

Course Syllabus:

Business Statistics 310 MGT 310 - 01 Kelce, Room 208 MWF, 11:00 - 11:50, Fall 2022

Instructor: Mary K. Wachter, MBA
Office: Kelce Room #223

Office Hours:

**MW:** 8:30 – 9:00, 9:50 – 11:00, 11:50 - 12:10

**TTH:** 8:30 – 9:30, 10:45 – 11:15

Or by appointment

#### **Textbook**

Business Statistics, A First Course, Levine, Szabat, & Stephan, 8th edition, Pearson Publishing.

If you purchase the access card for the ebook version, use the link below to register your textbook and gain online access. You can also use this link to purchase the book online through Pearson:

https://console.pearson.com/enrollment/s9uqpn

If you prefer a printed format, be sure to purchase the 8th edition of the book.



### **Catalog Course Description**

Sampling theory, probability distributions, confidence levels, hypothesis testing, regression analysis, ANOVA.

## **Prerequisites**

"C" in MATH 143 Elementary Statistics or equivalent

## **Course Objectives / Learning Outcomes**

After successful completion of this course, students will be able to:

- 1. Compute descriptive and inferential statistics commonly used in business.
- 2. Apply statistical concepts to business-related cases and problems.
- Analyze statistical results to draw conclusions, solve problems, and answer questions in business.



- 4. Produce output using spreadsheet and statistical software commonly used by decision makers in business.
- 5. Prepare and present a business report that uses descriptive and inferential statistics to draw conclusions.

### **Course Outline**

The course is divided into weekly learning modules. You can find all information for each module in Canvas. Below you will find a TENTATIVE schedule. The exact dates of the exams may be changed depending on the pace we move through the material. Students will be given sufficient notice in the event of any change to the schedule.

WEEK	CHAPTER/TOPIC	WEEK	CHAPTER/TOPIC
<b>1</b> Aug. 22 – Aug. 28	Chapter 1: Defining and Collecting Data	<b>9</b> Oct. 17 – Oct. 23	Chapter 9 continued: Hypothesis Testing
2 Aug. 29 – Sept. 4	Chapter 1 continued and Chapter 3: Numerical Descriptive Measures	<b>10</b> Oct. 24 – Oct. 30	EXAM 2 Chapter 12: Simple Regression
<b>3</b> Sept. 6 – Sept. 11	Chapter 7: Sampling Distributions	<b>11</b> Oct. 31 – Nov. 6	Chapter 12 continued Simple Regression
<b>4</b> Sept. 12 – Sept. 18	Chapter 8: Confidence Interval Estimation	<b>12</b> Nov. 7 – Nov. 13	Chapter 13: Multiple Regression
<b>5</b> Sept. 19 – Sept. 25	Chapter 8 continued: Confidence Intervals	<b>13</b> Nov. 14 – Nov. 27	Chapter 13 continued: Multiple Regression
<b>6</b> Sept. 26 – Oct. 2	Chapter 8 continued: Confidence Intervals	<b>14</b> Nov. 28 – Dec. 4	<b>EXAM 3</b> Chapter 10: ANOVA
7 Oct. 3 – Oct. 9	EXAM 1 Chapter 9: Hypothesis Testing	<b>15</b> Dec. 5 – Dec. 9	Chapter 11: Chi- Square tests
8 Oct. 10 – Oct. 16	Chapter 9 continued: Hypothesis Testing	<b>16</b> Finals Week Monday, Dec. 12	EXAM 4 (FINAL EXAM)

# **Teaching Methods**

Lecture, Class Discussion, In-class Exercises: Lectures will follow the textbook and Powerpoint slides. There will also be video lectures to view on Canvas to prepare for classroom sessions. The instructor will add material to class lectures through in-class examples and problems from the textbook. Anything discussed in class is testable material. Take good lecture notes. The class lectures are designed to encourage discussion. Bring your calculator to class every day.



**Powerpoint:** Class lectures utilize Powerpoint slides. You can download the Powerpoint slides for each chapter through the CANVAS course listing. The slides provide a general outline of material, definitions of terms, and examples. While you will need to take additional notes as we move through the course material, having copies of the Powerpoint slides during class and as you watch the Canvas video lectures will make course content much more understandable.

## **Canvas**

This course is listed in the CANVAS Learning Management Suite for Pittsburg State University. You may access this system from the PSU Home Page. The course is organized into weekly modules in Canvas. Powerpoint slides, video lectures, assignments, handouts, quizzes, study guides, statistical tables, and more can be found in Canvas. It is imperative to go to our Canvas page daily to keep up with course work.

# **Course Design and Attendance Policy**

This course will implement two learning models: the **Hybrid Classroom** and the **Flipped Classroom**. Instructors can create a hybrid learning model in many ways. For THIS class, our course will operate as follows:

- Mondays and Wednesdays: Students will attend class in the classroom on Mondays and Wednesdays of each week. There will be in-class assignments on many of these days, so regular class attendance is important for you to be successful in this course. You must be in class to earn these points. If you must miss class, it is your responsibility to obtain class material, handouts, lecture notes, etc. so that you will be caught up with class upon your return. The instructor will NOT provide lecture notes or review material to students who miss class. You should obtain this information from a fellow student.
- Fridays: Students will not attend class in the classroom on Fridays. Instead, students will participate in asynchronous learning activities in an online format. This will be the "flipped classroom" element of this course delivery. The online learning will be designated as "Remote Fridays" and will normally consist of watching video lectures, submitting short (open-book, open-note) quizzes over the video lectures, and/or completing short assignments. This content can be found in each weekly module in Canvas.

**What is a Hybrid Course?** Hybrid instruction refers to classes where there is a carefully planned blend of both traditional classroom instruction and online learning activities. There are many benefits of a Hybrid course:



- A Hybrid Course can help improve writing and computer skills.
- A Hybrid Course encourages self-directed learning, time management, problemsolving, and critical-thinking skills for students.
- A Hybrid Course prepares students for the changing work environment they will enter upon graduation.

**What is a Flipped Classroom?** In this blended learning model, instructors have students interact with new material for homework first. They then use class time to discuss the new information and put those ideas into practice. Therefore, the Flipped Classroom reverses or "flips" the traditional ideas about classroom activities and homework. There are many benefits to a Flipped Classroom:

- Students can learn at a time and a place that is convenient for them.
- Students can return to the material at any time since the course content remains online.
- Students can learn at their own pace.
- Students can watch and re-watch the video lectures as often as needed, making the instruction more personalized for each student.
- Studies show that students who engage in this kind of "active learning" achieve better test performances and subject mastery (or subject knowledge).

### **Classroom Conduct**

Rules of common courtesy will apply in this class. Students shall not disturb the learning experience by disrupting class or disrespecting other students or the professor. In the case of a severe cases of courtesy disruption, a student may be dismissed from the class meeting, and/or receive an official dismissal from the course. The following will be considered violations of classroom respect and courtesy:

- Excessive tardiness
- Cell phone use (including texting)
- Lap top use for purposes other than class lectures
- Sleeping during class
- Talking or disrupting the class during lectures
- Excessively walking out during lectures
- Doing any type of work not related to our class
- Any show of disturbance or disrespect towards the professor or fellow students



# **Academic Integrity**

For all assignments, quizzes, and exams, students must work ALONE. If students appear to be working together, and/or copying materials to give to other students, they will receive a failing grade for the course.

Students are also forbidden to obtain answers or "help" from external sites such as *Chegg*, *CourseHero*, *Quizlet*, etc. The use of these types of sites as well as any type of "plagiarism" — the use of another's work without citation or attribution -- is forbidden, and will result in an F for the work, an F for the semester, and/or an XF (indicating academic dishonesty on a transcript) for the semester.

Academic honesty is fundamental to the activities and principles of a university. The work you submit should be **YOURS!** This is, after all, YOUR education. Any effort to gain an advantage not given to all students is dishonest regardless of the success or failure of the effort. Following University guidelines in response to academic dishonesty, the instructor will reward dishonesty with an F for the work, an F for the semester, and/or an XF (indicating academic dishonesty on a transcript) for the semester.

All Pitt State students are bound by the academic integrity policies of the university as described and outlined in the current Syllabus Supplement. Please familiarize yourself with these rules and guidelines. In addition, as a course offered through the Kelce College of Business, students in this class are obligated to adhere to the college's **Student Code of Ethics** as outlined below.

## Students pledge to:

- Arrive on time, remain until dismissed at all class sessions, and notify instructors in advance of anticipated absences, late arrivals, or early departures whenever possible.
- Turn off cell phones or other electronic devices while in class, unless permission to use them has been granted.
- Refrain from class disturbances.
- Refrain from use of profane or vulgar language in a threatening or disruptive manner.
- Treat fellow students, staff, faculty, administrators, and property with respect.
- Refrain from giving or receiving inappropriate assistance.



- Prepare assignment and exams honestly, refraining from such unacceptable conduct as plagiarism or unacknowledged appropriation of another's work in any academic work.
- Obey the policies, regulations, and laws of the United States of America, the State of Kansas, The Kansas Board of Regents, Pittsburg State University, and the Gladys A. Kelce College of Business.
- If a student observes someone committing dishonesty in connection with academic work, the student is encouraged to report that dishonesty to the appropriate individual (ex, faculty member, or administrator).

# **Kelce College of Business Student Oath**

The Kelce College of Business Student Oath was written and approved by the Kelce Student Leadership Council. All Kelce College of Business students must abide by this oath:

"I affirm to uphold the values of honesty and integrity in all my actions as a student in the Kelce College of Business. I will neither give nor receive any unauthorized aid in the completion of my work as this undermines our community of trust, of which we are all stewards."

#### Students with Disabilities

Please inform the instructor if you have a learning or physical disability that interferes with course requirements. Assistance and/or appropriate accommodations may be available through the contacts listed on the current <u>SYLLABUS SUPPLEMENT</u>.

#### **Course Evaluation Methods**

**Syllabus Quiz:** There is a quiz over the course syllabus that you will take online via Canvas. This quiz is worth 10 points.

**Exams:** There are 4 exams. Exams consist of true/false and multiple-choice questions and problems. You will be allowed one index notecard (3" X 5") for formulas and notes for the classroom exams.

**In-Class Assignments:** There will be problems worked in class that will be turned in for credit at the end of the class period. Regular class attendance is important to earn these points.

**Homework:** On occasion, depending on the complexity of the material being covered in class, a homework assignment may be given in class that will be turned in for credit the class period. The frequency and points for this homework will vary.



Remote Friday Activities/Video Lecture Quizzes: As mentioned earlier in this syllabus, "Remote Fridays" will require online learning activities in place of attending class in the classroom. Students will watch a series of short video lectures. After watching the videos, students will submit quizzes that relate to the material presented in the videos. The quizzes are open-book and open-note. Classroom time will consist of problems, exercises, discussions, and case studies that relate to the video lectures. It is imperative that you watch the video lectures and complete the video lecture assignments so that you can get the most out of class and keep up with the pace of this course.

GRADING SCALE: The following scale will be used to determine final grades:

91%-100% of total points possible = A 81%-90% of total points possible = B 71-80% of total points possible = C 61-70% of total points possible = D

60% and below of total points possible = F

## **GRADE CALCULATION:**

Syllabus Quiz (online via Canvas): 10 points possible

**Exams:** 4 Exams, 375 total points possible

**In-Class Assignments and Homework**: approximately 150 -200 points possible approximately 150 – 200 point possible

## THERE ARE NO EXTRA CREDIT POINTS AVAILABLE FOR THIS COURSE.

The instructor will not go back at the end of the semester and re-grade earlier assignments.

**TECHNOLOGY REQUIREMENTS:** Due to the Hybrid course design, there are important technology requirements. All students must have access to:

- A laptop or desktop computer. (You cannot take online quizzes with a tablet, Chromebook, or smartphone.)
- Reliable internet connection.
- Powerpoint and Microsoft Word software



## OTHER MATERIALS REQUIRED:

- For each exam, you will need a #2 pencil and a Scantron answer sheet (Forms No. 882-ES or 884-ES) for each exam. You are also allowed a 3X5-inch notecard for formulas or other notes.
- For each class period and exam, you will need a calculator, preferably one with a standard deviation function. You are responsible for understanding the operations of your calculator. You may not share calculators for quizzes or exams. You may not use your cell phone as a calculator.

## **MAKE-UP POLICY:**

- 1. If you must miss a quiz, assignment, or an exam **due to illness**, you may make up the work only if the following conditions are met:
  - Notify the instructor of your illness BEFORE the exam, quiz or assignment due date.
  - Provide the instructor with an explanation of your illness written by your medical doctor or Student Health Services.
- 2. If you must miss a quiz, assignment, or an exam due to other reasons besides illness (i.e. work, family emergency, school activities, etc.), it is up to the discretion of the instructor as to whether or not you will be allowed to make up the work. You MUST contact the instructor BEFORE the exam, quiz, or assignment due date to gain permission to make up the work. Failure to notify the instructor BEFORE the missed class/due date will result in a missed opportunity to make up the work.
- 3. If a student does not follow the guidelines stated above, the student may be allowed to make up the work, but a grade penalty will be assessed. Standard deductions are as follows:
  - For EXAMS, 10% grade deduction for each day (24 hours) past the original date of the exam. All exams must be taken within 48 hours of the regularly scheduled exam. After 48 hours, a zero will be recorded for the exam score. COVID-related exceptions to this rule will be allowed.
  - FOR QUIZZES AND ASSIGNMENTS: 50% grade deduction for each day (24 hours) past the original due date of an assignment or quiz. All quizzes and assignments must be submitted within 48 hours of the original due date. After 48 hours, a zero will be recorded for the score. COVID-related exceptions to this rule will be allowed.



A COVID-related illness is a special circumstance and will be given special consideration for makeup work. DO NOT attend class if you are experiencing symptoms common of COVID. However, students are still required to follow the guidelines above regarding contacting the instructor about your class absence and the reason for this absence. Without proper communication, it is difficult to allow for makeup work to take place.

The instructor reserves the right to amend and to reorganize this syllabus at any time.