



# Lincoln University

|                      |                                 |                       |                              |
|----------------------|---------------------------------|-----------------------|------------------------------|
| <b>Course Title:</b> | Statistics                      | <b>Instructor:</b>    | Prof. Serge Ruiz             |
| <b>Course No:</b>    | BA 45                           | <b>Phone:</b>         | 949-232-3323                 |
| <b>Units:</b>        | 3 units (= 45 lecture hours)    | <b>E-mail:</b>        | sruiz@lincolnuca.edu         |
| <b>Class Hours:</b>  | Tuesdays,<br>12:30 pm – 3:15 pm | <b>Office Hours:</b>  | After class or on<br>request |
| <b>Semester:</b>     | Spring 2014                     | <b>Office Number:</b> | Room 402                     |

## 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*

## 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

## 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.

## ASSIGNMENTS & QUIZZES

Most assignments will be from the textbook. Each assignment is due at the beginning of the following class. You can return your assignments electronically if you desire. Quizzes will take place at the beginning of the course, after collecting assignments and answering questions. Quizzes are designed to last 20 minutes and are based on the material in the assignment.

## TESTING

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

There will be no make-up for a missed 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

Grades will be determined according to the following percentages awarded for completed work:

|        |       |       |       |       |       |       |       |       |       |      |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 100-93 | 92-90 | 89-87 | 86-83 | 82-80 | 79-77 | 76-73 | 72-70 | 69-67 | 66-60 | 59-0 |
| A      | A-    | B+    | B     | B-    | C+    | C     | C-    | D+    | D     | F    |

## OTHER COMMENTS

- Please participate. What you put into the class will determine what you and others get out of it. You will be asked to go to the board to solve exercises.
- Please come on time. Late arrivals disturb everyone else.
- If you miss a class, you are responsible for getting notes/slide printouts on the material covered from a classmate or the instructor.

- To avoid distracting noise in class, cellular phones must be turned off or the ringing mode silenced.
- Questions and comments during the class are welcome. Do not hesitate to ask questions – do not leave anything unclear for you.

## SCHEDULE OF TOPICS

*Please read every chapter of the textbook before you come to class*

| Session | Date  | Topics   | Chapters    |
|---------|-------|--|-------------|
| 1       | 01/21 | An Introduction to Business Statistics   | 1           |
| 2       | 01/28 | Descriptive Statistics: Tabular and Graphical Methods  | 2           |
| 3       | 02/04 | Descriptive Statistics: Numerical Methods  | 3           |
| 4       | 02/11 | Probability  | 4           |
| 5       | 02/18 | Discrete Random Variables  | 5           |
| 6       | 02/25 | Continuous Random Variables. Properties of the Mean and the Variance of a Random Variable and the Covariance | 6           |
| 7       | 03/04 | Sampling and Sampling Distributions  | 7           |
| 8       | 03/11 | Confidence Intervals   | 8           |
|         | 03/18 | SPRING RECESS  |             |
| 9       | 03/25 | <b>Review. Midterm Exam</b>  | 1-8         |
| 10      | 04/01 | Hypotheses Testing   | 9           |
| 11      | 04/08 | Statistical Inferences Based on Two Samples  | 10          |
| 12      | 04/15 | Chi-Square Tests   | 12          |
| 13      | 04/22 | Simple Linear Regression Analysis  | 13          |
| 14      | 05/29 | Review   | 8-13        |
| 15      | 05/06 | <b>Review. Final</b>   | <b>1-13</b> |

## MODIFICATION OF THE SYLLABUS

**This syllabus was updated on February 4, 2014.** 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.