Math 42 Intro to Probability & Statistics
Course Information Sheet

Math 42 Coordinators: Bobby August Jr. & Greg Daubenmire
raugust@laspositascollege.edu
gdaubenmire@laspositascollege.edu

COURSE MATERIALS

- **Lab Manual:** Statistics Lab Manual, Bill Dunn (available at Las Positas Bookstore).
- **Software:** Lab assignments are to be completed utilizing Microsoft Excel 2010 - which is available on all in-class computers.
- **Calculator:** Instructors are encouraged to demonstrate statistical functions with a Ti calculator. There is a virtual Ti calculator located on all in-class computers.

COURSE CONTENT

Cover sections: 1.1-1.6, 2.1-2.3, 3.1-3.4, 4.1-4.5, 5.1-5.3, 6.1-6.4, 7.1-7.4, 8.1-8.6, 10.1-10.2

- **Suggested pacing (17 week):**

  Week 1--Week 5
  Chapter 1.1--1.6 The Nature of Probability and Statistics
  Chapter 2.1--2.3 Frequency Distributions and Graphs
  Chapter 3.1--3.4 Data Description
  Chapter 4.1--4.3 Probability and Counting Rules
  Review, EXAM #1

  Week 5--Week 10
  Chapter 4.4--4.5 Probability and Counting Rules
  Chapter 5.1--5.3 Discrete Probability Distributions
  Chapter 6.1--6.4 The Normal Distribution
  Chapter 7.1--7.2 Confidence Intervals and Sample Size
  Review, EXAM #2

  Week 11--Week 16
  Chapter 7.3--7.4 Confidence Intervals and Sample Size
  Chapter 8.1--8.6 Hypothesis Testing
  Chapter 10.1--10.2 Correlation and Regression
  Review, EXAM #3

  Week 17
  Review for Final Exam
  FINAL EXAM (with SLO problems)

- **Suggested pacing (8 week):**

  Week 1--Week 3
  Chapter 1.1--1.6 The Nature of Probability and Statistics
  Chapter 2.1--2.3 Frequency Distributions and Graphs
  Chapter 3.1--3.4 Data Description
Chapter 4.1--4.3 Probability and Counting Rules  
Review, EXAM #1

Week 3--Week 5  
Chapter 4.4--4.5 Probability and Counting Rules  
Chapter 5.1--5.3 Discrete Probability Distributions  
Chapter 6.1--6.4 The Normal Distribution  
Chapter 7.1--7.2 Confidence Intervals and Sample Size  
Review, EXAM #2

Week 5--Week 7  
Chapter 7.3--7.4 Confidence Intervals and Sample Size  
Chapter 8.1--8.6 Hypothesis Testing  
Chapter 10.1--10.2 Correlation and Regression  
Review, EXAM #3

Week 8  
Review for Final Exam, FINAL EXAM (with SLO problems)

COURSE OUTLINE OF RECORD  
- All course outlines can be found on the LPC website under Programs/Courses:  
  http://www.laspositascollege.edu/courseOutlines/MATH/index.php  
- Your teaching contract requires that you cover all of the material listed in the Course Outline of Record.  
- The course outline is our contract with our transfer institutions, with each other, and with our students about what the course will include.  
- Any instructor who does not carefully follow the course outline risks the possibility of not being allowed to teach that course again at LPC.

COURSE SYLLABUS  
Your syllabus for this course should include the following information:  
- Textbook and software requirements  
- Student Learning Outcomes (see below)  
- Course Objectives (see Course Outline of Record)  
- LPC repeatability policy (see below)

STUDENT LEARNING OUTCOMES  
- Student Learning Outcomes, SLOs, are learning proficiencies the Mathematics Department has determined students should be able to demonstrate at the end of the course.  
  Course-level SLOs for Math 42 connect with our program-level SLOs of communication, problem-solving, and modeling.  
- Although assessment of SLOs is voluntary for adjunct faculty, we encourage all instructors to participate in the SLO assessment process as collection of SLO data is essential for program review and compliance with accreditation standards.  
- **SLO assessment process:**  
  - All SLO’s should be assessed on the final exam, except for the one labeled Lab, one question per SLO (each instructor writes their own assessment).
Assessments should reflect the appropriate level of rigor for the course and must specifically address the SLO being assessed.

- The scoring rubric is 3 for correct understanding of the concept, 2 for partial understanding of the concept, 1 for little or no understanding of the concept, and 0 for a non-attempt.

- Results should be entered into eLumen, the SLO data base, either aggregated for the class, or by individual student. For help with eLumen, contact the coordinator for this course.

The following course-level SLOs should be listed in your course syllabus.

<table>
<thead>
<tr>
<th>Program-Level SLO</th>
<th>Course-Level SLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Test a hypothesis about a single population mean.</td>
</tr>
<tr>
<td>Modeling (Lab)</td>
<td>Given a two variable data set, test whether or not the correlation is significant. If so, then fit a linear regression and use it for data prediction (Lab problem)</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Determine a confidence interval for a single population proportion.</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Solve an application problem using the central limit theorem.</td>
</tr>
</tbody>
</table>

**REPEATABILITY**

There is a new state-mandated Repetition Policy for the Chabot-Las Positas District that is retroactive to the date a student first started taking courses within the district (at either Chabot or Las Positas)

What does this mean for students?

- Within the district, a student is allowed to attempt a course (or courses equivalent to it) a total of THREE TIMES. If the first attempt is unsuccessful (W, D, F, or NC (No Credit)), a student has two additional attempts to complete the course with a passing grade (C, B, A or Cr (Credit)).

- After three attempts to pass a course (or equivalent course), students will be blocked from registering for that course (or its equivalents) again at either Las Positas or Chabot College unless a special circumstance petition is approved, as described in the Administrative Rules and Procedures.

- More information can be found at the following link:  