

# MAT 121 Probability and Statistics for the Liberal Arts I

Summer Start 2016

MTWTh 2:40 – 5:05 PM

SIMS 331

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**Instructor:** Grace Njuguna

**Email:** gnnjugun@syr.edu

**Office:** 400E Carneigie

**Office hours:** Monday & Wednesday 11AM – 12PM or by appointment

**Course Description:** First course in a two-course sequence. Teaches probability and statistics by focusing on data and reasoning and includes displaying data, probability models, and distributions. A student cannot receive credit for MAT 121 after completing any MAT course numbered above 180 with a grade of C or better. **Prerequisites:** A basic understanding of algebra.

## Texts:

- *Elementary Statistics* with Finite Mathematics, **Custom Edition** for Syracuse University, MAT 121 & 122, by Mario F. Triola, 12th edition.
- Minitab Manual that goes with the 12 edition of *Elementary Statistics* by Mario F. Triola, and Workbook

**Attendance:** This class will meet July 5th – August 11th. Attendance is required and will count as 5% of your overall grade. **Any genuine absentism must be documented through the Assistant Dean's Office.** The instructor will take attendance at the beginning of each class.

**Cell Phones:** Please turn all cell phones and electronic devices off during class. NO texting.

**Calculator:** A TI-83/84 is highly recommended. Calculators will be allowed for all class work, homework, tests, and quizzes. *Calculators on cell phones are not to be used on tests or quizzes.*

**Labs:** Class will meet regularly in the computer lab in the Physics Building, room 115 to complete statistical experiments using Minitab. Dates for labs will be announced in class. NO MAKE-UP labs.

**Homework & Quizzes:** Homework will be assigned on a regular basis, but it will NOT be collected. However, it is ESSENTIAL you know how to do the problems. Quizzes based on the homework will be given regularly in class (these will NOT be open book).

**Exams:** There will be two midterm exams and one final exam. **The final exam will be given on Thursday, August 11, during the regular class period of the last day of class.** *Do NOT make any plans to leave campus before the final exam. The Final Exam will not be given at another time.* The remaining exams are tentatively scheduled for **July 12 (Exam 1)** and **July 26 (Exam 2)**. *All exams will be closed book and closed notebook, but you will be able to use one 8.5x11 sheet of paper front and back to write formulas, but not worked out examples.* These formula sheets will be checked for worked out examples. There will be NO MAKE-UP exams. **The grade for any exam missed will be replaced with the grade you receive on the final exam.**

**Grades:** Grades will be assigned based on the percentages below:

Exam 1	20%
Exam 2	20%
Final Exam	20%
Quizzes	20%
Labs	15%
Attendance /Participation	5%

Your letter grade is based on the following table of scores:

Letter Grade	Overall Grade	Letter Grade	Overall Grade
A	93 - 100	C+	76 - 79
A-	90 - 92	C	73 - 75
B+	86 - 89	C-	70 - 72
B	83 - 85	D	60 - 69
B-	80 - 82	F	0 - 59

**Course Goals:** By the end of this course you will be able to ...

- Describe data: Its center, spread, and shape
- Summarize and organize data using charts and tables
- Interpret results from data
- Estimate population values based on sample data (confidence intervals)
- Gain experience using Minitab statistical software

**Getting Help:** I will be available regularly during my office hours or by appointment. You can also seek help at the math clinic. The location and hours of operation will be posted outside of the Math Department Office (215 Carnegie Hall); you can obtain a copy of the schedule in the Math Dept. Office.

**Contacting your Instructor:** I am easily contactable by email, and check my email several times a day. When contacting me, please make an effort to contact me ahead of time and to include a clear and concise subject message in your email.

**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 303 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.

**Problems:** Please inform me of any problems that you have with this course. Problems not satisfactorily resolved with me should be brought to the attention of the course supervisor (Prof. Dan Zacharia, zacharia@syr.edu) without delay.

## Tentative Course Calendar

### July 2016

Monday	Tuesday	Wednesday	Thursday
4	5 <b>Sections:</b> 1.1 – 1.5 & 2.1-2.3	6 <b>Sections:</b> 2.4-2.5 & 3.1-3.2	7 <b>Quiz #1</b> <b>Sections:</b> 3.3-3.4
11 <b>Lab #1</b> Review	12 <b>Exam #1</b> ( Chapter 1~ 3)	13 <b>Sections:</b> 4.1-4.2	14 <b>Sections:</b> 4.3-4.4
18 <b>Lab #2</b> <b>Sections:</b> 4.5-4.6	19 <b>Section:</b> 4.7	20 <b>Quiz #2</b> <b>Sections:</b> 5.1-5.2	21 <b>Sections:</b> 5.3-5.4
25 <b>Lab #3</b> Review	26 <b>Exam #2</b> (Chapter 4 ~ 5)	27 <b>Sections:</b> 6.1-6.2	28 <b>Section:</b> 6.3

### August 2016

Monday	Tuesday	Wednesday	Thursday
1 <b>Lab #4</b> <b>Sections:</b> 6.4-6.6	2 <b>Sections:</b> 7.1-7.2	3 <b>Quiz #3</b> <b>Section:</b> 7.3	4 <b>Section:</b> 7.4
8 <b>Lab #5</b> <b>Section:</b> 7.5	9 <b>Quiz #4</b> Review	10 Review	11 <b>Final Exam</b>

## Computer Labs

Lab 1: Introduction to Computers, Download Data Sets (Chapter 1)

Experiments 2-2, 2-10, 2-12, 2-13, 2-14, 2-15, 2-18, 2-20  
3-1, 3-2, 3-3, 3-4, 3-9

Lab 2: Experiments 4-1, 4-2, 4-17, 4-19

Lab 3: Experiments 5-1, 5-4, 5-6, 5-7, 5.8

Lab 4: Experiments 6-1, 6-2, 6-3, 6-5

Lab 5: Experiments 7-1, 7-2, 7-5, 7-6, 7-13

## Suggested Homework Problems

Section: problems

1-2: 1-25 odd

1-3: 1-31 odd

1-4: 1-27 odd

2-2: 1-21 odd, 29

2-3: 1-13 odd

2-4: 1-25 odd

3-2: 1-23 odd, 29, 31, 33

3-3: 1-23 odd, 29-35 odd

3-4: 1-29 odd

4-2: 1-39 odd

4-3: 1-39 odd

4-4: 1-29 odd

4-5: 1-29 odd

4-6: 1-35 odd

5-2: 1-29 odd

5-3: 1-43 odd

5-4: 1-19 odd

6-2: 1-51 odd

6-3: 1-31 odd

6-4: 9, 13, 19

6-5: 1-19 odd

6-7: 1-23 odd

7-2: 1-43 odd

7-3: 1-27 odd, 31-35 odd

7-4: 1-29 odd

7-5: 1-23 odd

**DEADLINES FOR SUMMER START 2016**

FIRST DAY OF SS – July 5, 2016

ADD CLASS – July 7, 2016

PASS/FAIL OR AUDIT – July 8, 2016

FINANCIAL DROP – July 12, 2016

ACADEMIC DROP – July 27, 2016

WITHDRAWAL DEADLINE – August 5, 2016

LAST DAY OF CLASSES – August 12, 2016

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.