MAT 221: Elementary Probability and Statistics I
Summer 2017

Course Description: The primary objective of MAT 221 is to provide students with knowledge of elementary probability and statistics. Students will learn the basic concepts of descriptive statistics, design of experiments, probability theory, sampling distributions, and estimation of parameters. Students continuing to MAT 222 will learn how to use statistics to make various decisions.

Text: *Introduction to the Practice of Statistics* by D. S. Moore, G. P. McCabe, and B.A. Craig, **8th edition**. Chapters 1-6 will be covered in MAT 221.

Prerequisites: Algebra competency.

Liberal Arts Core: This course is the first 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 electronics other than the calculator should be silenced and put away during class. Calculators on cell phones are not to be used on tests or quizzes.

Grading: Your final grade will be based on a midterm exam (20%), a final exam (30%), and quizzes (50%). Final grade 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 (60-69) F (0-59)

Special Note on the Final Exam: All students must take the final exam at the scheduled time which is in class Thursday June 29.

Homework: Homework assignments are given on the attached page. It is expected that you will attempt the homework problems assigned to a section after it is covered in class. It will not be collected, but may be discussed in class or during office hours.

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.

Getting Help: Your instructor will be holding regular office hours and will make appointments with students having class conflicts with their scheduled office hours. In addition, the Mathematics Department offers regular math clinics. Calculators and textbooks may be on reserve in the library. Information can be found online at math.syr.edu.

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

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 cannot 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. Appropriate accommodations will be made according to the guidelines that can be found at http://supolicies.syr.edu/emp_ben/religious_observance.htm.

Learning Goals
Students will be expected to
1. use and understand basic mathematical notations;
2. select and apply an appropriate mathematical model for certain elementary probability problems;
3. do basic hand calculations with accuracy;
4. use appropriate hardware and software related to certain probability distributions.

MAT 221 Tentative Schedule

Weekly dates	Monday	Tuesday	Wednesday	Thursday
5/22-5/25	1.1/1.2	1.2/1.3	1.3/1.4	Chapter1 Review
5/29-6/1	No class Memorial Day	Quiz 1	2.1/2.2/2.3	2.4/2.5/2.7
6/5-6/8	3.1/3.2	3.3/3.4	Review	Midterm Exam
6/12-6/15	4.1/4.2	4.3/4.4	4.5/Chapter 4 Review	Quiz 2
6/19-6/22	5.1	5.2	6.1	6.2
6/26-6/29	6.3	Quiz 3	Review	Final Exam

Important dates:
Memorial Day Holiday- No classes Mon. May 29
Midterm Exam-Thurs. June 8
Final Exam- Thurs. June 29

Instructor:

Section 1 M-Th. 10am-11:45am   120 Carnegie

Kim Severn krtaylor@syr.edu 443-2650

Office Hours M-Th. 11:45-12:45 or by appointment, 305 Carnegie

MAT 221 Suggested Homework Problems

Note that exercises are consecutively numbered in each chapter. These are assigned along with sections of the book. You should work these problems as the corresponding section is covered in class.

Section Problems

1.1: 8, 9, 11a, 14abc
1.2: 25-29, 40-42
1.3: 61, 62, 63abce, 77-79, 81, 82, 91-93
1.4: 110, 111, 118-124, 128-131, 134-142, 144-146, 148-150

2.1: 5, 6
2.2: 18, 22, 24, 25, 28, 31
2.3: 41, 43, 46, 50, 60
2.4: 73-75, 78bc, 84b, 85
2.5: 103-105
2.7: 138-141

3.1: 15, 16
3.2: 25-27, 33, 34
3.3: 56, 57, 63, 72
3.4: 82, 90, 91, 92

4.1: 2, 4, 6
4.2: 20, 23-25, 27-30, 32-39, 42-45
4.3: 53, 57-61, 65, 66
4.4: 74-82, 87, 90, 92, 93
4.5: 102-128, 131

5.1: 9-11, 14-20, 22, 25-29
5.2: 47-55, 59, 61, 63, 68, 71

6.1: 12-17, 20, 23, 24, 27-30, 33, 36
6.2: 52-59, 70-73, 75
6.3: 95, 98-101, 106