

**MAT 221: Elementary Probability and Statistics I (MWF Sections)  
Spring 2010**

**Course Description:** First of a two-course sequence, for students in fields that emphasize quantitative methods. Topics covered are probability, design of experiments, sampling theory, introduction of computers for data management, evaluation of models, and estimation of parameters.

**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 (20% each), a final exam (25%), and homework/quizzes (15%). There will be no make-up tests. A missing test score, 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 Monday, **May 10, 2010**. There will be no exceptions, and so you should not plan to leave campus before 2:30 pm on May 10, 2010.

**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:** 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 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.

### **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	
<b>Jan.</b>	18		20	1.1	22	1.1
	25	1.2	27	1.2	29	1.3
<b>Feb.</b>	1	1.3	3	2.1/2.2	5	2.2
	8	2.3	10	2.3	12	2.4
	15	2.6	17	Review	19	Test 1
	22	3.1	24	3.2	26	3.3
<b>Mar.</b>	1	3.4	3	4.1	5	4.2
	8	4.3	10	4.3	12	4.4
	15	Spring Break	17	Spring Break	19	Spring Break
	22	4.4	24	4.5	26	4.5
<b>Mar./Apr</b>	29	4.5	31	Review	2	Good Friday No classes
	5	Test 2	7	5.1	9	5.1
	12	5.2	14	5.2	16	5.2/6.1
	19	6.1	21	6.1/6.2	23	6.2
	26	6.2/6.3	28	Review	30	Test 3
<b>May</b>	3	Review				
	<b>Final Exam (Monday, May 10)</b>					

**Important Dates:**

Add Deadline	Tuesday, Jan. 26
Academic Drop Deadline	Tuesday, Feb. 9
Withdrawal Deadline	Tuesday, Apr. 20
Final Exam	Monday, May 10

## MAT 221 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. 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 (May 10, Monday)\*\*\*\*\*