MATH 502 01W: MATHEMATICAL STATISTICS
Spring 2018

CONTACT INFORMATION:

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Office Hours	: TR 1:00-1:50p (online), otherwise by appointment

DESCRIPTION and POLICIES:

1. Class Schedule: Online (Section 01W)
   Office hours will be held online at times indicated above via the Adobe Connect website: `http://connect.tamuc.edu/coskun`. Students will have access to this discussion room as a **guest** without an account. Please join office hours conveniently scheduled twice a week for all questions.

2. Textbook: **Statistical Inference** by Casella, C., and Berger, R. (2nd edition, ISBN-13: 978-0534243128, ISBN-10: 0534243126)
   simpleR: Using R for Introductory Statistics by Verzani, J., a free online text available at CRAN, the Comprehensive R Archive Network website.

3. Website & Internet: An **eCollege website** is created for the course which may be accessed from student myLEO accounts following the eCollege and then **My Courses** tabs. All files and documents, lecture notes and outlines, links to any video content, and software modules that the instructor shares with the class will be posted in the Doc Sharing folder in the course website. All material posted or shared at the course website is **copyrighted** ©. You are allowed to retain one copy of each file for your personal use, but the files should not be distributed in any form without instructor's written consent.

4. Course Description: Probability, distributions, moments, point estimation, maximum likelihood estimators, interval estimators, test of hypothesis. **Prerequisites** Math 501.

5. Software: The **R software** is required for the course. It will be used extensively for manipulating data and carrying out computations in classroom discussions as well as homework exercises and projects. R is a free software environment for statistical computing and graphics that may be **downloaded** at the CRAN website. There are several platforms that integrate R software such as R Link, and R Studio that we will use. A free version of the R Studio may be download at their website.

6. Tests & Projects: There will be **two exams/projects**, one midterm and one comprehensive final. Each test will consists **two parts**: a written part, and a take home part. The written tests must be taken in a **certified testing center** on the exam date listed below. Students should register with a testing center and forward the contact information to the instructor at least one week before the test dates. No make up test will be given without an official, written, university accepted excuse. The student must contact the instructor the next working day and present the documented excuse to make up a test.

7. Tentative Exam Schedule:

Midterm	200 pts	Monday March 19, 2018
Final	200 pts	Monday May 7, 2018

8. Homework: Homework will be assigned in **every class** meeting on a regular basis. Selected assignments and problems will be graded, but all homework problems should be worked out. The assignments will be turned **electronically** (in form of a notebook) by due dates listed on the lecture outlines in the Dropbox for that week at the eCollege course website. You may work in groups unless otherwise instructed, however the work you turn in must be your own. **Late homework** is not accepted. Homework score makes **50 points** of the total semester grade.

9. Learning Outcomes: Students who complete this course successfully will
a) learn the **terminology** of classical probability theory including discrete and continuous random variables and expectation, and sampling distributions;
b) learn the **methods** employed in solving problems in these topics;
c) learn the **applications** of the theoretical methods to practical problems.

10. Tentative Course Outline: We cover **all or certain parts of these topics** from the first five chapters of the textbook as time permits.

    1. Chapter 5: Random Samples (Week 1, 2)
    2. Chapter 6: Data Reduction (Weeks 2)
    3. Chapter 7: Point Estimation (Weeks 3, 4, 5, 6)
    4. Chapter 8: Hypothesis Testing (Weeks 7, 8, 9, 10)
    5. Chapter 9: Interval Estimation (Weeks 10, 11, 12)
    6. Chapter 10: (Weeks 12, 13)

11. Grading Scale: All scores will be added and a **letter grade** will be assigned according to the following table.

    A 406 - 450 pts
    B 361 - 405 pts
    C 316 - 360 pts
    D 271 - 315 pts
    F 0 - 270 pts

12. Miscellaneous: Your enrollment in this course indicates that **you agree to observe** all the conditions and regulations of this syllabus and the Student Handbook. The test and homework scores may be filed to be used anonymously for educational research.

    It is the **student's responsibility** to secure the software licenses if any, and other resources (such as a personal computer with proper operating system to run the software, broadband internet access, etc.) to be able to complete and communicate all assignments, tests and projects to the instructor as required. The access information to Library resources, and **Help Desk** for technical support are available through the eCollege website. You should contact the community forums and/or **technical support lines** for all installation, licensing, and other technical questions about the software.

    Policies pertaining to scholastic dishonesty are identical to TAMU-Commerce regulations given in the **Student Handbook**, available online at the university website (click here). 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). Disruptive behavior and scholastic dishonesty in any form will not be tolerated.

    Campus Concealed Carry Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a **concealed handgun** in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in **restricted locations**. For a list of locations, please refer to the policy (click here) at the university website, and/or consult your event organizer. Pursuant to PC 46.035, the **open carrying of handguns is prohibited** on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 911.

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, Room 162, Phone: (903) 886-5150 or (903) 886-5835, Email: `StudentDisabilityServices@tamuc.edu`, or Fax: (903) 468-8148.

Nondiscrimination notice: Texas 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.

Any **possible changes** to be made in this syllabus by the instructor during the semester will be announced by email.