

## MAT 121 Probability and Statistics for the Liberal Arts I

Summer I 2016

MTWTh 2:00 – 4:25 PM

Hall of Languages 105

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**Instructor:** Thembinkosi Mkhathshwa  
**Email:** tpmkhats@syr.edu  
**Office:** 400F Carnegie  
**Office hours:** MTh 12:45 PM – 1:45 PM, 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, Third Custom Edition for Syracuse University, Math 121 & 122.
- Minitab Manual that goes with the 12<sup>th</sup> edition of Elementary Statistics by Mario F. Triola.

**Attendance:** This class will meet May 23<sup>rd</sup> – June 30<sup>th</sup>. Attendance is required. I may use attendance to bump up your overall grade to the next immediate grade (e.g., from a B to a B+) at the end of the semester provided you have accumulated no more than **one** unexcused absence in the course of the semester. The only acceptable excuses shall be a verifiable physician's note or a dean's excuse. **This policy will not apply for overall grades less than 56%.** I 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 basic calculator that can take square roots is required. However, 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.

**Homework & Quizzes:** A list of suggested homework problems is included at the end of this syllabus. This homework will not be collected or graded. 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, June 30, 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 **June 9 (Exam 1)** and **June 27 (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	30%
Quizzes	20%
Labs	10%

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 hold regular office hours and will be available on an appointments basis to meet **with students having class conflicts** with the scheduled office hours. In addition, the mathematics department offers free tutoring through the Math Clinic. The Math Clinic begins on Monday, May 23<sup>rd</sup> and runs through Thursday, June 30 in Carnegie 120. Times on availability of consultants at the Math Clinic are posted on the website: <http://math.syr.edu/undergrad/math-help.html>

**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.

**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.

## Course Calender May 2016

Monday	Tuesday	Wednesday	Thursday
23 1-1 ~ 1-4	24 2-1 ~ 2-3	25 2-4, 3-1, 3-2	26 <b>Quiz #1 (Chapter 1 and 2)</b> <b>Lab #1</b>
30 <b>No class – Memorial Day</b>	31 3-3, 3-4		

\*\* subject to change\*\*

## June 2016

\*\* subject to change\*\*

Monday	Tuesday	Wednesday	Thursday
		1 4-1~4-3	2 <b>Quiz #2 (Chapter 3)</b> 4-4, 4-5
6 4-6	7 <b>Quiz #3 (Chapter 4)</b> <b>Lab 2</b>	8 <b>Catup and Review</b>	9 <b>Exam 1 (Chapter 1 ~ 4)</b>
13 5-1 ~ 5-3	14 5-4, 6-1, 6-2	15 6-3, 6-4	16 6-5, 6-7
20 <b>Quiz #4 (Chapter 5 and 6)</b> <b>Lab 3</b>	21 7-1, 7-2	22 7-3~7-4	23 <b>Quiz #5 (Chapter 7)</b> <b>Catch up and Review</b>
27 <b>Exam 2 (Chapter 5 ~ 7)</b>	28 <b>Lab 4</b>	29 <b>Review for Final</b> <b>Quiz #5 Due</b>	30 <b>Final Exam</b>

**DEADLINES FOR SUMMER SESSION I 2016**

FIRST DAY OF SSI – May 23, 2016

ADD CLASS – May 25, 2016

PASS/FAIL OR AUDIT – May 26, 2016

FINANCIAL DROP – May 31, 2016

ACADEMIC DROP – June 15, 2016

WITHDRAWAL DEADLINE – June 24, 2016

LAST DAY OF CLASSES – July 1, 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.

## 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