

MATH 227 Statistics 4 units  
Fall 2015

Section#4500

MW 7:30–9:35pm  
MSA, Room 009

### INSTRUCTOR INFORMATION

**Jaime Vallejo**

Office: MSB 214 at WLAC  
Office Hours: Wednesday 6-7:15pm  
Additional Office Hours by Appointment

Office Phone: none  
Email: [vallej@wlac.edu](mailto:vallej@wlac.edu)

### COURSE INFORMATION

#### ADD POLICY

Students will be added as space permits and only when full documentation is provided showing that all prerequisites have been satisfied.

#### PREREQUISITES

**Completion of Math 123c, 125, or 128 with a grade of C or better, or equivalent.**

#### ABOUT THE COURSE

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, nonparametric methods, and use of statistical computer software.

The methods of instruction in this class will be lecture, discussion, and **group learning**. You are expected to take an active role in this learning process. You are responsible for all information covered in class. Taking notes in a math notebook on concepts and examples is **necessary!** We will cover essentially the entire book.

#### TEXT

Sullivan, *Statistics: Informed Decisions Using Data*; **3rd Edition**. This text was written with the assumption that it would be read! It is **expected** that you will read each section carefully and in detail **prior** to each class meeting in order to gain a basic understanding of the ideas that will be discussed. Do not assume that I will "regurgitate" the text during class lecture; some of the information you need in this course will not necessarily be discussed or presented in class. A **Solutions Guide** appears at the end of the text.

#### 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)**.

#### ATTENDANCE

You are expected to attend regularly and on time, with cell phones **PUT AWAY and turned off**. **PLEASE DO NOT "TEXT" DURING CLASS**. Attendance to all class sessions is **required**. Please plan your schedule so that you arrive on time. You **will** be dropped from the class due to excessive absences, i.e., if you miss two (2) consecutive classes in the first 3 weeks of the semester, or if you miss six (6) classes during the entire semester. However, you should not, under any circumstances, assume that you will be officially dropped from the class by the instructor. It is the student's responsibility to officially drop the course if they decide to do so. Last day to drop classes without a "W" is September 13, 2015. Last Day to Drop with a "W" is, November 22, 2015.

#### GRADING

Your grade will be based upon the following point distribution:

HW/Group Assignments....	5%	90%+	A
3 Midterm Exams.....	70%	80%– 89%	B
<u>Final Exam.....</u>	<u>25%</u>	70%– 79%	C
Total possible.....	100%	55%– 69%	D

Your class grade is based on a weighted average between the above components, using the formula **.70(midterm avg) + .05(HW %) + .25(final exam score)**

## STUDENT BEHAVIOR

Students are bound by the Code of Academic Conduct that addresses issues of academic dishonesty, cheating and student behavior. If you are caught cheating on an exam, you will receive a grade of zero for that exam and the incident will be reported and become part of your permanent record. Any behavior that could be interpreted as disruptive to the class learning environment will result in the instructor filing a student misconduct report. Using extreme foul language is an example of such behavior.

## HOMEWORK

Essential to pass this course—practice! All homework problems must be done to assure adequate preparation for examinations. You are expected to do 8-12 hours of homework per week! Homework will be assigned daily. Chapter homework will also be due and collected the day of the chapter test. However, your homework could be checked the day after it is assigned!

You are responsible to check your own answers in the back of the book whenever they are available. Incorrect work is unacceptable. Be sure to **show your work** on your written homework. (If you have not heard this language used before in other math or science classes, or if you have doubts about what is meant by the phrase "**show your work**", please visit the instructor during office hours for a more in depth explanation.

**Copy each problem (to some extent)**, and present the solution clearly. Box your answers. **DO NOT JUST TURN IN A LIST OF ANSWERS** – THIS WILL RECEIVE NO CREDIT. Staple your assignments in order, and identify with your name and chapter number. Late homework will not be accepted. Answers to all assigned problems are in the back of the book.

**WHILE I AM LECTURING PLEASE DO NOT DO HOMEWORK PROBLEMS!**

## GROUPWORK QUIZZES

**GROUPWORK/QUIZZES and CLASS PARTICIPATION:** Group learning sessions will be an integral part of this course, and your participation is vital (so you must be in class!) Groupwork will occasionally be collected and graded. You may also have short homework quizzes, as mentioned above, (this may include a quiz on the reading assignment) or a longer quiz. There will be no make-up quizzes.

## CLASS PARTICIPATION

**Homework assignments, Groupwork and Quizzes will count at least 5% of your grade. Note: About 5-10% of this component of your grade will be based on your class participation/attitude! I expect you to maintain a positive, respectful attitude throughout the entire semester.**

## EXAMS

There will be three (3) midterm exams (closed-book, closed-notes) graded on a 100 point scale. There are NO make-up exams; missing an exam will result in a score of zero. (See me early if you know you will be absent on an exam day.)

**MAKE-UP TESTS:** ▲No make-up or retest will be given. ▲One missing midterm score will be replaced by the final exam percent score. ▲Your lowest taken midterm score will be replaced by .90 times your homework percent score, assuming this score is better than your lowest midterm score. Example: Lowest midterm score of 54 with a homework percent of 80 is replaced by 72. The highest possible replacement score is 100. ▲Only one replacement per student!

The comprehensive final exam will be given on **Wednesday, December 17, 2015 (7:30-9:35PM)**. NO exceptions. **The final exam will count for 25% of your grade.** No make-up final will be given.

## ADDITIONAL RESOURCES

HELP: Form study groups outside of class and meet regularly. Send me an e-mail if you have a general question. Use WLAC Math 227 as the subject title, otherwise it may get deleted by mistake. Homework questions will be answered in class. Go to the math tutoring center (library LRC) for tutoring. They are not replacements for classroom instruction. The math tutoring services are FREE. To receive the most benefit from this free service, it is recommended that students visit the centers at least once a week rather than visiting just before a test. Remember to bring your textbook and notes with you when you go to tutoring.

**NOTE:** *If you have a disability and might need accommodations in this class, please contact Disabled Student Program & Services (DSP&S) in Building 5SB 320 | (310) 287-4450 as soon as possible to ensure that you receive the accommodations in a timely manner. You MUST also discuss your need for accommodations with me. IT IS YOUR RESPONSIBILITY TO MAKE SURE THE DSP&S OFFICE HAS YOUR EXAM BEFORE THE TEST DATE!*

## STUDENT LEARNING OUTCOMES

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

1. Given a set of sample data, perform a HYPOTHESIS TEST (HT), using our "Math 227 Hypothesis Testing Template."
2. Students will use a data set to perform a simple linear regression analysis, using appropriate technology, and use the results to create and interpret the sample linear regression equation and assess its utility.
3. Students will use mathematical principles of probability and symbolic representations to interpret discrete and continuous random variables.

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

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

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

1. Apply quantitative thinking processes using basic mathematical operations to solve common academic, workplace, and family problems. (Theme: mathematical operations)
3. Use mathematical tools essential for analyzing quantitative problems and for producing solutions. (Theme: mathematical tools)
5. Select appropriate math strategies for solving and handling real life problems involving finance, economics, and family issues. (Theme: mathematical problem-solving)

## 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.