



Statistics

Course Syllabus

Course No:	MATH 45	Instructor:	Prof. Leonid Romanyuk
Semester:	Spring 2013	Phone:	(510) 628-8024
Units:	3 units (= 45 lecture hours)	E-mail:	lromanyuk@lincolnuca.edu
Class hours:	Monday 9:00 am – 11:45 am	Office hours:	Monday, Wednesday 11:50 am – 12:25 pm
Classroom:	TBA	Office number:	Room 402

COURSE DESCRIPTION:

This course is designed for both the business major and for the non-business student without previous knowledge of statistics. Emphasis is on descriptive statistics and inferential statistics with relevant applications to solving problems, hypothesis testing and decision making. Important statistical models and distributions will be discussed. (3 units) Prerequisite: MATH 10 or MATH 15

REQUIRED MATERIALS:

TEXTBOOK:	Essentials of Business Statistics, by Bruce Bowerman, Richard O'Connell, J. Burdeane Orris, McGraw-Hill/Irwin, 4th Edition, 2011, ISBN-10: 007340182X
TOOLS:	A scientific or graphing calculator and Microsoft Excel software.
OPTIONAL:	Student Solutions Manual to accompany Essentials of Business Statistics, by Bruce Bowerman, Richard O'Connell, J. Burdeane Orris. Publisher's Web site student resources http://highered.mcgraw-hill.com/

LEARNING OBJECTIVES:

The students will learn the basic concepts and techniques of business statistics and probability, and how to apply them. The students will be introduced to problem solving and statistical modeling and will build a solid foundation in the principles of statistical thinking using case study and example driven discussions of all basic business statistics topics.

INSTRUCTIONAL METHODS:

Lecture method is used in combination with the practical use of a calculator, business and statistical software, and the Internet resources to solve application problems. The emphasis will be on learning by doing. Every student must participate in an intensive classroom activity. Reading, writing, and problem solving assignments will be made weekly throughout the course.

OTHER REQUIREMENTS:

All students are required to attend the class. Continuous assessment is emphasized. Written or oral quizzes will be given every week. Students must complete all assignments and take all quizzes, mid-term exam and final exam **ON THE DATES DUE**. Talking in class, using cell phones, coming late, leaving the room at times other than at break time is not allowed. Plagiarism/cheating will result in the grade "F" and a report to the administration.

TESTING:

Classroom activities	every week	10%
Quizzes	every week	10%
Assignments	every week	10%
Mid-term exam	as scheduled	30%
Final exam	as scheduled	40%

There will be no make-up for a missed quiz or participation in a classroom activity. No make-up exams will be given unless you have the instructor's prior approval obtained in person before the exam date, with the exception of an extreme emergency. Late assignments will get no credit or reduced credit. ***Students will not be allowed to use computers or cellular phones during tests.***

GRADING:

Less than 50% total is an "F"; 75% total is "C+". Other grades will be calculated "on the curve" from the scores above.

COURSE SCHEDULE:

Daily schedule of topics is attached. Students should read every chapter of the textbook on the topic to be discussed in class before they come to class. Be ready to answer in writing all review questions and to solve problems at the end of the chapter.

ASSIGNMENTS:

Each assignment is due on the Monday of the next week after it is assigned. Additional assignments based on the Internet and library resources can be given during the semester. Take a folder or a notebook and create an Assignment Notebook. You will put in it the solutions and other results of all your assignments. The instructor can ask you to turn in this folder / notebook and grade your work at any time during the semester.

MODIFICATION OF THE SYLLABUS:

This syllabus was updated on January 7, 2013. The instructor reserves the right to modify this syllabus at any time during the semester. An announcement of any changes will be made in the classroom.

Spring 2013 Schedule of Topics

*Read every chapter on the topic to be discussed in class before you come to class.
Be ready to answer in writing all review and discussion questions at the end of the chapter.*

Date	Topics	Chapters
1/28/13	An Introduction to Business Statistics	1
2/04/13	Descriptive Statistics: Tabular and Graphical Methods	2
2/11/13	Descriptive Statistics: Numerical Methods	3
2/18/13	Presidents' Day (Holiday)	
2/25/13	Probability	4
3/04/13	Discrete Random Variables	5
3/11/13	Continuous Random Variables. Properties of the Mean and the Variance of a Random Variable and the Covariance	6 Appendix B
3/18/13	Review. MIDTERM EXAM	1 - 6
3/25/13	Sampling and Sampling Distributions	7
4/01/13	Confidence Intervals	8
4/08/13	Hypotheses Testing	9
4/15/13	Statistical Inferences Based on Two Samples	10
4/22/13	Chi-Square Tests	12
4/29/13	Simple Linear Regression Analysis	13
5/06/13	Review	1 - 13
5/13/13	COMPREHENSIVE FINAL EXAM	