

MAT 305-Statistical Methods—Spring 2009 Syllabus

I. Basic Information

3 hours credit

Prerequisites: MAT 208-Statistics, or equivalent

II. Course Professor

Professor: Dr. Troy Riggs

Office: C-57

Phone: 661-5257

Email: triggs@uu.edu

Office Hours: TBA

III. Course Description & Objectives

This course covers the common parametric and non-parametric statistical methods with an emphasis on applications. Topics include one- and two-sample inference, correlation and regression, analysis of variance, contingency tables, applications of the Chi-square and F distributions, and various distribution-free methods.

IV. Method of Instruction

Lecture/discussion is the primary method of instruction.

V. Required Text & Supplies

Probability and Statistics for Engineers, 7th Ed., Richard A. Johnson, Prentice Hall Inc.
A hand-held calculator with a two-variable statistical mode is also required.

Minicomputers such as the TI-89, TI-92 and Voyage 200 are not permitted. The instructor reserves the right to clear the calculator memory before quizzes or tests. The use of cell phones, head phones and similar technology during class is not permitted. You may make audio recordings of lectures, if you desire.

VI. Method of Evaluation

There will be three chapter tests. Each of these tests will contribute 100 points. Written work, including quizzes, selected problems from the textbook exercises and Excel assignments, will contribute 100 points. A paper covering a topic (or aspects of a topic) not discussed in class will contribute 50 points. A comprehensive final exam will be given according to the university's final exam schedule, and this exam will count for 150 points. Additionally, a penalty will be assessed for not meeting the requirements listed in Paragraph 2 of Section VII, below. Grades will be determined according to the scale: A-90% (excellent), B-80% (good), C-70% (satisfactory), D-60% (less than satisfactory), F-below 60% (failure).

One or two scores will be dropped in the grade calculation for the written work. *Late work will not be accepted.*

VII. Attendance & Participation

Regular attendance and class participation is expected of all students. Any student who misses class an excessive number of times will be reported to the Academic Center. Please note that all students are expected to be on time for class.

Either immediately before class, or during the first three minutes of class, students will put solutions to the last textbook assignment up on the board. Each student is expected to put up at least 6 problems during the course (no more than one per day). No two students may put up the same problem. If a student fails to meet this requirement, then $\frac{1}{2}$ of a letter grade will be deducted from the student's final course grade.

Any student who misses a chapter test must bring a written explanation of the reason for the absence and supporting documents (for example, a note from a physician). Make-up exams are at the professor's discretion. If you anticipate a serious conflict with a chapter test, let me know well in advance. If circumstances warrant, you will be allowed to take the exam prior to the scheduled time.

VIII. ADA Compliance

In compliance with the Americans with Disabilities Act, appropriate accommodations will be made to meet documented student needs. It may also be advisable for the professor to schedule help sessions with himself and/or other tutors. Please inform the professor about your individual needs immediately following the first class meeting.

IX. Statement on Cheating and Plagiarism

No forms of cheating will be tolerated. If the professor observes cheating by a student during an exam, the student will receive a grade of zero for that exam and a report will be sent to the offices of the Dean of the College of Arts and Sciences and the Provost.

X. Course Outline

- A. Quick review of the binomial and normal distributions, §5.10, Chapter 7, §9.1-9.3
- B. Remainder of Chapters 8-10
- C. Chapters 11 & 12
- D. Select material from Chapters 13 & 14, as time allows.

XI. Showing Work

Answers without arguments are mere opinion. You must show your work to receive full credit. If your answer is incorrect you will receive partial credit based on the work shown.