
West Los Angeles Community College (WLAC)
Spring 2015
Math 227: Statistics

▪ **Instructor**

Name: Beyene Bayssa

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Name: Beyene Bayssa

Office hours: 8:50am-9:35 am, S

Office: MSB 217

▪ **Course**

Title: Statistics; **Course number:** Math 227, **Section:** 1500, **Room:** MSA 109,
Time: 9:35 - 1:50 pm, **Day:** S.

▪ **Description**

An introductory course in statistics to include: the calculation of basic statistics, frequency distributions and graphs, descriptive measures, introduction to probability, sampling theory, confidence intervals, hypothesis testing, two sample procedures, analysis of variance (ANOVA), regression analysis, categorical data analysis, and nonparametric methods

▪ **Method of instruction**

The methods of instruction in this class will be lecture and discussion. You are expected to take an active role in this learning process. Taking notes in class is essential.

▪ **Prerequisite**

Math 125 or equivalent with C grade or better or appropriate placement level demonstrated through math assessment process.

▪ **Student Learning Outcomes (SLO)**

The following COURSE STUDENT LEARNING OUTCOMES (SLOs) will be evident throughout the course:

- Test hypothesis for sampling proportion, mean and standard deviation
- Given a distribution, determine the probability of an event
- Perform correlation and linear regression analysis.

The following institutional STUDENT LEARNING OUTCOMES (SLOs) will be evident throughout the course:

- Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences,
- Communication: Effectively communicate thought in a clear, well-organized manner to persuade, inform, and convey ideas in academic, work, family and community settings, and
- Quantitative Reasoning: Identify, analyze, and solve problems that are quantitative in nature.
- Technical Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.

▪ **Calculator**

A scientific calculator (with STAT options) is **required** for this course. I suggest a “graphing” calculator, one that includes STAT options, such as the **TI-83(plus)** or **TI-84(plus)**.

▪ **Text**

Statistics Informed Decision Using Data by Michael Sullivan, III, 3th Edition

▪ **Home work**

Home work will be given. It will be collected on the test day for those sections the test covers and it will be checked for completeness. **No late** home work will be accepted. For every home work please

- Staple
- Write and underline or highlight the **Section number**
- Write your name (last name first).

- Show all **necessary work**.

- **Project**

Project will be given. It will be checked for completeness. **An** extra credit will be given for using **Excel** or **Stat Crunch** for given project.

- **Attendance**

Attendance is important for a student success. Tardiness and early leaving are distractive and student is required to attend the full scheduled time. Excessive absence (**more than three classes**), excessive tardiness and excessive early leaving can cause exclusion from the class.

- **Examinations**

- **Tests**

Tests will be given as scheduled (will be announced if any change). **No makeup** and no early taking exam is allowed. The lowest of four tests due to any reason including Emergency will be dropped. The final exam will not be dropped. Missed exams will be recorded zero.

- **Final examination**

There will also be a comprehensive final examination on all sections discussed. It will be given on

Date: June 6, 2015

Room: MSA 109

Time: 9:35 - 1:50 pm

- **Grading**

Grading consists of

Project-----	5%
Home Work-----	10%
Tests -----	60%
Final-----	25%.

Letter grade will be assigned as

A: 90% -100%,

B: 80% - 89% ,

C: 70% - 79%,

D: 60% - 69%,

F: 0% - 59%

- **Student Conduct in class**

Any behavior that distracts instructional activity will not be tolerated. Un acceptable behaviors during class times, includes but not limited to tardiness, using electronic devices such as **cellphone** except emergency cases, eating and drinking except water, coming in and out of class many times, making disruptive noise, disrespectful and uncooperativeness. See the college catalog or schedule of classes for more lists of such behaviors. All necessary actions according to rules and regulations of the college will be taken on students with such distractive behavior.

- **Important dates**

A student should properly enroll in class and also should properly drop whenever decided to do so. Check for important dates such as add and drop dates on Spring2015 academic calendar.

- **Student with Disability**

Student with disability should talk to the instructor to get all necessary help and arrangements.

- **Academic dishonesty**

Violations of Academic integrity of any by a student provide grounds for disciplinary actions by the instructor or by the college. Violation of academic integrity includes but not limited to cheating on exam and plagiarism. For more information refer to the college catalog.

- **Disclaimer**

Although every effort will be made to adhere to the policies, procedures, and schedules outlined in this syllabus, the instructor reserves the right to revise any information without prior notice.

▪ **Tentative schedule**

Session	Text Section/Activity
Saturday	WEEK 01
02/21/15	Class Introduction 1.1 Introduction to the Practice of Statistics 1.2 Observational Studies vs. Designed Experiments 1.3 Simple Random Sample 1.4 Other Effective Sampling Methods 1.5 Bias in Sampling 1.6 The Design of Experiments 2.1 Organizing Qualitative Data 2.2 Organizing Quantitative Data
	WEEK 02
02/28/15	2.3 Additional Displays of Quantitative Data 2.4 Graphical Misrepresentations of Data 3.1 Measures of Central Tendency 3.2 Measures of Dispersion 3.3 Measures of Central Tendency and Dispersion for Grouped Data
	Week 03
03/07/15	3.4: Measures of Position and Outliers 3.5: The Five-Number Summary and Boxplots 4.1: Scatter Diagrams and Correlation Problem Solving and Review
	WEEK 04
03/14/15	Test 1 on Chapters 1-3 4.2: Least-Squares Regression 4.3: Diagnostics on the Least-Squares Regression Line
	WEEK 05
03/21/15	4.4: Contingency Tables and Association 5.1: Probability Rules 5.2: The Addition Rule and Complements 5.3: Independence and the Multiplication Rule 5.4: Conditional Probability and the General Multiplication Rule
03/28/15	WEEK 06
	5.5 Counting Techniques 5.6 Putting It Together: Which Method Do I Use? 6.1 Discrete Random Variables

Session	Text Section/Activity
	6.2 The Binomial Probability Distribution
04/04/15	WEEK 07
	NO CLASS (SPRING BREAK)
	WEEK 08
04/11/15	7.1: Properties of the normal distribution 7.2: Standard Normal distribution 7.3 :Application of normal distribution 7.4: Assessing Normality 7.5: The Normal Approximation to the Binomial Probability Distribution Problem solving(Review)
	WEEK 09
04/18/15	Test 2 on Chapters 4-7 8.1: Distribution of the Sample Mean 8.2: Distribution of the Sample Proportion
04/25/15	WEEK 10
	9.1: Logic in constructing Confidence interval for population mean when population standard deviation is known. 9.2: Logic in constructing Confidence interval for population mean when population standard deviation is unknown 9.3: Confidence interval for population proportion 9.4: Confidence interval for population standard deviation. 10.1: The Language of Hypothesis Testing
	WEEK 11
05/02/15	10.2: Hypothesis test for a Population Mean- population standard deviation known 10.3: Hypothesis test for a Population Mean- population standard deviation unknown 10.4: Hypothesis test for population proportion 10.5: Hypothesis test for a population standard deviation Problem Solving and Review
	WEEK 12
05/09/15	Test 3 on Chapters 8 -10 11.1: Inference about Two means: Dependent sample 11.2: Inference about Two Means: Independent Samples
05/16/15	Week 13
	11.3: Inference about Two population proportions 11.4: Inference about two population standard deviations. 12.1: Goodness-of-Fit Test 12.2: Tests for Independence and the Homogeneity of Proportions
	WEEK 14
05/23/15	13.1: Comparing Three or More Means (One-Way Analysis of Variance) Problem Solving and Review

Session	Text Section/Activity
	WEEK 15
05/30/15	Test 4 on Chapters 11-13 15.1: Nonparametric
	WEEK 16
06/06/15	Problem Solving and Final Review Comprehensive Final Exam