



Math 44, 41, 42a and 42b Course Information Sheet

Textbook: Blumen, Allan G., *Elementary Statistics*, 7th Ed., McGraw Hill Publishing, 2009.
ISBN: 978-0-07-353497-8 (*Student*) or ISBN: 978-0-07-333121-8 (*Instructor*)

Course Outline of Record: Every section of Math 44, Math 41, Math 42a and Math 42b is required to cover all of the material as listed in the Course Outline of Record. It is our contract with our transfer institutions, with each other and our students about what the course will include. Failure to follow the outline puts your students at a disadvantage in their next course and leads to discrepancies across the sections. Any instructor who does not follow the course outline carefully risks the possibility of not being allowed to teach that course again at LPC. All course outlines of record can be found on the Las Positas College Website under Programs/Courses.

http://www.laspositascollege.edu/programs/course_outlines/math_index.php

or on the Mathematics Department Blackboard site.

Math 44, 41, 42a and 42b Course Materials are available on the math department's blackboard site. These materials include: the course outline of record; a table summarizing teacher resources for this course (e.g., labs, group activities); core lab assignments; sample homework lists; and, a sample course calendar; to gain access to this site, please contact the course coordinators Bobby August or Gregory Daubenmire.

Suggestions regarding content: *Math 44 and 41* content includes all sections of Chapters 1 – 13 omitting sections: 5.4, 10.4, and 12.3 since they are not covered in the course outline. *Math 44 (Statistics and Probability)* has Intermediate Algebra (Math 55) as a prerequisite; while, *Math 41 (Statistics for Business Majors)* has applied calculus or 1st semester calculus (Math 34 or Math 1) as a prerequisite.

- **Chapter 1:** This chapter is largely an overview of the course and an introduction to much of the terminology used in statistics; this chapter also includes sampling methods and illustrates the use and misuse of statistics.
- **Chapter 3:** Course content includes finding the mean, variance, and standard deviation for ungrouped, grouped and weighted data; students need to understand the difference between these data sets. Also, it is important that our students understand the difference between parameters and sample statistics.
- **Chapter 5:** It is not necessary to cover section 5.4. The following distributions: Multinomial distribution, Poisson distribution and the Hyper-geometric distribution are not covered in the course outline
- **Chapter 10:** It is not necessary to cover section 10.4, this topic is not covered in the course outline.
- **Chapter 12:** It is not necessary to cover section 12.3 on Two-Way Analysis of Variance; this topic is not covered in the course outline.

Suggestions regarding content: *Math 42a* content includes all sections of Chapters 1 – 8 and Chapter 10, excluding sections 5.4 and 10.4 since they are not covered in the course outline. Please refer to suggestions for Chapters 1, 3, 5 and 10 above. *Math 42a* is a three-unit statistics course covering single variable statistics.

Suggestions regarding content: *Math 42b* is the second half of the *Math 44*, *Math 41* course; students will sign up for *42b* and join the online *Math 44/41* distance education course about midway into the semester. The *42b* student will cover all of the sections in Chapters 7 – 13, excluding sections 10.4 and 12.3. It is strongly recommended that students needing five-units of statistics (*i.e. students needing both one and two variable statistics*) take *Math 44* or *Math 41*, rather than *42a* and *42b*.

Student Learning Outcomes: Student Learning Outcomes, SLOs, are learning proficiencies the Department feels every student enrolled in our math classes should be encouraged to master. The course-level SLOs for *Math 44*, *41*, *42a*, and *42b* connect with our program level SLOs of:

Communication, Multiple Representations and Problem-Solving. These course-level SLOs should be listed in your syllabus for the course. Please refer to the Mathematics Department website for more SLO information.

- Upon successful completion of *Math 44/41/42a/42b*, a student should be able to demonstrate
 - the ability to interpret the central value of a data set in the context of a problem (Communication).
 - the ability to graph qualitative data, (*pie charts, Pareto charts*, etc) and quantitative data, (*Histograms, stem-and-leaf*, etc) (Multiple Representations).
 - the ability to estimate a population parameter given the sample statistics (Problem-Solving).

Math Lab Requirements: There is a required lab hour attached to this course, as part of the course outline of record. Students should bring a flash-drive or disk in order to save their work. The lab is scheduled; however, the instructor has some flexibility as to when, during the allotted class period, the lab is done. **CORE LAB** assignments for *Math 44/41*, *Math 42a* and *42b* have been created (Dunn, *Statistics Lab Manual*) and are available from the book store. Contact the *Math 44* course coordinators Bobby August or Gregory Daubenmire for more information. In addition, there are many examples of good math labs that other instructors have created; we encourage you to talk with other instructors and share labs.