

Course Title

West LA College
Mathematics Department

Math 227 (4916)
Introductory Statistics

Fall 2013
August 26 -- December 9, 2013

Instructor Information

Instructor: Ms. W. Miao

Office Hours: 7:55 - 8:30 PM M

e-mail: miaowe@wlaac.edu

I check my e-mail once every weekday except holidays. Please include "Math 227" in the subject field of your message. Messages without proper subjects are usually deleted without even opening. When addressing the course-related questions, please explain to me what you did and state specific questions that you have so I can help you learn the materials more efficiently. For example, instead of asking "Can you show me how to do #3?" the student should present what he/she already did and ask for correction.

Course Information/Structure

Class Format: Hybrid (face-to-face and online)

Class Meeting Time and Location: Monday, 5:45 - 7:50 PM GC 140

Class Web Site: <https://myetudes.org>

Course Structure:

- Two-hour weekly meeting begins with discussion/question/answer of the materials covered in previous/coming week -- up to 80 minutes, then a 30- to 40-minute quiz or activity.
- **Module of the week:** Read the module of the week! It contains all the work you need to accomplish for that week. It usually includes a three-part assignment to be completed by the following face-to-face class meeting:
 1. Reading assignment;
 2. Online discussion forum; and
 3. *MyMathLab* online homework assignments

Course Contents/Objectives

Prerequisite: Completion of Math 125 with a grade of C or better

Contents: This course emphasizes the conceptual understanding and application of statistical methods. Contrary to the traditional formula-driven approach, this class will be taught utilizing concept-driven approach. Students are asked to provide interpretations of the data or scenario rather than merely to find a numerical solution. The availability of technology helps students to learn materials that are less calculation based and more concepts oriented. The major topics include data exploring with graphs and numerical summaries, data association, probability, probability distributions, sampling and sampling distribution, confidence intervals, hypothesis testing, χ^2 -test and regression analysis.

Objectives: Students will learn the basics of descriptive and inferential statistics, so that they may develop statistical literacy and reasoning, and be able to carry out statistical investigations. Upon completion of this course students should be able to:

- Explain the "big picture" of statistical investigations.
- Understand the core statistical ideas
- Understand articles and news stories that use statistics
- Experience and understand process of statistical investigations by "doing" statistics
- Understand why statistics cannot prove conclusions but can suggest them.
- Value what statistics can do for us, and not just think that statistics can lie.

Student Learning Outcomes

- > **Critical Thinking:** Classroom activities and online assignments will require you to use sound reasoning to analyze, solve and interpret problems.
- > **Communication:** You are expected to show and explain your work in a clear, well-organized manner in the assignments you turn in.
- > **Quantitative Reasoning:** This is the core of the course of Statistics. It will be demonstrated in all the work you do in this course.
- > **Civic Responsibility:** Students are expected to respect classmates as well as the instructor. This includes refraining from disruptive behavior (coming late, leaving early, wandering in and out of class, eating/drinking during class, side conversations, instant messaging, etc) and practicing positive behaviors (cooperation, civility, helpfulness, constructive engagement in class activity).
- > **Technical Competence:** Utilize the appropriate technology - including web-based systems and hand-held graphing calculators - as well as pencil-and-paper methods for "skill drills" and problem solving.
- > **Ethics:** All students will maintain the highest standards of academic honesty. You may NOT give or

receive help on tests or quizzes, and you may not turn in someone else's work as your own.

Course Materials

Textbook (required): Sullivan, M., *Statistics -- Informed Decisions Using Data*, 3rd ed., Prentice Hall, 2010. Textbook could be in either a hardcopy version or an electronic version (see *MyMathLab* below).

Scientific Calculator (required): Statistical analysis will be conducted using StatCrunch, a social statistical analysis tool. StatCrunch is available free in MyMathLab (see below). The scientific calculator is for you to do some simple calculation in some of the tests.

MyMathLab (required): This is a web-based e-learning application. You are required to do homework assignments online through *MyMathLab*. ebook and StatCrunch are available from MyMathLab.

To register/login MyMathLab: Please refer to the attached Student Registration Instructions. ***Important:*** Register MyMathLab for this course on or before September 3rd to ensure proper enrollment. (There is a grace period of 17 days for temporary access if you choose to pay later).

 [Student Registration Instructions.pdf](#)

Assessments/Grading

Assessments:

- 10%: Online MyMathLab homework assignments; one homework assignment for each section; unlimited attempts; record the best score.
- 20%: online asynchronous discussions/evaluations/critiques
- 40%: In-class quizzes
- 30%: Comprehensive final exam (A minimum of 70% of the final exam is required for passing the course)

Grading:

<u>Percentage cutoff</u>	<u>Grade</u>
89.5%	A
79.5%	B
69.5%	C
59.5%	D
Below 59.5%	F

General Rules

- You are required to check in the class web site (here at Etudes) at least once a day for new announcement, if any.
- Online homework assignments at *MyMathLab* should be completed by due dates. No assignments will be re-opened for individual student for any reason except during the designated period of time. (Refer to Course Calendar for exact dates.)
- Attending the first class meeting on Monday, August 26, from 5:45 to 7:50 PM is mandatory. You will be dropped from the course if you fail to show up on the first meeting.
- Weekly face-to-face class meetings on Mondays are required to attend. You will be dropped from this class for an accumulation of absence (including being tardy/leaving early) of 4 hours.
- In-class quizzes and activities cannot be made up for any reason. No quizzes will be given prior to the scheduled date either. Missing more than one quiz will result in dropping from the course. Ten percent of the total quiz scores will be dropped when calculating your course grade.
- Quizzes and final exam will be closed book and closed-notes. No scratch papers are allowed. Calculators and laptops may be required for some tests. Language translators are not allowed in the quizzes. No sharing of the devices is permitted.
- The participation in online discussion forums is required. Merely agree or disagree to previous posting (for instance, "I think you're right! I like that idea!") is NOT considered as participation. Research the topic before participating the discussions is considered as participation with quality. Part of the reason of having discussions is to share the knowledge. Post the reference (an article, a link to the website, or a book that you read) at the end of the posting not only to share but also support your opinion and suggestions.
- Students are bound by the Code of Academic Conduct and Reporting Policy that addresses issues of academic dishonesty. If you are caught cheating on an exam or a report, you will receive a grade of zero for that exam or report and the incident will be reported and become part of your permanent record. Please note that a zero grade assigned as a result of academic dishonesty will not be dropped or replaced.

Important Dates

- Last day to drop a class without a fee: September 6, 2013
- Last day to drop a class without a "W": September 6, 2013

- Last day to drop with a "W": November 15, 2013

Course Calendar

Tentative Course Calendar Overview

8/26 ~ 9/1	Get ready for the class (including StatCrunch training & Etudes training)
9/2 ~ 9/8	Data Collection (Chap 1) <9/2: No face-to-face meeting>
9/9 ~ 9/15	Descriptive Stats - I (2.1; 2.2)
9/16 ~ 9/22	Descriptive Stats - II (3.1; 3.2; 3.4; 3.5)
9/23 ~ 9/29	Regression (4.1 & 4.2)
9/30 ~ 10/6	Probability (5.1 ~ 5.4)
10/7 ~ 10/13	Probability Distributions (6.1; 6.2 & 7.1 ~ 7.3)
10/14 ~ 10/20	Sampling & Inferences on Means - I (8.1; 9.1; 9.2)
10/21 ~ 10/27	Sampling & Inferences on Means - II (10.1; 10.3)
10/28 ~ 11/3	Sampling & Inferences on Means - III (11.1; 11.2)
11/4 ~ 11/10	Wrap up Sampling & Inferences on Means
11/11 ~ 11/17	Sampling & Inferences on Proportions - I (8.2; 9.3) <No class meeting on 11/11>
11/18 ~ 11/24	Sampling & Inferences on Proportions - II (10.4; 11.3)
11/25 ~ 11/27	Wrap up Sampling & Inferences on Proportions 11/25 ~ 12/1: MyMathLab online assignments reopen (Chaps 1, 5 ~ 7)
12/2 ~ 12/8	Course wrap up & review for final exam
12/9	Final Exam

Note: This is an overview of schedule for the course. Refer to Module of the week for the details.

