MAT121
Probability and Statistics for the Liberal Arts I
SPRING 2015

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Office Hours: Monday and Wednesday: 12:30-1:45PM

Mathematical Prerequisites and Restrictions: MAT 121 has no formal prerequisites; however, it is desirable that students have a reasonable level of competence in high school algebra. MAT 121 is a prerequisite for MAT 122. A student cannot receive credit for MAT 121 after completing STT 101 or any MAT course numbered above 180 with a grade of C or better.

MAT 121 and the Liberal Arts Core: 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.

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

Computer Labs: When you registered for this course you should have also registered for a recitation section that goes with it. There will be computer lab assignments to be done during these recitation times, which you must hand in to be graded. All 13 computer labs count toward your grade. Attendance at all 13 computer labs is required. Please bring your textbook, laboratory manual, and calculator to these recitations.

Homework: Homework is for your practice. It will not be handed in; it will not be graded. Page 5 of the syllabus contains suggested problems for each section. It is also a good idea to try the statistical literacy and critical thinking, chapter quick quiz, and review exercises at the end of each chapter.

Exams: You should bring your textbook and calculator to each exam (including the final). You will be allowed to use your textbook and calculator during the exam, but will not be allowed to use any notes other than what you write in your textbook. Cell phones or any other devices capable of wireless communication are not allowed. Student ID's will be checked during the exams.

Make-up Exams: Make-up exams will be given only in very exceptional circumstances. In most cases instead of a make-up exam the final exam will be counted extra. In either case, the student must convince the instructor that there is a very good reason for missing the exam.

Calculation of Course Grade: Each midterm exam and the final exam will be graded on a scale of 0–100. Your computer labs will also be graded on a scale of 0-100. Your overall score for the term is then computed by the following formula.

Overall score = (.15)(test 1) + (.15)(test 2) + (.15)(test 3) + (.15)(test 4) + (.20)(final exam) + (.20)(average of lab scores).

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

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

Final Exam: Final exam will be given on Monday, May 4, between 8:00am to 2:30pm. The exact time and location for the 2-hour time slot for the final exam will be announced in lecture near the end of the term. The final exam will not be given at any other time. Therefore, **do not make plans to leave campus before 2:30pm on May 04, 2015**.

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.

Calculator: Your calculator should be able to take square roots.

Available student assistance: Instructor office hours, TA office hours, Math Clinic, and Review sessions.

Tentative Schedule

Day	Date	Section(s)
Monday	01/12	1.1, 1.2 & 1.3
Wednesday	01/14	1.4, 2.1 & 2.2
Wednesday	01/21	2.3 & 2.4
Monday	01/26	2.4
Wednesday	01/28	Catch up and Review
Monday	02/02	Test1
Wednesday	02/04	3.1 & 3.2
Monday	02/09	3.3
Wednesday	02/11	3.4
Monday	02/16	4.1 & 4.2
Wednesday	02/18	4.3
Monday	02/23	4.4 & 4.5
Wednesday	02/25	4.6
Monday	03/02	Catch up and Review
Wednesday	03/04	Test2
Monday	03/16	5.1 & 5.2
Wednesday	03/18	5.3 & 5.4
Monday	03/23	6.1 & 6.2
Wednesday	03/25	6.3
Monday	03/30	6.5
Wednesday	04/01	6.4 & 6.7
Monday	04/06	Catch up and Review
Wednesday	04/08	Test3
Monday	04/13	7.1 & 7.2
Wednesday	04/15	7.3
Monday	04/20	7.4
Wednesday	04/22	Catch up and Review
Monday	04/27	Test4
Monday	05/04	Final Exam

Computer Labs

1. Instructor cover: Introduction to Computers; Chapter 1.

2. Instructor cover: Chapter 2.

3. Students do: Experiments 2-2, 2-10, 2-12, 2-13, 2-14, 2-18, 2-20.

4. Instructor cover: Chapter 3.

5. Students do: Experiments 3-1, 3-2, 3-3, 3-4, 3-9.

6. Instructor cover: Chapter 4.

7. Students do: Experiments 4-1, 4-2, 4-3, 4-19 (Count 1's not 6's.).

8. Instructor cover: Sections 5-1, 5-2, 5-4.

9. Students do: Experiments 5-1, 5-4, 5-6, 5-7, 5-8.

10. Instructor cover: Sections 6-1, 6-2, 6-3, 6-5.

11. Students do: Experiments 6-1, 6-3, 6-5.

12. Instructor cover: As much of chapter 7 as you have time for.

13. Students do: Experiments 7-1, 7-2, 7-5, 7-6, 7-13.

LABS START THE FIRST WEEK OF CLASSES.

Suggested Homework Problems

1-2: 1-35 odd
1-3: 1-31 odd
1-4: 1-25 odd
2-2: 1-31 odd,
2-3: 1-17 odd
2-4: 1-23 odd
3-2: 1-31 odd
3-3: 1-41 odd
3-4: 1-35 odd
4-2: 1-41 odd
4-3: 1-37 odd
4-4: 1-29 odd
4-5: 1-31 odd
4-6: 1-35 odd
5-2: 1-21 odd
5-3: 1-39 odd
5-4: 1-19 odd
6-2: 1-47 odd
6-3: 1-33 odd
6-4: 1-17 odd
6-5: 1-21 odd
6-7: 1-23 odd
7-2: 1-37 odd
7-3: 1-29 odd
7-4: 1-22 odd

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

Related links:

The Academic Integrity Policy: http://academicintegrity.syr.edu/academic-integrity-policy/
Twenty Questions and Answers about the Academic Integrity Policy: http://academicintegrity.syr.edu/faculty-resources/
What does academic integrity mean?: http://academicintegrity.syr.edu/what-does-academic-integrity-mean/

Learning Outcomes: Completing MAT 121 will provide the student with the following.

- A basic understanding of the notions fundamental to the use of statistics as a tool for understanding decision-making. These notions include the description of data (pictorially and numerically), frequency distributions, probability, some classical probability distributions (binomial, normal, Student -t, Chi-square), and confidence interval estimates.
- Facility in naming, computing, and interpreting the various numeric quantities associated with the notions mentioned above. These quantities include several population parameters and sample statistics, notably measures of central tendency (mean, median, mode) and measures of spread (range, standard deviation and variance). They also include measures of position (percentiles and z-scores), probabilities, point estimates, and margins of error.
- A foundation for the further study of statistical inference (for example, MAT 122).
- Practical experience with statistical computer software (Minitab).

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