may result in a failing grade. Attendance is strongly encouraged for your own benefit. Any work missed due to your absence is your responsibility and should be made up as soon as possible. Attendance in an online course will be observed by login into the course. Three weeks without a login will be considered excessive absences.

**Cheating:** Cheating of any kind will result is an F for the term. All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student's Guide Handbook, Policies and Procedures, Conduct)

## **Academic Honesty Policy**

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

Disciplinary action for these offenses may include any combination of the following:

- 1. Point deduction on an assignment.
- 2. Failure for an assignment.
- 3. A grade of zero for an assignment.
- 4. Failure for the course.
- 5. Referral to the Academic Integrity Committee or department head for further action.
- 6. Referral to the Dean of the College of Education and Human Services, Business and Technology, Arts and Sciences, or Graduate School as appropriate.
- 7. Referral to the University Discipline Committee.
- 8. Communication of student's behavior to the Teacher Certification Office and/or Dean of the College of Education as constituting a reason to bar student from entering into or continuing in a teacher certification program. Procedures, A 13.04, 13.12, 13.31, and 13.32

#### ADA Statement

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 have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148

Student Disability Services @ tamu-commerce.edu Student Disability Resources & Services

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## **COURSE OUTLINE / CALENDAR**

The course calendar is in eCollege listed by week. Assignments will be opened on Monday, Wednesday and Friday of each week. You will have two days to complete each assignment which is due at midnight. Testing for the midterm and final will be face-to-face, which means in person. Tests will be given in Commerce and Corsicana. Dates and times are listed below. If you are a student out of the State, please email me for instructions for testing.

# **Course Exams:**

Midterm

Corsicana – June 22, 4:00 – 6:00

Commerce- June 20, 4:00 – 6:00

Final Exam

Corsicana – July 6, 4:00 – 6:00

Commerce- July 5, 4:00 – 6:00