MAT 221-200   Elementary Probability and Statistics I
Spring Semester 2018

MWF 11:40 am - 12:35 pm   Physics Building Stolkin Auditorium

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Office Hours: MWF 9:30 am - 10:25 am and 1 pm - 2 pm

Course Description: This course is the first course in the Quantitative Skills sequence MAT 221-222. 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.

Mathematics Prerequisite: Algebra competency

Textbooks: *Introduction to the Practice of Statistics* by D. S. Moore, G. P. McCabe, and B.A. Craig, 9th edition. Chapters 1-6 will be covered in MAT 221.

Calculator: 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. Calculators are not to be shared during exams and quizzes.

Exams: All exams, including the final exam, are closed book and closed notes. Students may use any type of calculators they wish except calculators capable of wireless communication. Cell phones or any other devices capable of wireless communication are not allowed. Student ID's will be checked at the exams.

There will be two midterm examinations on the following dates:

> Exam 1   February 23 (Friday)
> Exam 2   April 6 (Friday)

Final Exam: The final exam will be comprehensive. All students must take the final exam at the scheduled time which will be a 2-hour block between 8 a.m. and 2:30 p.m. on Monday, May 7, 2018. There will be no exceptions, and so you should not make plans to leave campus before 2:30 p.m. on Monday, May 7, 2018.

Quiz: Starting from the second week of classes, there will be a quiz in recitation similar to the homework problems. The specific sections covered by each quiz will be announced in lecture. The lowest two quiz scores will be dropped.

Missed Quizzes or Exams There will be no make-up quizzes or exams for any reason. A missed quiz or exam will count as a zero unless it is due to a documented religious observance, University-sponsored event, or documented emergency. For religious observances and for University-sponsored events, this documentation must be submitted in advance. It is the

student's responsibiblity to make arrangement to take the quiz or exam before the class does. For emergencies, you must present documentation from a physician or from the Deans Office as soon as possible. In such cases, a missed quiz will not be counted toward the final grade and a missed exam score will be replaced by the score on the corresponding portion of the material on the final exam.

Homework: Homework will be done online using WeBWorK, an open-source homework system for math and sciences courses. The number of attempts on each problem is unlim- ited. Problems can be done in any order, and you do not have to do them all at once. You can also get a PDF file of the entire assignment and print it out to work offline. Two lowest WeBWorK scores will be dropped.

WeBWorK access information:

If you enrolled in this class before Jan 16th, 2018, you can set up your WeBWorK account as soon as the semester begins. Otherwise, you have to wait until after the Add deadline (Jan 23rd, 2018) to do so.

1. Go to http://webwork.syr.edu/, and click on the class name (MAT 221 Spring 2018).

2. Your Username is your NetID. (For example, your username would be "jqpublic" if your email is jqpublic@syr.edu.)

3. Your Password is initially set to be your 9-digit SUID. You should change it after logging in.

Additional practice HW problems may be assigned occassionally by the lecture instructor. The instructor will clarify whether or not those problems will be collected.

Grading: Your final grade will be based on two midterm exams (25% each), a cumulative final exam (30%), weekly quizzes (12%), and HW (8%). Final letter grades will be given according to the following scale:

Raw Grade x	Letter Grade	Raw Grade x	Letter Grade
$93 \leq x \leq 100$	A	$77 \leq x < 80$	C+
$90 \leq x < 93$	A-	$73 \leq x < 77$	C
$87 \leq x < 90$	B+	$70 \leq x < 73$	C-
$83 \leq x < 87$	B	$60 \leq x < 70$	D
	B-		F

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

Available Student Assistance: Your recitation instructor will hold regular office hours and will make appointments with students having class conflicts with their scheduled of- fice hours. Your lecture instructor will also have office hours. In addition, the Mathe- matics Department offers help in the Math Clinic. The hours and location are posted on http://math.syr.edu/undergrad/math-help.html.

Students with Disabilities: If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), visit the ODS website http://disabilityservices.syr.edu, located in Room 309 of 804 Univer- sity Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting academic adjustments. ODS is responsible for co-ordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjust-ments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. Making arrangements with ODS takes time. Do not wait until just before the first exam.

Academic Integrity: Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the in-tegrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

For this course in particular, the use of any notes or another person's work during quizzes and exams is considered to be a violation of the academic integrity policy. A first violation will result in a zero on the quiz or exam. A second violation will result in failing the course.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. For more information and the complete policy, see http://class.syr.edu/academic-integrity/

Religious Observances Policy: SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. An online notification process is available through MySlice (Student Services ─Enrollment ─My Religious Observances) from the first day of class until the end of the second week of class.

Tentative Course Schedule

This schedule is only tentative. It is your responsibility to find out which topics are covered in class each week.

Week	Content	Week	Content
Week of Jan-15	Ch.1	Week of Mar-12	Spring Break
Week of Jan-22	Ch.1	Week of Mar-19	Ch.3/Ch.5
Week of Jan-29	Ch.4	Week of Mar-26	Ch.5
Week of Feb-5	Ch.4	Week of Apr-2	Ch.5/Review/Exam 2
Week of Feb-12	Ch.4	Week of Apr-9	Ch.6
Week of Feb-19	Ch.4/Review/Exam 1	Week of Apr-16	Ch.6
Week of Feb-26	Ch.2	Week of Apr-23	Ch.6/Review
Week of Mar-5	Ch.2/Ch.3	Week of Apr-30	Review

Suggested Practice Problems

Since WeBWorK does not provide enough problems for you to learn the concepts covered in this class, you should work these textbook problems as the corresponding section is covered in lecture. Exams and quizzes are based on these textbook problems as well as the WeB- WorK problems.

SECTION	PROBLEMS
1.1	7(a−d), 8(a−d) 9, 11(a), 14(a−c)
1.2	25(a,b), 27(a,c), 28, 29, 34, 35, 39(a−c), 40
1.3	65, 66, 67(a−c), 68, 69, 70(a−c), 75-80, 87, 88(a−c)
1.4	102, 103, 110, 111(a), 112-115, 118-121, 124-135, 138a, 139a
4.2	18, 21-23, 25-35, 38-41
4.3	45, 48, 49, 53-59, 61, 62
4.4	68, 70-78, 83, 86
4.5	96-120, 123
2.1	5, 6
2.2	16, 17, 24, 32, 34b
2.3	41, 46, 60
2.4	73(a,b), 75c, 76, 77, 87
2.5	101-103, 105-107
2.7	135-141, 143
3.1	14, 15, 16
3.2	24, 25, 27, 31, 34
3.3	50, 54, 55, 58, 63, 70
5.1	7-9, 12
5.2	25, 26, 28-34, 37-39
5.3	57-65, 69, 71, 73, 78
6.1	12-17, 19, 20, 23-25, 27-29, 33, 36
6.2	52-59, 72-75
6.3	95, 98-101, 106