COMMUNITY COLLEGE OF PHILADELPHIA

BUSINESS STATISTICS

## ECON 112 901 ONL 15A FA18

Professor Yancey

Office hours: M, W, F 8:00 am to 10:00 am

(By appointment only)

Room: B2-22G

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**COURSE DESCRIPTION:**

Business Statistics is a course designed to provide each student with the knowledge to solve practical problems in the business world and as a tool for advanced courses. The overall purpose of the course is to provide an introduction to the basic concepts and techniques in probability and statistics. These concepts and techniques that are going to be introduced are some of the important tools to support data-driven decision making. Your ability to identify situations where these techniques may be effectively applied and to appreciate their potential as well as their limitation s to solving complex business problems will be developed.

The methodology of each technique will be developed and applied in a real business context. Problems of increasing complexity will be used to emphasize problem description and definition. Emphasis will be placed on the interpretation and implementation of the computer - generated results.

By the end of the course, you should be able to use EXCEL to analyze and present data in a managerial useful way. You should understand that variation characterizes products and processes, know a little about the use of probability to reflect variation and know how to interpret sample data in light of variation. In summary, your ability to analyze and interpret data should be improved.

Text: *Basic Statistics;* Lind, Marchal, and Wathen, Statistical Techniques in Business and Business and Economics, (17th ed.)

**CONTACT**

**INFORMATION:** Email: kyancey@ccp.edu

**AVAILABILITY:** I am available to meet with you to ensure adequate understanding of the course requirements and to offer assistance and suggestions.

**SCHEDULE:** ONLINE – DISTANCE LEARNING

**ASSIGNMENTS**: Unless otherwise indicated all assignments are to be completed before the class in which they appear. Please read each assigned chapter, its preview, summary, and appendices. Late assignments will not be accepted. Any change to course syllabus or class policy will be announced in class.

**PARTICIPATION:** Students are expected to participate in class discussion by both asking and answering questions. Therefore, it is important that you read the text material before each class session. It is very helpful in this course if you make an effort to follow the daily news reports concerning the performance of the economy.

**LECTURES**: The online modules consist of lectures on the assigned and related material.

**FINAL GRADES**: Your final grade will be based on the scores received on your class exams and on your class assignments. There will be four exams given during the semester and a comprehensive final exam during final exam week. The average of your three highest exam scores and your final exam grade will determine 70% of your final grade. The average scores of your Canvas and Connect assignments will count for 30% of your final grade. Make-up tests will not be given.

**GRADING:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | 90 and above |  | C | 70 - 79 |
| B | 80 - 89 |  | D | 60 - 69 |
|  |  |  | F | Below 60 |

**GRADE EXPLANATION:**

A = Outstanding: Mastery of essential elements and related concepts, plus demonstrated excellence or originality.

##### B = Good: Above average knowledge of essential elements and related concepts.

##### C = Satisfactory: Acceptable knowledge of essential elements and related concepts.

D = Passing: Minimal knowledge of a sampling of related concepts only.

F = Failure: Unsatisfactory progress. This grade is also assigned in cases of academic misconduct, such as cheating or plagiarism and for excessive absences.

**ACADEMIC**

**DISHONESTY:**

is the pursuit of scholarly activity free from fraud and deception and is an educational objective of the institution. Academic dishonesty includes, but is not limited to cheating, plagiarism, fabrication of information of citations, facilitating acts of academic dishonesty by others, unauthorized prior possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

The sanctions for an academic violation are expulsion, suspension from the College for a specified period of time, loss of credit or portion from work associated with academic dishonesty, and/or a written warning stating that further misconduct may result in serious consequences.

It is expected that each student will do their own work on examinations and assignments. A violation will result in a zero grade for that examination or assignment.

PLEASE NOTE THAT TEXT-ENABLED DEVICES WILL NOT BE ALLOWED DURING AN EXAM. IF YOU NEED A CALCULATOR, IT MUST BE A CALCULATOR-ONLY DEVICE.

**CENTER FOR**

**DISABILITY:**

Students who believe they may need an accommodation based on the impact of a disability should contact me privately to discuss their accommodation form and specific needs as soon as possible, preferably within the first week of class. If you need to request reasonable accommodations, but do not have an accommodation form, please contact the Center on Disability, room BG-39, phone number 215-751-8050.

**STUDENT LEARNING OUTCOMES:**

Upon completion of this course students will be able to:

1. Develop an appreciation for the role of statistics in its everyday application to decision making in business.
2. Construct an analysis in tabular and graphical form.
3. Familiarization with basic probability calculations as a foundation for understanding probability distributions and decision making under uncertainty.
4. Explain both discrete and continuous probability distributions and their application to decision making in inferential statistics.
5. Use sample data and a variety of statistical data to aid in making decisions common to the business environment.

**COURSE OUTLINE**

The student should read each chapter and the summary sections at the end of the chapter. The student should then try to answer the questions at the end of the chapter. If the student cannot answer a question, that section of the chapter should be read again.

***Chapter 1 – What is Statistics? – 9/4/18***

Reading: Chapters 1

Assignments:

Canvas Assignments

***Chapter 2 – Describing Data: Frequency Table, Frequency Distributions, and Graphic Presentation - 9/4/18***

Reading: Chapter 2

Assignments:

Canvas Assignment

Connect Problem

***Chapter 3 – Describing Data: Numerical Measures – 9/14/18***

Reading: Chapter 3

Assignments:

Canvas Assignment

Connect Problem

***Chapter 4 – Describing Data: Displaying and Exploring Data – 9/23/18***

Reading: Chapter 4

Assignments:

Canvas Assignment

Connect Problem

***Exam 1 – Chapters 1, 2, 3 and 4 – September 29 - October 1, 2018***

***Chapter 5 - A Survey of Probability Concepts – 9/30/18***

Reading: Chapter 5

Assignments:

Canvas Assignment

Connect Problems

***EXAM 2 – Chapter 5 – October 13 - October 15, 2018***

***Chapter 6 – Discrete Probability Distributions – 10/14/18***

Reading: Chapter 6

Assignments:

Canvas Assignment

Connect Problems

***Chapter 7 – Continuous Probability Distributions – 10/21/18***

Reading: Chapter 7

Assignments:

Canvas Assignment

Connect Problems

***Chapter 8 – Sampling Methods and the Central Limit Theorem - 10/28/18***

Reading: Chapter 8

Assignments:

Canvas Assignment

Connect Problems

***EXAM 3 – Chapters 6, 7 and 8 – November 3 - November 5, 2018***

***Chapter 9 – Estimation and Confidence Intervals – 11/4/18***

Reading: Chapter 9

Assignments:

Canvas Assignment

Connect Problems

***Chapter 10 – One-Sample Tests of Hypothesis – 11/11/18***

Reading: Chapter 10

Assignments:

Canvas Assignment

Connect Problems:

***Chapter 11 – Two-Sample Tests of Hypothesis – 11/18/18***

Reading: Chapter 11

Assignments:

Written Assignment

***THANKSGIVING VACATION – 11/22 TO 11/25***

***EXAM 4 – Chapters 9, 10 and 11 – November 26 - November 28, 2018***

***Practice Final Exam – November 29 to December 7, 2018***

***Last Day of Class – December 7, 2018 – Final Review***

***FINAL EXAM****: Comprehensive Final Exam – Final Exam Week*