

MAT 122 Probability and Statistics for the Liberal Arts II

UC Section, TTh 6:30 PM – 8:20 PM

Spring 2013

Instructor: Christa Carsten
Email: cmcarste@syr.edu
Office: 400 Carnegie
Office hours: TBA

Course Description: This is the second course in a two-course sequence. It teaches probability and statistics by focusing on statistical literacy and critical thinking; includes hypothesis testing, correlation and regression, methods of analyzing categorical data, nonparametric statistics, and Markov chains. The sequence MAT 121– MAT 122 can be used to satisfy the quantitative skills requirement of the liberal arts core in the College of Arts and Sciences.

Prerequisites and Restrictions: MAT 121 is a prerequisite for MAT 122. A student cannot receive credit for MAT 122 after completing any MAT course numbered above 180 with a grade of C or better.

Required Texts:

- *Elementary Statistics with Finite Mathematics* by Mario F. Triola, Custom Edition for SU.
- Minitab Workbook for the 11th Ed. of the textbook

Cell Phones: Please turn all cell phones and electronic devices off. NO texting.

Calculator: A basic calculator that can take square roots is required. However, a TI-83/TI-84 is *highly* recommended; these calculators include several statistical tests that can alleviate some of the burden of calculation. Calculators will be allowed for all class work, homework, tests, and quizzes.

Labs: Periodically we will meet in a computer lab to complete statistical exercises and experiments using Minitab software. Dates for labs will be announced in class.

Homework & Quizzes: Homework is for your practice. It will not be collected or graded. However, it is ESSENTIAL you know how to do the problems. Occasional quizzes based on the homework will be given (these will NOT be open book). Suggested homework exercises will be assigned in class.

Exams: There will be four in-class exams and one final exam. The final exam will take place during the week of May 2 – May 8. The time and location of the final exam will be announced in class. All exams will be open book. There will be NO MAKE-UP exams unless in the case of a *documented* emergency. The grade for any exam missed will be replaced with the grade you receive on the final exam.

Exam 1 February 5 (Tuesday)
Exam 2 February 28 (Thursday)
Exam 3 March 28 (Thursday)
Exam 4 April 25 (Thursday)

Grades: Grades will be assigned based on the percentages below:

Exams 1, 2, 3, 4	15% each
Final Exam	20%
Labs & Quizzes	20%

Your course grade can be calculated using the following formula:

$$\text{grade} = [(.15)(Ex1) + (.15)(Ex2) + (.15)(Ex3) + (.15)(Ex4) + (.2)(Final) + (.2)(Lab/Quiz Avg)] * 100$$

Your letter grade is based on the following table of scores:

Letter Grade	Overall Grade	Letter Grade	Overall Grade
A	93 - 100	C+	76 - 79
A-	90 - 92	C	73 - 75
B+	86 - 89	C-	70 - 72
B	83 - 85	D	60 - 69
B-	80 - 82	F	0 - 59

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see <http://academic.integrity.syr.edu>. For this course in particular, failure to obey the rules about what sorts of notes you are allowed to use during exams is considered to be a violation of the academic integrity policy. These rules are found on pages 1 and 6 of the syllabus.

Students with Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

Getting Help: Your instructor will be holding regular office hours and will make appointments with students as necessary. In addition, you are encouraged to use the Math Clinic (a free tutoring service).

Problems/Concerns: Please inform your instructor of any problems or concerns that you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor without delay: Prof. Vincent Fatica, 219A Carnegie, 443-1587, vefatica@syr.edu

Course Goals: By the end of this course you will be able to ...

- Apply hypothesis testing procedures to test various claims
- Know how to find the line “best fitting” a set of points and how it can be used to make predications
- Do basic matrix computations and use them to solve systems of linear equations
- Gain practical experience using Minitab statistical software