SYLLABUS: PROBABILITY AND STATISTICS FOR THE LIBERAL ARTS-II, MAT122-M100

Lecture: Monday-Wednesday-Friday: 9:30-10:25AM, Grant Auditorium.

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Office Hours: Monday-Wednesday-Friday: 10:30-11:30AM or by appointment.

Textbook: Elementary Statistics by Mario F. Triola 11th edition, and the accompanying Minitab Student Laboratory Manual and Workbook for the 11th edition.

Course Description: Second in a two-course sequence (MAT121-MAT122). Teaches probability and statistics focusing on data and reasoning. Includes displaying data, probability models, and distributions.

The sequence MAT121-MAT122 can be used to satisfy the quantitative skills requirement of the liberal arts core in the College of Arts and Sciences.

Course Prerequisites: MAT121 is a prerequisite for MAT122. It is also desirable that students have a reasonable level of competence in high school algebra.

Credit Restrictions: A student cannot receive credit for MAT122 after completing any MAT course numbered above 180 with a grade of C or better.

Computer Labs: When you registered for this course you should have also registered for a recitation section that goes with it. There will be computer lab assignments to be done during these recitation times, which you must hand in to be graded. Please bring your textbook, laboratory manual, and calculator to these recitations.

Homework: Homework is for your practice. It will not be handed in; it will not be graded. Recommended exercises are given later in the syllabus.

Calculator: A fairly sophisticated calculator, in particular the TI-83 claculator, is recommended for this course. Students who already own and know how to use another equivalent calculator are free to use it. Many of

the formulas in MAT 122 are complicated; you should attempt to become proficient at using the calculator. The best way to do that is to bring your calculator to class and get into the habit of doing computations.

Exams: There will be four in-class midterm exams and a final exam.

- **Exam 1:** September 24, 2010.
- **Exam 2:** October 18, 2010.
- **Exam 3:** November 10, 2010.
- **Exam 4:** December 06, 2010.

You should bring your calculator to exams. You may use the textbook during exams. You may also use the textbook's "Formula Card" or an 8-page copy of it (which may have note on the backs of the pages). No other materials will be allowed during exams. In particular, notebooks and collections of index cards are not allowed.

Make-up Exams: There will be no make-ups for the midterm exams or the final. A missed examination counts as a zero unless you present a valid excuse from a physician or the Dean's office. With the written excuse, you may use your score on the relevant portion of the final exam to replace the missed exam.

Grading and Policies: Each of the semester examinations counts for 15% of your course grade. The final examination counts for 20%, with the remaining 20% coming from lab.

The final letter grade will be determined as follows:

Final grade points	Letter grade
93 – 100%	A
90 – 92%	A^-
87 – 89%	B^+
83 – 86%	B
80 – 82%	B^-
77 – 79%	C^+
73 – 76%	C
70 – 72%	C^-
60 – 69%	D
0 – 59%	F

Final Exam: The final examination covers the entire course. The period 8:00 AM-2:30 PM on Wednesday, December 15-2010, is reserved for mathematics courses numbered below 400 (except MAT 275). Your MAT

122 final examination will take place in a two-hour interval within this block. The time and location will be announced in class near the end of the semester. Students must take the final examination during the appointed examination block and, in the absence of a conflict with another exam, at the scheduled time. You should not make plans to leave campus until after 2:30pm on December 15th. The final will not be given at any other time.

Students with Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), (web site: 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.

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://academicintegrity.syr.edu

Learning Outcomes: After successfully completing this course the student should understand what a hypothesis test is and know how to perform numerous different hypothesis tests both parametric and nonparametric. In many cases construction of related confidence intervals will also be learned. The student will also learn to judge which hypothesis test is appropriate for use in which sorts of problems. Also learned will be how to construct the best line through a given set of data points and the construction and interpretation of certain graphs that track a process

over time.

Recommended Exercises: For each section of the text covered, all of the exercises under the "Basic Skills And Concepts" heading are recommended; most of the odd-numbered questions have answers in the back of the book. The student is advised to pay particular attention to those questions which present a story and some observations, and ask for a complete hypothesis test and a conclusion.