# MAT 122 Probability and Statistics for the Liberal Arts II, Spring 2010 Sections 100 (Tuesday – Thursday) and 200 (Monday – Wednesday)

**Course supervisor and instructor:** Professor Vincent E. Fatica, 224 Carnegie, Telephone 443-1587, <a href="mailto:vefatica@syr.edu">vefatica@syr.edu</a>; office hours: to be announced

**Mathematical Prerequisites:** MAT 121 is a prerequisite for MAT 122. It is also desirable that students have a reasonable level of competence in high school algebra.

**Credit Restrictions:** A student cannot receive credit for MAT 122 after completing any MAT course numbered above 180 with a grade of C or better.

**MAT 122 and the Liberal Arts Core:** 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.

**Texts:** Elementary Statistics by Mario F. Triola 11<sup>th</sup> edition and the accompanying Minitab Student Laboratory Manual and Workbook for the 11<sup>th</sup> edition.

**Computer Labs:** When you registered for this course you should have also registered for a recitation section that goes with it. These meet in 100 Carnegie or 115 Physics Bldg. (or perhaps another computer lab, check your schedule to be sure). 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.

**Exams:** You should bring your calculator to exams. You may use the textbook during exams. Your textbook may be embellished with notes which are either written on or attached to the pages of the book. Attachments to the textbook must be modest in size. 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:** No make-up exams will be given. At the discretion of the instructor, the final exam (or the pertinent parts thereof) will be count to replace a missing exam grade.

**Calculator:** Your calculator should be able to take square roots. A fairly sophisticated calculator is recommended. The TI-83 is particularly recommended and will be used by the instructor in class. 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 along with the instructor.

**Calculation of Course Grade**: There are six aspects to grading, four in-class exams, the computer labs, and the final exam. Once those six grades have been converted to percents, your "raw" score for the course will be computed by the formula: raw score = (.15)(test 1) + (.15)(test 2) + (.15)(test 3) + (.15)(test 4) + (.20)(final exam) + (.20)(lab average). The conversion to a letter grade will follow the guidelines below.

Raw score x	Grade	Raw score x	Grade
0 <= x < 60	F	80<=x<83	B-
60<=x<70	D	83<=x<86	В
70<=x<73	C-	86<=x<90	B+
73<=x<76	С	90<=x<93	A-
76<=x<80	C+	93<=x<=100	Α

**Final Exam:** MAT 122 will be assigned a two-hour time slot during final exam period 11. This period is from 8:00am to 2:30pm on Monday, May 10, 2010. The exact time and location for the 2-hour final exam will be announced in lecture near the end of the term. The final exam will not be given at any other time. Therefore, do not make plans to leave campus before the end of period 11.

The final exam will be comprehensive; i.e., it will contain material from all parts of the course.

Students with Disabilities: If you believe that you need accommodations for a disability. please the Office of Disability Services contact 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. 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://academic integrity.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.

## MAT 122 Probability and Statistics for the Liberal Arts II, Spring 2010

## **Exam Dates and Sections Covered**

## **Tuesday – Thursday Classes (Section 100)**

Exam 1: Tuesday, February 9

Sections: 8-2, 8-3, 8-4, 8-5, 8-6

Exam 2: Tuesday, March 2

Sections: 9-2, 9-3, 9-4, 9-5

Exam 3: Tuesday, April 6

Sections: 10-2, 10-3, 11-2, 11-3, 12-2

Exam 4: Tuesday, April 27

Sections: 14-2, 14-3, and selected sections from chapter 13.

Final exam: Monday May 10 (Exam Period 11)

Reminders: No make-up exams

No exceptions to the scheduled final exam date and time

#### **Recommended Exercises**

For each section of the text covered, <u>all</u> of the exercises under the "<u>Basic Skills And Concepts</u>" 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.

## MAT 122 Probability and Statistics for the Liberal Arts II, Spring 2010

## **Exam Dates and Sections Covered**

## Monday - Wednesday Classes (Section 200)

Exam 1: Wednesday, February 10

Sections: 8-2, 8-3, 8-4, 8-5, 8-6

Exam 2: Wednesday, March 3

Sections: 9-2, 9-3, 9-4, 9-5

Exam 3: Wednesday, April 7

Sections: 10-2, 10-3, 11-2, 11-3, 12-2

Exam 4: Wednesday, April 28

Sections: 14-2, 14-3, and selected sections from chapter 13.

Final exam: All Classes: Monday, May 10 (Exam Period 11)

**Reminders:** No make-up exams

No exceptions to the scheduled final exam date and time

#### **Recommended Exercises**

For each section of the text covered, <u>all</u> of the exercises under the "<u>Basic Skills And Concepts</u>" 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.