

MAT 222 Elementary Probability and Statistics II
Fall 2011

Course Description: This is the second course in the probability and statistics sequence, MAT 221-222, designed for most academic majors. The primary objectives of the course are to understand basic concepts of statistical inference and to learn commonly used statistical methods of inference. The course will cover concepts of estimation and hypothesis testing, inferences involving two populations, Chi-square tests, regression analysis, and analysis of variance.

Text: Introduction to the Practice of Statistics, by David S. Moore, George P. McCabe, and B. Craig, 6th Edition. Chapters 6 through 13 will be covered.

Prerequisites: MAT 221

Liberal Arts Core: This course is the second course in the Quantitative Skills sequence MAT 221-222.

Calculators: You will need a calculator to do the computations that will arise throughout the course. No specific calculator is required, but TI 84 or TI 83 graphing calculator is highly recommended.

Cell Phones: All electronic devices other than the calculator should be turned off and put away during class. Calculators on cell phones are not to be used on tests or quizzes.

Grading: There will be three midterm exams and a final exam. The three midterm exams will count 50% and the final will count 25% toward your grade. The remaining 25% will be based on the project, homework, quizzes, or class work at the instructor's discretion. There will be no make-up tests. If you miss a test with a valid excuse, the final will count correspondingly more. Final grades will be given according to the following scale:

| | | | | |
|------------|------------|------------|-----------|------------|
| A (93-100) | A- (90-92) | B+ (87-89) | B (83-86) | B- (80-82) |
| C+ (77-79) | C (73-76) | C- (70-72) | D (60-70) | F (0-59) |

Special Note on the Final Exam: All students must take the final exam at the scheduled time which will be a 2-hour block between 8 am and 2:30 pm on Wednesday, **December 14, 2011**. There will be no exceptions, and so you should not plan to leave campus before 2:30 pm on December 14, 2011.

Homework: Homework assignments are given on an attached page.

Computer Labs: There will be computer lab session(s). The time and place of the lab session(s) will be announced in class. MINITAB, a statistical package, will be introduced and computer problems to use MINITAB will be assigned.

Final Project: Data analysis project will be assigned in the middle of the semester and will be due on the last day of classes. The primary objective of the project is to investigate the problem of your interest using statistical methods learned in the course. You are supposed to design experiments, collect data, analyze data using MINITAB, and to write a report on your analysis.

Academic Honesty: 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>

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 your instructor privately to discuss your academic needs although your instructor may not be able to arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

Faith Tradition Observances: You must notify your instructor by the end of the second week of classes when you will be observing your religious holidays. Then, appropriate accommodation will be made according to the guideline that can be found at http://supolicies.syr.edu/emp_ben/religious_observance.htm.

Course Supervisor: Please inform your instructor of any problems you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor (listed below).

Professor H. Hyune-Ju Kim
304E Carnegie Building
443-1494
email: hjkim@syr.edu

MAT 222 Tentative Schedule (MW Section)

| | Monday | | Wednesday | |
|--|---------------|----------|------------------|------------------|
| August | 29 | 6.1/6.2 | 31 | 6.2/6.3 |
| September | 5 | No Class | 7 | 6.4 |
| | 12 | 7.1 | 14 | 7.1/7.2 |
| | 19 | 7.2 | 21 | Review |
| | 26 | Test 1 | 28 | 8.1 |
| October | 3 | 8.2 | 5 | 9.1 |
| | 10 | 9.2 | 12 | 9.3 |
| | 17 | 10.1 | 19 | 10.2 |
| | 24 | 10.2 | 26 | Review |
| October/November | 31 | Test 2 | 2 | Chap 11 |
| | 7 | Chap 11 | 9 | Chap 12 |
| | 14 | Chap 12 | 16 | Chap 13 |
| | 21 | No Class | 23 | No Class |
| | 28 | Chap 13 | 30 | Review |
| December | 5 | Test 3 | 7 | Review for Final |
| Final Exam (December 14, Wednesday) | | | | |

Important Dates:

| | |
|------------------------|------------------|
| Add Deadline | Tuesday, Sep. 6 |
| Academic Drop Deadline | Tuesday, Oct. 25 |
| Withdrawal Deadline | Friday, Nov. 18 |

MAT 222 Homework Assignments:

Chapter 6

Section 6.1: 6.10, 6.11, 6.12, 6.13, 6.17, 6.19, 6.25, 6.26

Section 6.2: 6.53, 6.56, 6.57, 6.58, 6.59, 6.64, 6.65

Section 6.3: 6.95, 6.96

Section 6.4: 6.112, 6.113, 6.114.

Chapter 7

Section 7.1: 7.15, 7.16, 7.17, 7.18, 7.19, 7.20, 7.21, 7.22, 7.24

Section 7.2: 7.61, 7.62, 7.63, 7.64, 7.65, 7.66, 7.67, 7.68

Section 7.3: 7.98, 7.99, 7.100, 7.101, 7.102, 7.103

Chapter 8

Section 8.1: 8.10, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.19, 8.20

Section 8.2: 8.41, 8.42, 8.44, 8.45, 8.46, 8.49, 8.50, 8.51, 8.52, 8.53.

Chapter 9

Sections 9.1-9.2: 9.7, 9.10, 9.11, 9.12, 9.17, 9.18, 9.19, 9.20, 9.21, 9.26, 9.27, 9.30, 9.31

Section 9.3: 9.40, 9.41, 9.42, 9.43 (MINITAB), 9.44, 9.45 (MINITAB)

Chapter 10

Sections 10.1-10.2: 10.8, 10.9, 10.10 (MINITAB), 10.11, 10.12 (MINITAB), 10.13 (MINITAB), 10.14 (MINITAB), 10.15 (MINITAB), 10.18, 10.23 (MINITAB), 10.24, 10.44, 10.47, 10.48, 10.49.

Chapter 11

Sections 11.1-11.2: 11.7, 11.8, 11.12, 11.13, 11.14, 11.15, 11.16, 11.19, 11.22 (MINITAB), 11.23 (MINITAB), 11.27 (MINITAB), 11.28 (MINITAB), 11.29 (MINITAB), 11.31 (MINITAB), 11.32 (MINITAB), 11.33 (MINITAB).

Chapter 12

Sections 12.1-12.2: 12.9, 12.10, 12.11, 12.12, 12.15, 12.16, 12.17, 12.23, 10.27, 12.38 (MINITAB), 12.39 (MINITAB), 12.51 (MINITAB), 12.52 (MINITAB)

Chapter 13

Sections 13.1-13.2: 13.3, 13.4, 13.5, 13.6, 13.8, 13.13, 13.16, 13.17, 13.18, 13.31 (MINITAB), 13.32 (MINITAB)