Math 4213: Mathematical Statistics
Section 01, Fall Semester 2015

Instructor: Fengrong Wei
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Class Time and Place: Monday and Wednesday, 2:00pm-3:20pm.
Office Hours in office: Monday and Wednesday: 10:30pm-12:10pm, 3:20pm-5:30pm
or by appointment.
Any change in office hours will be notified in CourseDen.
Hours Credit: 3 hours

Prerequisites: MATH 4203 Minimum Grade: C

Texts:
- Textbook: Mathematical Statistics with Application. by Irwin Miller, Manyles Miller. 7th ed.

Courses Description: A continuation of MATH 4203, including sampling distributions, estimation, hypothesis testing, regression, analysis of variance and nonparametric tests.

Topics: Sampling distributions, various hypothesis testing scenarios will be looked at. Introduction to concepts of efficiency, consistency, sufficiency and robustness will be considered. Also regression and correlation and simple design of experiments methods will be studied.

Learning Outcomes: Upon successful completion of this course, the students will be familiar with various hypothesis testing scenarios. The knowledge of the sampling distributions will help in understanding Design of Experiments. Students will be able to apply regression techniques to various problems. Important concepts in point estimation will also be covered.

Communications with Professor:
- Students should check their UWG email accounts on a daily basis. As UWG e-mail is the official means of communication, only UWG issued e-mail addresses will be answered by Professor. CourseDen email is not utilized by the Professor (neither read nor answered).
- Please contact me directly through my UWG email (fwei@westga.edu) for anything that is confidential or private. All e-mails to the Professor are to be sent to fwei@westga.edu. If you would like to ask questions via email, please make sure you use MATH4833 as the subject line, so that I recognize that it is from one of you, and so that my spam filter do not accidentally delete your message. Emails will be answered within hours if not immediately. Although attempts will be made to reply as quickly as possible, you should not assume that all the emails sent after 10:00 PM or over the weekend will be replied on the same day. I REPLY TO ALL EMAILS. IF YOU DO NOT GET A REPLY WITHIN A 24-HOUR PERIOD, ASSUME I DID NOT RECEIVE IT AND PLEASE RESEND.
- Students with any kind of disability are encouraged to contact me at the beginning of the semester so that I can make appropriate arrangements with Disability Services.
• You can come and meet me during my office hours or by appointment in my office (Boyd 222). Please feel free to come and talk to me about any problems related to the course.

Homework, Examinations and Grading:

• Homework: Homework is assigned after each section, but are not to be turned in and graded. Homework problems are meant to reflect the sort of questions you can expect in tests and final exam. Problems are selected from Textbook. Some or all of the homework will be discussed in class.

• Tests: There will be three 80-minute exams worth 50 points each. Tests dates are:
  Test 1, Sep 23
  Test 2, Oct 21
  Test 3, Nov 18
  Any change in exam time will be notified in CourseDen.

• Final: A comprehensive exam worths 100 points.  Note: Final exam is Monday, 2pm-4:30pm, Dec 7, 2015.

  5% Attendance  5pts  
  70% Tests  70pts  
  25% Final  25pts
  Total  100pts

Grades will be assessed using the standard decade scale: 90-100=A, 80-89.999=B, 70-79.999=C, 60-69.999=D, <60=F.

Graded Assignment Rules:

1. There is NO make up Test. In order to take a makeup test, you must have a valid, documented reason for missing it. If it is possible, you must let me know before you miss the test. In the event of an emergency or illness on the day of the test, you must contact me on the day of the test. All the makeup tests should be taken within one week from the original date. There is NO make up Final Exam.

2. I expect you to finish graded assignments on time. I do not offer partial credit, so you only have one chance of submitting the assignment correctly. Failing to do so will result in a zero on the assignment.

3. Students are responsible to find out about any changes in due dates and course content.

4. All work must be done individually by students. Any student caught cheating will receive a failing grade and may be reported to the Office of Student Affairs.

5. Attendance at lectures and participation in class discussions is expected and required. Class attendance will be taken every class. Students are not allowed to come to class late or to leave early. If one has to come to class late or leave early, he/she needs to let me know in advance, otherwise I will give him/her two warnings before lowering his/her grade to the next level. If one misses class for any reason, it is his/her responsibility to get the lecture notes from a classmate. Students are allowed to miss at most 3 classes to get the full 5 points for attendance and will lose 1 points for each additional absence.

Extra Credit: Extra credit, if available at all, will be discretionary on the part of the Instructor, and opportunities will be open to the whole class and not to individual students upon request. Work completed for another course will not be accepted to meet the requirements of this course.

Academic Honesty Policy:
At the University of West Georgia we believe that academic and personal integrity are based upon honesty, trust, fairness, respect and responsibility. Students at West Georgia assume responsibility for upholding the honor code. West Georgia students pledge to refrain from engaging in acts that do not maintain academic and personal integrity. These include, but are not limited to, plagiarism, cheating, fabrication, aid of academic dishonesty, lying, bribery or threats, and stealing.

You are responsible for the safeguarding of your computer account. Your account and network connection are for your individual use. A computer account is to be used only by the person to whom it has been issued. You are responsible for all actions originating through your account or network connection. You must not impersonate others or misrepresent or conceal your identity in electronic messages and actions.

Americans with Disabilities Act: If you are a student who is disabled as defined under the Americans with Disabilities Act and require assistance or support services, The Office of Disability Services will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations. If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, please notify your instructor using the course email system within five business days after the beginning of the course and attach a PDF copy of your Student Accommodations Report (SAR) which is available only from the Office of Disability Services. Accommodation requests require appropriate notice and paperwork.

Academic Grievances: Any student who believes that he or she has been discriminated against because of race, creed, color, sex, sexual orientation, national origin, religion, age, veteran status, or handicapped status should visit Appendix D in the Student Handbook to find the steps needed to be taken to file a claim. This can be found at http://www.westga.edu/handbook/doc/SH-current.pdf.

Student Rights and Responsibilities: Please carefully review the information at the following link: http://www.westga.edu/assets_dept/vpaa/Common_Language_for_Course_Syllabi.pdf. The document at this link contains important information pertaining to your rights and responsibilities in this class. Because these statements are updated as federal, state, university, and accreditation standards change, you should review the information each semester.

Additional Information:

- Distance Learning Student Guide 678-839-6248 http://www.westga.edu/distance/distancestudents/
- http://tinyurl.com/UWGSyllabusPolicies

Proposed sections covered:
Chapter 8: Sampling Distributions
All sections
Chapter 10: Point Estimation
All sections
Chapter 13: Tests of Hypothesis Involving Means, Variances and Proportions
All sections
Chapter 14: Regression and Correlation
14.1 Introduction
14.2 Linear Regression
14.3 The Method of Least Squares
14.4 Normal Regression Analysis (if time permits)
14.5 Normal Correlation Analysis (if time permits)
Chapter 15: Design and Analysis of Experiments
15.1 Introduction
15.2 One-Way Designs
15.3 Randomized-Block Designs
15.4 Factorial Experiments (if time permits)
Chapter 16: Nonparametric Tests
All sections