



# Lincoln University

## BA 115 – Statistics

### COURSE SYLLABUS

Fall 2019

- Instructor:** Prof. Daniel Sevall  
**Lecture Schedule:** Tuesday, 12:30 PM – 3:15 PM  
**Credits:** 3 units / 45 lecture hours  
**Level:** Developed (D)  
**Office Hours:** Tuesdays 11:30 to 12:30  
**e-mail:** [dsevall@lincolnuca.edu](mailto:dsevall@lincolnuca.edu)  
**Textbook:** Levine, David, and Szabat, Katherine. *Business Statistics: A First Course, 7<sup>th</sup> Edition*. (2017) Prentice Hall.  
ISBN-13: 978-0321979018.  
Earlier editions of this course text are acceptable for students to use.  
**Prerequisite:** *MATH 10 or MATH 15*  
**Last Revision:** August 8, 2019

### CATALOG DESCRIPTION

This course is designed for both the business major and for the non-business students 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.

### COURSE LEARNING OUTCOMES<sup>1</sup>

|   | Course LO   | Program LO | Institutional LO         | Assessment activities       |
|---|---|------------|--------------------------|-----------------------------|
| 1 | Students are expected to learn basic concepts and techniques regarding business statistics and probability. The emphasis of the course will be on the application of statistical techniques | PLO 1      | ILO 1a, ILO 2a, ILO 3a   | Midterm and Final Exams     |
| 2 | Students are expected to develop logic, application and interpretation of the most common statistical techniques used in business and social science.                                       | PLO 2      | ILO 1a, ILO 6a           | Midterm Exam and Final Exam |
| 3 | Confidently communicate using business statistics and mathematics terminology   | PLO 3      | ILO 2a, ILO 6a           | Case Analyses               |
| 4 | Be able to choose an appropriate statistical analysis for the type of data to be analyzed.  | PLO 4      | 4 ILO 1a, ILO 2a, ILO 5a | Final Exam                  |

<sup>1</sup> Detailed description of learning outcomes and information about the assessment procedure are available at the [Center for Teaching and Learning](http://ctl.lincolnuca.edu) website (ctl.lincolnuca.edu).

## INSTRUCTIONAL METHODS

*This is a direct classroom instruction course.*

The emphasis will be on learning by solving problems. Every student is welcome to participate in intensive classroom activities. Reading and problem solving assignments will be given throughout the course. Homework will be assigned and solved during sections. During lectures, students will learn principles and concepts covered in the text as well as in various sources on relevant topics. The teaching assistant will conduct the laboratory session. He will help students to review the material as well as work on cases relevant to the topics covered by the homework. There may be class discussions and group presentations by students on the project assignments during class.

Assignments and projects require students to actively use resources of the library. Detailed guide to business *resources of the library* as well as the description of Lincoln University approach to *information literacy* are available at the [Center for Teaching and Learning](http://ctl.lincolnuca.edu) website (ctl.lincolnuca.edu).

## ACADEMIC DISHONESTY, PLAGIARISM POLICIES AND PROCEDURES

Lincoln University intends to be a community of educators and learners with shared values. Accordingly, Lincoln expects the highest standards of honesty and integrity from all members of the academic community.

***What is considered academic dishonesty?*** It is generally taking credit for work which is not your own or attempting to receive credit or improve a grade through fraudulent or deceptive means. Examples include taking information from or providing information to another student, or plagiarism (the intentionally or knowingly representing the word or ideas of another as one's own in any academic exercise).

***What is Plagiarism?*** Whenever you quote from, make reference to, or use ideas attributable to others in your writing, you must identify these sources in citations or bibliography, or both. If you do not, deliberately or accidentally, you have committed plagiarism. Plagiarism, defined as the act of stealing or using as one's own the ideas of another, is not permitted in college or university work or in any published writing. "Plagiarism may take the form of repeating another's sentences as your own, adopting a particular apt phrase as your own, paraphrasing someone else's argument as though it were your own." (Modern Language Association Handbook, New York: MLA, 1977, P.4). The sanctions for plagiarism range from reprimands and counseling to expulsion from the University. The appropriate sanction is determined by the University Committee on Academic Dishonesty. The University faculty may use internet-based services to identify those portions of student written assignments that might not meet the full standards of academic integrity as defined in this statement.

## COURSE REQUIREMENTS

### 1. Textbook Assignments

Students should read all assignments and be prepared to discuss the material covered. Assigned problems should be worked out in advance as a basis for review in class. Students should pinpoint major concepts and procedures in each chapter, understand their meaning and application, and raise questions in class on areas of complexity or ambiguity. Study in teams is recommended both to accelerate the learning process and to obtain feedback on individual interpretations. Homework may be collected for purposes of extra credit.

### 2. Projects/Cases

Through the completion of selected end of chapter cases, each student will show the application of concepts covered in the course, such as study of annual reports, ratio and other analysis

including comparison with other companies, and bond and stock valuation. Students are encouraged to work in teams, and each team will select a topic. Grades will be based on content, innovative ideas, and presentation. Instructors may require students to make an oral presentation in class based on their paper.

### 3. Midterm and Final Exam

There will be a midterm and final exam. The purpose of these tests is to evaluate the student's understanding of the concepts and how to apply them. This includes learning how to perform the calculations and use the techniques that are an integral part of a course in finance. The tests also serve to let the student know how he or she is doing and what areas need further emphasis.

### **GRADING ASSESSMENT CRITERIA**

|                                    |      |
|------------------------------------|------|
| Midterm Exam                       | 25%  |
| Attendance and Class Participation | 15%  |
| Case Analyses                      | 20%  |
| Final                              | 40%  |
| -----                              |      |
| Total                              | 100% |

Letter grades will be given based on the following scaling:

| Grade  | A      | B     | C     | D     | F    |
|--------|--------|-------|-------|-------|------|
| Points | 90-100 | 80-89 | 70-79 | 60-69 | 0-59 |

### **COURSE SCHEDULE**

|                          |  |
|--------------------------|--|
| Class Sessions 1 and 2   | Chapter 1 (Introduction and Data Collection)<br>Chapter 2 (Presenting Data in Tables and Charts) |
| Class Sessions 3 and 4   | Chapter 3 (Numerical Descriptive Measures)<br>Chapter 4 (Bayes Theorem)                          |
| Class Sessions 5 and 6   | Chapter 5 (Discrete Probability Functions)   |
| Class Sessions 7 and 8   | Chapter 6 (Introduction to Normal Distribution) and Midterm                                      |
| Class Sessions 9 and 10  | Chapter 7 (Sampling and Sampling Distribution)   |
| Class Sessions 11 and 12 | Chapter 8 (Confidence Interval Estimation)   |
| Class Sessions 13 and 14 | Chapter 9 (Hypothesis Testing)   |
| Time Permitting          | Chapter 10 (ANOVA)<br>Chapter 11 (Chi-Square Distributions)                                      |
|                          | Review and Final Exam  |