



Introduction to Business Statistics

52:135:214:90

Term: Fall 2024

Instructor: Jinho Kim, Ph.D.

E-mail: jinhokim@rutgers.edu

Online Office Hours via Zoom: By appointment

Office : Distance Learning

Class meetings : Distance Learning

Key Fall 2024 Dates :

Fall 2024 classes begin

Last day to withdraw with a "W"

Last day of classes

Final Exam period

Tuesday, September 3rd

Monday, November 11th

Wednesday, December 11th

Monday, December 16th - Saturday, December 21st

Course Description

This course presents the fundamentals of statistics, emphasizing statistical thinking, which is scientific reasoning—trying to understand the way the world works by gathering and modeling data. This introductory course in business statistics focuses on applications of data analysis and statistics in business.

Topics covered include descriptive statistics and graphical presentation, probability, statistical inference, and simple regression analysis.

This online course is designed to provide a variety of learning experiences and opportunities. Class activities will include some or all of the following: videos, class discussion, lecture, exams, and group exercises. In order for you to maximize your learning experience, you will need to prepare by reading the assigned material and completing assigned. Lecture coverage of textbook material will be brief, and is intended to introduce you to the principles, theories, concepts, and techniques, rather than to substitute for your independent study of the assigned material.

Course Learning Objectives

Upon successful completion of this course, students should be able to understand:

1. Data and Decisions
2. Displaying and describing categorical data
3. Displaying and describing quantitative data
4. Correlation and regression analysis
5. Randomness and probability
6. Random variables and probability
7. Normal and other continuous distributions
8. Surveys and sampling
9. Sampling distributions and confidence intervals for proportions
10. Testing hypotheses about proportions

11. Confidence intervals and hypotheses tests for means

School of Business-Camden Program Learning Goals

- Communication effectiveness and impact
- Technology fluency,
- Global awareness,
- Ethical consideration

Course Materials:

TEXTBOOK:

The required text for this course is:

Business Statistics (4th ed.), by Sharpe, De Veaux, and Velleman, Pearson, 2019.
ISBN-13: 9780134705217

Students are **required to purchase MyLab** access (see below), which includes the eText/eBook.

Access and purchase of these materials needs to happen through the Canvas course space. See Accessing eBook and MyLab under Course Dashboard for instructions.

NOTE: There is no need to purchase the hard copy textbook. Your MyLab access includes your access to the eText. If you feel you need a hard copy to study, that is at your own expense and can be purchased at the University Bookstore.

Accessing the eText and MyLab Materials

To initiate access of the materials:

1. Click "Access Pearson" link on the left side of the course homepage. Also, go to any links to the eBook or to any of the MyLab materials in this course (e.g., ML Homework or Tools for Success) in Course Home, or links to these items in any of the numbered course modules.
2. You will be prompted to accept the user agreement and privacy policy, and then you will be prompted to select your access option:
 - Select "Buy Now," then select the link to purchase the text and MyLab.
3. Note that you will only have to do this the first time you access the materials.

For access codes or access issues, please contact Online Student Support
onlinestudentsupport@docs.rutgers.edu.

COMMUNICATION and USE OF CANVAS

EMAIL- USE YOUR RUTGERS EMAIL ADDRESS

All communications to students will be done using the Rutgers email address provided to you. Please forward your Rutgers email to your personal email if necessary.

Not checking your Rutgers email is not an excuse for missing any communications.

CANVAS

Canvas is the learning management system used for this course. Posted will be the syllabus, resources, Power Point slides, announcements, guides, etc. To access this system, go to <http://canvas.rutgers.edu> log in, and click on the course in the dashboard. For technical support 833-648-4357 or help@camden.rutgers.edu.

Class Materials:

All class materials can be obtained via Canvas. Note that the PowerPoint class materials for a particular week will be posted by noon on Tuesday, usually one week ahead of schedule (except for the first week or two.) You are strongly encouraged to access this course via Canvas several times a week.

Professor Communication:

Note that during the week, from Monday until Friday, I will try reply to all e-mails within 24 hours. Please do not expect immediate response. If you do not hear from me within 48 hours, please re-send your email as I may have overlooked or accidentally deleted your e-mail.

Although, I check my e-mails a few times daily, I may not be able to completely answer all e-mails immediately upon receiving them. Note that I may also be travelling out of town on many weekends and may not be able respond to weekend e-mails until Monday.

Disability Services/Accommodations

The University is committed to supporting the learning of all students and faculty will provide accommodations as indicated in a Letter of Accommodation issued by the Office of Disability Services (ODS). If you have already registered with ODS and have your letter of accommodations, please share this with me early in the course. If you have or think you have a disability (learning, sensory, physical, chronic health, mental health or attentional), please contact <https://success.camden.rutgers.edu/disability-services>.

Accommodations will be provided only for students with a letter of accommodation from ODS. Their services are free and confidential. Letters only provide information about the accommodation, not about the disability or diagnosis.

Academic Integrity

The Academic Integrity policy can be found at <http://studentconduct.rutgers.edu/student-conduct-processes/academic-integrity/>

Students are responsible for understanding the principles of academic integrity and abiding by them in all aspects of their work at the University. Students are also encouraged to help educate fellow students about academic integrity and to bring all alleged violations of academic integrity they encounter to the attention of the appropriate authorities.

Academic Integrity means that you (the student) must:

- properly acknowledge and cite all use of the ideas, results, or words of others,
- properly acknowledge all contributors to a given piece of work,
- make sure that all work submitted as your own in a course activity is your own and not from someone else
- obtain all data or results by ethical means and report them accurately
- treat all other students fairly with no encouragement of academic dishonesty

Adherence to these principles is necessary in order to ensure that:

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments
- all student work is fairly evaluated and no student has an inappropriate advantage over others
- the academic and ethical development of all students is fostered
- the reputation of the University for integrity is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld. Violations are taken seriously and will be handled according to University policy.

Artificial Intelligence Use

Neither the university nor the school has a standard policy on the use or non-use of artificial intelligence

(Chat GPT, etc). Below are some language samples depending on your self-determined policy of AI use in the classroom.

Use Prohibited

The use of generative AI tools (such as ChatGPT, DALL-E, etc.) are not permitted in this class; therefore, any use of AI tools for work in this class may be considered a violation of Rutgers University's Academic Honesty policy and Student Conduct Code, since the work is not your own. When in doubt about permitted usage, please ask for clarification.

Acceptable and Unacceptable Use of AI

The use of generative AI tools (e.g. ChatGPT, Dall-e, etc.) is permitted in this course for the following activities:

- Brainstorming and refining your ideas;
- Fine tuning your research questions;
- Finding information on your topic;
- Drafting an outline to organize your thoughts; and
- Checking grammar and style.

The use of generative AI tools is not permitted in this course for the following activities:

- Impersonating you in classroom contexts, such as by using the tool to compose discussion board prompts assigned to you or content that you put into a Zoom chat.
- Completing group work that your group has assigned to you, unless it is mutually agreed upon that you may utilize the tool.
- Writing a draft of a writing assignment.
- Writing entire sentences, paragraphs or papers to complete class assignments.

You are responsible for the information you submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content). Your use of AI tools must be properly documented and cited in order to stay within university policies on academic honesty. Any assignment that is found to have used generative AI tools in unauthorized ways based on guidelines in this syllabus, will be subject to report of a violation of Academic Integrity and thus the appropriate adjudication. When in doubt about permitted usage, please ask for clarification.

Student Code of Conduct

Rutgers University-Camden seeks a community that is free from violence, threats, and intimidation; is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and does not threaten the physical or mental health or safety of members of the University community, including in classroom space.

As a student at the University you are expected adhere to the Code of Student Conduct.

To review the code, go to the Office of Community Standards:

<https://deanofstudents.camden.rutgers.edu/student-conduct>

Note that the conduct code specifically addresses disruptive classroom conduct, which means *"engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."*

CLASSROOM POLICIES

Exam Make-up Policy/Late Policy

If, for a university approved reason, you cannot take an exam at the scheduled time you must give the professor written **notice at least one week in advance** so that other arrangements can be made. If the situation does not allow for advance notification (for example, emergency hospitalization), contact the

professor as soon as possible after a missed exam. Make-up exams for non-university approved reasons are not guaranteed. The professor reserves the right to request written documentation to support your absence (such as a doctor's note, an obituary, or military orders).

Assessments

ASSIGNMENTS: All assignments except reading assignments have **one-week grace period with 30% penalty**, meaning you do not need to ask for permission to submit a week late. After one-week grace period, you will get zero grade without prior notification and a physician's excuse. If you need help with any assignments, please email me or visit my online office hours.

EXAM: The exams will be provided via **McGraw-Hill Connect**. Students are reminded to adhere to the university's academic integrity policy. Any violations to academic integrity policy may result in receiving a failure for the course.

Exam Policy: No makeup exams will be scheduled without prior notification and a physician's excuse.

CLASS PARTICIPATION: It is expected that you will (1) visit Canvas homepage regularly every week, (2) watch lecture videos and study course materials attentively, and (3) contribute often to class discussions. Your in-class comments should be thoughtful and should reflect your careful reading of the assigned course material.

Incompletes and Problems Policy: If you find that you are having trouble completing course work or need further explanation of class topics, please schedule an appointment with me immediately. If you need this class for graduation, you should be sure that your performance is up to standard throughout the course. It is too late to wait until the last week of classes to ask for help. I'm available to meet throughout the entire semester if you need help. "Incompletes" will only be given through prior consultation, under extreme circumstances.

DISCUSSION BOARD ACTIVITY: There will be discussion board activities in this course. Discussions may involve any combination of prepared materials, journal articles, textbook readings, videos, or other resources each week.

Students are expected to create at least one Discussion Thread by Day 4 (Friday) of each week that a Discussion topic is assigned and then by Day 7 (Monday) have responded to at least two other posted threads by other students in the class. All postings including responses are to be substantive and further the discussion of the topic of interest.

Postings on the discussion board must reflect student's reading and comprehension of the assigned readings and/or related discussion activity. Discussion postings must reflect the ability to synthesize concepts presented through writing at a college level. The minimum length of a post is 100 words not including references or direct quotes (references required for each posting).

GRADING

The assignment of final grades, the course requirements will be weighted approximately as follows:

First Exam	20%
Second Exam	20%
Final Exam	25%
Assignments	25%
Class Participation.....	10%

Final Grade Ranges

A Highest grade (89.5% and above)
B+ Work of distinction (84.5% to 89.4%)
B Work of distinction (79.5% to 84.4%)
C+ Average work (74.5% to 79.4%)

C Average work (69.5% to 74.4%)
D Passing, but unsatisfactory (60% to 69.4%)
F Failure without credit (Below 60%)

COURSE OUTLINE AND ASSIGNMENTS

Listed below are the **tentative** topics to be covered each week. Note that these topics may be subject to change and any changes in topics will be announced via Announcement in Canvas. *Due dates imply deadline of 11:59 p.m. All times are Eastern Standard.*

Module	Readings	Assignments / Assessments	Due Dates
1	Chap 1 Lecture, PowerPoint, Videos	Set-Up MyLab MyLab: MyLab Orientation: Student Orientation Chap 1: Data and Decisions Canvas: Discussion Module 1: Student Introductions	Monday 9/09
2	Chap 2 Lecture, PowerPoint, Videos	MyLab: Chap 2: Visualizing and Describing Categorical Data Canvas: Assignment for (Chap 1-2)	Monday 9/16
3	Chap 3 Lecture, PowerPoint, Videos	MyLab: Chap 3: Describing, Displaying, and Visualizing Quantitative Data Canvas: Assignment for Chap 3	Monday 9/23
4	Chap 4 Lecture, PowerPoint, Videos	MyLab: Chap 4: Correlation and Linear Regression Canvas: Assignment for Chap 4	Monday 09/30
5	Midterm 1 Exam Lecture, PowerPoint, Videos	Midterm (Chap 1-4) Opens Tuesday at 9:00am and closes Monday at 11:59pm	Monday 10/7
6	Chap 5.1-5.5 Lecture, PowerPoint, Videos	MyLab: Chap 5: Randomness and Probability I Canvas: Assignment for Chap 5	Monday 10/14
7	Chap 6 Lecture, PowerPoint, Videos	MyLab: Chap 6: Random Variables and Probability Models Canvas: Assignment for Chap 6	Monday 10/21
8	Chap 7 Lecture, PowerPoint, Videos	MyLab: Chap 7: Normal and Other Continuous Distributions Canvas: Assignment for Chap 7	Monday 10/28
9	Chap 8 Lecture, PowerPoint, Videos	MyLab: Chap 8: Data Sources: Observational Studies and Surveys Canvas: Assignment for Chap 8	Monday 11/04
10	Midterm 2 Exam Lecture, PowerPoint, Videos	Midterm (Chap 5-8) Opens Tuesday at 9:00am and closes Monday at 11:59pm	Monday 11/11
11	Chap 9	MyLab: Chap 10: Sampling Distributions and Confidence Intervals for Proportions	Monday 11/18

	Lecture, PowerPoint, Videos	Canvas: Assignment for Chap 10	
12	Chap 11 Lecture, PowerPoint, Videos	MyLab: Chap 11: Confidence Intervals for Means Canvas: Assignment for Chap 11	Monday 11/25
13	Chap 12 Lecture, PowerPoint, Videos	MyLab: Chap 12.1 – 12.3: Testing Hypotheses Canvas: Assignment for Chap 12.1-12.3	Monday 12/02
14	Chap 12 Lecture, PowerPoint, Videos	MyLab: Chap 12.4 – 12.6: Testing Hypotheses Canvas: Assignment for Chap 12.4-12.6	Monday 12/09
15	Final Exam Review	Reading Day(s): 12/10 – 12/15	
16	Final Exam	TBA	