

**MAT221**  
**Elementary Probability and Statistics I**  
**2017 Summer II**

**Instructor:** Professor Muhammed ALAN  
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**Office Hours:** Monday-Thursday: 9:00AM-9:45AM

**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.

**Prerequisites:** Algebra competency.

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

**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.

**Calculators:** You will need a calculator to do the computations that will arise throughout the course. **Only TI 84 Plus, TI 84 Plus Silver Edition, and TI 83 Plus graphing calculators are allowed on quizzes and exams.** The instructor will show computations using TI84. If you have TI 83 Plus, it is your responsibility to learn how to use it and demonstrate it. TI-84 Plus C, TI-84 Plus CE, TI-Nspire or any other calculators are not allowed. **No wireless calculators are allowed in the exams and quizzes.**

**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:

**Dan Zacharia    315-443-1580    zacharia@syr.edu    300B Carnegie**

**Quizzes:** There will be 3 quizzes. **No make-up quizzes will be given.** For students with an EXCUSED absence, the final exam score will be used as the missing quiz score.

**Homework:** To learn the material in a mathematics class, it is essential to do all the homework assignments. In this class, **Homework** will be done online using *WeBWork*, an open-source homework system for math and sciences courses. Access information:

1. Go to <http://webwork.syr.edu/>
2. Click the class name. . [MAT 221 Summer 2017 Alan](#)
3. Your Username is your NetID, for example jqpublic
4. Your Password is initially set to be your 9-digit SUID. You should change it after logging in
  - The number of attempts is unlimited (There may be some restrictions in some problems). Problems can be done in any order. 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.
  - After each class 1-3 sets of WebWork problems will be assigned. Homework will be due at 11:59pm on the Sunday of that week. It is strongly recommended to do finish in the same day
  - Lowest 2 homework scores will be dropped.
  - Note that all due times are 11:59p.m. EDT (EDT - Eastern Daylight Time. This is the time zone of NY State.) If you are in another state, or country, then check your time zone and submit your homework according to NY time.
  - **No extension will be given in any circumstances. If you have a valid excuse, you may be exempted from that hw. Your excuse must cover entire hw period- not Sunday only. In particular, do not wait until Sunday to do your HW. "Internet problems", "Broken laptops", "Webwork down on Sunday night", etc. are not valid excuses. However, if there is a persistent Webwork Server problem which is longer than a day -24 hours-, then hw due time may be changed.**

**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.

**Calculation of Course Grade:** The required work for this course includes daily homework assignments, quizzes, two in class exams, and a final exam. These pieces will be weighed as follows in determining your semester grade:

Homework 10%  
Quizzes – 15%  
Each midterm exam – 20%  
Final Exam – 35%

Your letter grade for the term then comes from the following table.

Overall score x	Letter Grade	Overall score x	Letter Grade
$0 \leq x < 60$	F	$80 \leq x < 83$	B-
$60 \leq x < 70$	D	$83 \leq x < 86$	B
$70 \leq x < 73$	C-	$86 \leq x < 90$	B+
$73 \leq x < 76$	C	$90 \leq x < 93$	A-
$76 \leq x < 80$	C+	$93 \leq x \leq 100$	A

**Exam Dates:**

**Exam 1:** Thursday, July 13

**Exam 2:** Thursday, July 27

**Final Exam:** Final exam will be given on **Thursday, August 10**.

**Make-up Exams:** There will be NO makeup tests. For students with an EXCUSED absence, the final exam score will be used as the missing exam score.

**Special Note on the Final Exam:**

All students must take the final exam at the scheduled time which is in **Thursday, August 10**. **Do not make arrangements to leave campus before 11:45 AM on Thursday, August 10**. The final exam will not be given at any other time.

**Attendance:** You are expected to attend every class, every exam, and the final exam. If you miss a class, it is your responsibility to obtain a copy of the lecture notes for that class from another student. You are also responsible for any announcements about changes to the course schedule, the exam schedule, or the course requirements that were made during that class.

**In particular, it is your responsibility to keep your exams and quizzes.**

## Tentative Schedule [Exam/Quiz Days are firm, not tentative]

<b>Weekly dates</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
<b>7/3-7/6</b>	<b>1.1/1.2</b>	<b>Independence Day No classes</b>	<b>1.2/1.3</b>	<b>1.3/ 1.4 Quiz 1</b>
<b>7/10-7/13</b>	<b>2.1/2.2/2.3</b>	<b>2.4/2.5/2.7</b>	<b>Review/ Catch-up</b>	<b>Exam 1</b>
<b>7/17-7/20</b>	<b>3.1/3.2</b>	<b>3.3/3.4</b>	<b>4.1/4.2</b>	<b>Review/ Quiz 2</b>
<b>7/24-7/27</b>	<b>4.3/4.4</b>	<b>4.5/5.1</b>	<b>Review/ Catch-up</b>	<b>Exam 2</b>
<b>7-31-8/3</b>	<b>5.2</b>	<b>6.1</b>	<b>6.2</b>	<b>Review/ Quiz 3</b>
<b>8/7-8/10</b>	<b>6.3</b>	<b>Review</b>	<b>Review</b>	<b>Final Exam</b>

### DEADLINES FOR SUMMER SESSION II 2017

FIRST DAY OF SSII – July 3, 2017

ADD CLASS – July 6, 2017

PASS/FAIL OR AUDIT – July 7, 2017

FINANCIAL DROP – July 11, 2017

ACADEMIC DROP – July 26, 2017

WITHDRAWAL DEADLINE – August 4, 2017

LAST DAY OF CLASSES – August 11, 2017

**FINISHING AN INCOMPLETE** – If you are completing an incomplete grade from the previous semester, you should not register for the course again. Ask instructor and inform him that you are finishing an incomplete. The instructor for this semester will forward your grade to the instructor that gave you the incomplete.

**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.

**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. **Cellphones and Smart Watches are prohibited during the exams/quizzes. Wearing a smartwatch and/or holding a cellphone in class while exam is in progress will be considered as violation of exam rules.**

**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.

**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. For fall and spring semesters, 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.

Related link: [http://supolicies.syr.edu/studs/religious\\_observance.htm](http://supolicies.syr.edu/studs/religious_observance.htm)

## 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 integrity 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.

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.

Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. **The presumptive sanction for a first offense is course failure, accompanied by the transcript notation "Violation of the Academic Integrity Policy". The standard sanction for a first offense by graduate students is suspension or expulsion.** Students should review the Office of Academic Integrity online resource "Twenty Questions and Answers About the Syracuse University Academic Integrity Policy" and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities.

**For this course, in particular, the use of any notes or the use of any devices capable of wireless communication, talking to another student during quizzes and exams (until you are out of classroom) is considered to be a violation of the academic integrity policy.**

**Cellphones and Smart Watches are prohibited during the exams and quizzes. Wearing a smartwatch and/or holding a cellphone in class while exam is in progress will be considered as violation of exam rules.**

**Related links:**

The Academic Integrity Policy:

[http://class.syr.edu/wp-content/uploads/2017/05/Academic-Integrity-Policy\\_final.pdf](http://class.syr.edu/wp-content/uploads/2017/05/Academic-Integrity-Policy_final.pdf)

What Students Need to Know About Academic Integrity

[http://class.syr.edu/wp-content/uploads/2017/01/What-Students-Need-to-Know\\_7A.pdf](http://class.syr.edu/wp-content/uploads/2017/01/What-Students-Need-to-Know_7A.pdf)

Additional guidance for students can be found in the Office of Academic Integrity resource: "What does academic integrity mean?"

<http://academicintegrity.syr.edu/what-does-academic-integrity-mean/>

## **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