

**MAT 121 Probability and Statistics for the Liberal Arts I**  
Summer Session I, MTWTh 2:00 PM - 4:25 PM (Hall of Languages 105)  
Summer 2014

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**Instructor:** Hyesu Kim  
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**Office:** 103C Archbold  
**Office hours:** Wednesday 11:45AM ~ 1:45PM or by appointment

Course Supervisor: Professor Andrew Vogel  
Office: 229F Physics Building  
Problems you cannot resolve with your instructor should be brought to the attention of the course supervisor.

**Course Description:** This is the first course in a two-course sequence. This course teaches probability and statistics by focusing on data and reasoning and includes displaying data, probability models, and distributions. The sequence MAT 121- MAT 122 can be used to satisfy the quantitative skills requirement of the liberal arts core in the College of Arts and Sciences.

**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

**Prerequisites and Restrictions:** An understanding of elementary level of algebra is necessary. MAT 121 is a prerequisite for MAT 122. A student cannot receive credit for MAT 121 after completing any MAT course numbered above 180 with a grade of C or better.

**Required Texts:**

- *Elementary Statistics with Finite Mathematics* by Mario F. Triola, Second Custom Edition for SU Math 121 & 122.
- Minitab Manual for the 12<sup>th</sup> Ed. of Elementary Statistics by Mario F. Triola

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

**Calculator:** A basic calculator that can take square roots is required. However, a TI-83/TI-84 is *highly* recommended; these calculators include several statistical tests that can alleviate some of the burden of calculation. Calculators will be allowed for all class work, homework, tests, and quizzes.

**Attendance and Participation:** As with any math class, attendance is necessary to fully understand the material. It is expected that students come to class prepared: a notebook, a pencil, and a calculator (not on your phone). Asking and answering questions in class helps you gauge how well you are learning the material, so please do not hesitate to participate.

**Quizzes and Homework:** Homework is for your practice. It will not be collected or graded. However, it is ESSENTIAL you know how to do the problems. Suggested homework exercises will be contained in this syllabus. Quizzes will be based on the homework. Quizzes will **NOT** be open book.

**Labs:** Periodically we will meet in a computer lab to complete statistical exercises and experiments using Minitab software. Dates for labs will be announced in class.

**Exams:** There will be two in-class exams and one final exam. All exams (including the final) will be OPEN NOTEBOOK but CLOSED BOOK. There will be NO MAKE-UP exams unless in the case of a *documented* emergency. The grade for any exam missed (with proper documentation presented) will be replaced with the grade you receive on the final exam.

\*\*\*Do NOT make any plans to leave campus before the final exam. If there is an urgent need to leave campus before the final exam is given, please see me, otherwise you must take the final exam during the scheduled time.

**Exam 1**            June 5 (Thursday)  
**Exam 2**            June 19 (Thursday)  
**Final Exam**    June 26 (Thursday)

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

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

Your course grade can be calculated using the following formula:

$$\text{Overall Score} = (0.20)(\text{Exam 1}) + (0.20)(\text{Exam 2}) + (0.20)(\text{Final Exam}) + (0.20)(\text{Total Quiz Grade}) + (0.15)(\text{Total Lab Grade}) + (0.05)(\text{Attendance/Participation Grade})$$

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

**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>. For this course in particular, failure to obey the rules about what sorts of notes you are allowed to use during exams is considered to be a violation of the academic integrity policy. These rules are found on pages 1 and 6 of the syllabus.

**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.

**Getting Help:** Your instructor will be holding regular office hours and will make appointments with students having class conflicts with their scheduled office hours. There also is math clinic available for extra help.

## Tentative Course Schedule

<b>Date</b>	<b>Sections</b>
May 19	1-2, 1-3
20	1-4, 1-5
21	2-2, 2-3
22	2-4, 2-5
27	Lab 1
28	3-2, 3-3, 3-4
29	4-2, 4-3, 4-4
June 2	4-5, 4-7
3	Catch up and Review
4	Exam 1
5	Lab 2
9	5-2, 5-3
10	5-4, 6-2
11	6-3, 6-4
12	6-5, 6-6
16	Lab 3
17	7-2, 7-3
18	7-4, 7-5
19	Catch up and Review
23	Exam 2
24	Lab 4
25	Final Exam Review
26	Final Exam

*These are subject to change.*

## Suggested Homework Problems

Section: problems

1-2: 1-25 odd  
1-3: 1-31 odd  
1-4: 1-27 odd  
1-5: 1-33 odd  
2-2: 1-21 odd, 29  
2-3: 1-13 odd  
2-4: 1-25 odd  
2-5: 1-9 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  
4-7: 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  
6-6: 1-31 odd  
7-2: 1-43 odd  
7-3: 1-27 odd, 31-35 odd  
7-4: 1-29 odd  
7-5: 1-23 odd