

MAT 221: Elementary Probability and Statistics I (MWF Sections)
Fall 2009

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, probability and random variables. Students continuing in MAT 222 will learn how to use statistics in many areas to make various decisions.

Text: *Introduction to the Practice of Statistics* by D. S. Moore, G. P. McCabe, and B.A. Craig, **6th 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 the TI 84 or the 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: Your final grade will be based on three tests counting 20% each, homework, quizzes and class participation for 15%, and the final exam counting 25%. There will be no make-up tests. A test score missing due to an excused absence will be replaced by the appropriate part of the final exam. 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 will be a 2-hour block between 8 am and 2:30 pm on Wednesday, **December 16, 2009**. There will be no exceptions, and so you should not plan to leave campus before 2:30 pm on December 16, 2009.

Homework: Homework assignments are given on an attached page. The homework/quiz policy for each section will be announced by the instructor of that section.

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).

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Academic Integrity: All cases of academic dishonesty will be reported to the Office of the Dean. There is no tolerance of cheating and other immature and dishonest behavior.

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>

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. Also, please contact your instructor privately to discuss your needs at the beginning of the semester.

Learning Goals

Students will be expected to

1. use and understand basic mathematical notation;
2. select and apply an appropriate mathematical model for certain elementary probabilistic problems;
3. do basic hand calculations with accuracy;
4. use appropriate hardware and software related to certain probability distributions.

MAT 221 Tentative Schedule (MWF Sections Fall 2009)

| | Monday | | Wednesday | | Friday | |
|-------------------|--|----------|-----------|----------|--------|----------|
| Aug.-Sept. | 31-Aug | 1.1 | 2 | 1.1 | 4 | 1.2 |
| | 7 | No class | 9 | 1.2 | 11 | 1.3 |
| | 14 | 1.3 | 16 | 2.1/2.2 | 18 | 2.2 |
| | 21 | No class | 23 | 2.3 | 25 | 2.3 |
| Sept.-Oct. | 28 | No class | 30 | 2.4 | 2 | 2.6 |
| | 5 | 3.1 | 7 | Review | 9 | Test 2 |
| | 12 | 3.2 | 14 | 3.3 | 16 | 3.4 |
| | 19 | 4.1 | 21 | 4.2 | 23 | 4.3 |
| | 26 | 4.3 | 28 | 4.4 | 30 | 4.4 |
| Nov. | 2 | 4.5 | 4 | 4.5 | 6 | Review |
| | 9 | Test 2 | 11 | 5.1 | 13 | 5.1 |
| | 16 | 5.2 | 18 | 5.2 | 20 | 5.2/6.1 |
| | 23 | 6.1 | 25 | No class | 27 | No Class |
| Nov.-Dec. | 30 | 6.1/6.2 | 2 | 6.2 | 4 | 6.3 |
| | 7 | Review | 9 | Test 3 | 11 | Review |
| | 14 | Review | | | | |
| | Final Exam (Wednesday, December 16) | | | | | |

Important Dates:

| | |
|------------------------|--------------------|
| Add Deadline | Tuesday, Sept. 8 |
| Academic Drop Deadline | Wednesday, Oct. 28 |
| Withdrawal Deadline | Friday, Nov. 20 |
| Final Exam | Wednesday, Dec. 16 |

MAT 221 Homework Problems (Fall 2009)

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. The problems marked with * are recommended to be done with software or TI 84 (TI 83).

| Section | Problems |
|---------|---|
| 1.1 | 1.10, 1.12, 1.18, 1.19, 1.20, 1.24, 1.28*, 1.36*, 1.40, 1.41, 1.42 |
| 1.2 | 1.61*, 1.63*, 1.65, 1.70, 1.72, 1.73*, 1.74*, 1.80, 1.89, 1.90*, 1.94 |
| 1.3 | 1.108, 1.111, 1.115, 1.119, 1.121, 1.123, 1.126-1.135, 1.136, 1.139, 1.143, 1.149 |
| 2.1 | 2.9, 2.16*, 2.17, 2.22 |
| 2.2 | 2.29, 2.41, 2.44, 2.45, 2.50 |
| 2.3 | 2.65, 2.68*, 2.78, 2.81 |
| 2.4 | 2.87, 2.88, 2.95, 2.98 |
| 2.6 | 2.123, 2.125, 2.129, 2.131 |

***** Test I *****

| | |
|-----|---|
| 3.1 | 3.7, 3.9, 3.17, 3.23, 3.28, 3.30, 3.39 |
| 3.2 | 3.57, 3.64, 3.73, 3.74 |
| 3.3 | 3.83, 3.84, 3.85, 3.88, 3.91 |
| 3.4 | 3.103, 3.105 |
| 4.1 | 4.5, 4.8 |
| 4.2 | 4.21, 4.23, 4.28, 4.32, 4.33, 4.42-4.45 |
| 4.3 | 4.51, 4.56, 4.60, 4.63 |
| 4.4 | 4.74, 4.78, 4.79, 4.83, 4.87, 4.88 |
| 4.5 | 4.108, 4.112, 4.118, 4.119, 4.120, 4.125, 4.126 |

***** Test 2 *****

| | |
|-----|--|
| 5.1 | 5.11, 5.13, 5.15, 5.19, 5.21, 5.23, 5.28, 5.33 |
| 5.2 | 5.42, 5.45, 5.46, 5.49, 5.51, 5.54, 5.55, 5.58 |
| 6.1 | 6.10, 6.11, 6.13, 6.14, 6.15, 6.17, 6.18, 6.25, 6.26, 6.31, 6.32, 6.35 |
| 6.2 | 6.53, 6.56, 6.57, 6.58, 6.59, 6.68, 6.70, 6.73, 6.77, 6.78 |
| 6.3 | 6.90, 6.91, 6.95, 6.96 |

***** Test 3 *****

***** Final (December 16, Wednesday)*****