



Spring 2024
BUS/ECON 309 Quantitative Foundations for Business (3 credits)

Instructor: Yeawon Yoo, Ph.D.

Contact: You can reach me at yeawon.yoo@csuci.edu. (Please make sure to include the tag [BUS/ECON 309] in the subject line of your email. I will do my best to respond to you within 24-48 hours. However, for course-related questions, I encourage you to utilize Canvas Discussion before contacting me directly, unless the matter is of a personal nature.)

Office Location: MVS Hall 2112

Office Hours: Tue/Thu 10:30 am - 12 pm (in-person and [Zoom](#)) and by appointment

Course Description: This course reinforces and synthesizes quantitative skills developed in the lower division to ensure high levels of competence. Students polish and apply these skills to examples from core business disciplines both from previous lower division classes as well as upcoming major requirements.

Prerequisites: ACCT 210, ACCT 220, BUS 111, ECON 110, ECON 111 and MATH 201; and MATH 140 or MATH 150; all prerequisites must be completed with a C- or better. Some use of Python, but no prior computing experience is necessary. The course employs a **flipped classroom format**, where instructional videos are provided for pre-class learning. During class sessions, we will delve into hands-on exercises.

Program Learning Goals:

- (1) Critical thinking
- (2) Oral communication
- (3) Written Communication
- (4) Conduct (Ethics)
- (5) Competencies in discipline
- (6) Collaboration

Student Learning Outcomes (SLOs):

- (1) Use algebra to solve challenges in abstract and applied settings
- (2) Use derivatives to find local/global maxima and minima in abstract and applied settings
- (3) Create accurate and compelling graphs and tables for business applications
- (4) Interpret graphs and tables in business applications
- (5) Analyze information using calculators and software applications

Textbook: No textbook purchase is required. The course will utilize the following open-access textbook.

- [Introductory Business Statistics](#)
- David M Diez, Christopher D Barr, Mine Çetinkaya-Rundel (2015) [OpenIntro Statistics](#)
- [Online Statistics Education: An Interactive Multimedia Course of Study](#)

Tentative Course Outline:

Week 1 (1/23) Lec 1. Introduction to the Course	(1/25) Lec 2. Algebra Review I
Week 2 (1/30) Lec 3. Algebra Review II	(2/1) Lec 4. Calculus Review I
Week 3 (2/6) Lec 5. Calculus Review II	(2/8) Lec 6. Data and Graph I
Week 4 (2/13) Lec 7. Data and Graph II	(2/15) Lec 8. Data and Graph III
Week 5 (2/20) Lec 9. Random Variables and Distributions I	(2/22) Lec 10. Random Variables and Distributions II
Week 6 (2/27) Lec 11. Random Variables and Distributions III	(2/29) Lec 12. Random Variables and Distributions IV
Week 7 (3/5) Lec 13. Hypothesis Testing I	(3/7) Lec 14. Hypothesis Testing II
Week 8 (3/12) Review for Midterm	(3/14) Midterm
Week 9 (3/19, 3/21) Spring Recess	
Week 10 (3/26) Hypothesis Testing III	(3/28) Lec 16. Hypothesis Testing IV
Week 11 (4/2) Lec 17. Hypothesis Testing V	(4/4) Lec 18. Hypothesis Testing VI
Week 12 (4/9) Lec 19. Hypothesis Testing VII	(4/11) Lec 20. Hypothesis Testing VIII
Week 13 (4/16) Lec 21. Regression I	(4/18) Lec 22. Regression II
Week 14 (4/23) Lec 23. Regression III	(4/25) Lec 24. Regression IV
Week 15 (4/30) Lec 25. Regression V	(5/2) Lec 26. Regression VI
Week 16 (5/7) Lec 27. Regression VII	(5/9) Review for Final

Grading Policy: Your grades will be weighed as:

- Midterm (25%), Final (25%), Project (25%), Quizzes (25%)
- The **two lowest** quiz scores will be dropped.
- Class attendance is NOT mandatory because I trust your maturity as a learner. However, I strongly recommend active participation in every session for an optimal learning experience and the potential for an enhanced grade. Many assignments and exam questions will closely align with the problem sets discussed in class. Additionally, there will be periodic **in-class quizzes** to reinforce your understanding of the material.
- Active participation in the Canvas discussion, including answering other students' questions, will be rewarded with bonus points. Engaging in collaborative discussions on the platform will enhance your overall learning experience and contribute to a more dynamic and interactive class environment.
- The following scale, based on the final class percentage calculated according to the weights above, will be used:
 - 100% or higher (A+), 93-99.9% (A), 90-92.9% (A-)
 - 87-89.9% (B+), 83-86.9% (B), 80-82.9% (B-)
 - 77-79.9% (C+), 73-76.9% (C), 70-72.9% (C-)
 - 67-69.9% (D+), 63-66.9% (D), 60-62.9% (D-), 59.9% (F)

Make-up Policy: There will be no make up exams or quizzes except for the event of a university-approved absence on the day of the exam. Unapproved absences on the day of the exam will result in a score of 0. You must notify your instructor with your official excuse, before the date and time of the exam. If you have to miss an exam for an unforeseen reason, such as emergency, you must let me know as soon as you can, preferably within 24 hours of the missed examination.

Regrade requests for exams: I endeavor to grade the exams in a timely manner and return the graded exams to you in the following week. Every effort is made to grade exams accurately. However, if you notice an error in the grading and wish to request a regrade, you must send me an email about which problems you think are inaccurately graded and why, **within 3 days in which the graded exam is returned (the date that the graded exam is returned is counted as Day 0)**. **No late regrade requests will be accepted.** Note that the requests can result in a grade that is lower, equal, or higher.

Guidelines for the Acceptable and Unacceptable Use of AI: In this course, the utilization of generative AI tools (e.g., ChatGPT, etc.) is authorized for certain circumstances with citation (see [how to cite ChatGPT](#)).

- Permissible Use:
 - Writing an email
 - Employing AI tools for brainstorming and refining your ideas
 - Using AI tools to locate information relevant to your chosen topic (but, you need to check if the information is correct/real or not)
 - Verifying and enhancing grammar as well as writing style using AI tools
- Prohibited Use:
 - Drafting (=actually writing the words of the paper) an outline to systematically structure your thoughts and ideas
 - Using AI tools to write any of the assignments

Academic Honesty: Academic integrity is the responsibility of all members of the CSUCI community. We, as members of the university community, share equally in the responsibility to ensure that the honor code instills self-respect; fosters scholarship and achievement; builds habits of honesty; promotes ethical behavior; inspires mutual fellowship and respect; and confers prestige on California State University Channel Islands and members of the university community. All university community members should be familiar with the Honor code. Students share with faculty and staff the responsibility of sustaining a climate of integrity. These values are to be maintained at all times. In this course, you must be honest and truthful. Ethical violations include **cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, and facilitating academic dishonesty**. In addition, I encourage collaboration on homework assignment with your friends, colleagues and/or teaching assistants. This is an important part of your learning. However, whatever work you collaborate on must be thrown away before you write up your own solutions – this is to assure that the work you submit is your own. Lack of knowledge of [the academic honesty policy](#) is not a reasonable explanation for a violation. Report any violations you witness to the instructor.

Disability Statement: If you are a student with a disability requesting reasonable accommodations in this course, please visit Disability Accommodations and Support Services (DASS) located on the second floor of Arroyo Hall, or call 805-437-3331. All requests for reasonable accommodations require registration with DASS in advance of need. You can apply for [DASS services online](#). We will work together regarding classroom accommodations.

Resources and Support:

- Writing and Multiliteracy Center (WMC): WMC provides all CI students with FREE support services and programs that help them become more effective writers and communicators. Peer tutors help students on a range of assignments at any stage of the composition process in all disciplines. Students visit the WMC with assignments such as expository essays, literature review, lab reports, marketing reports, legislative testimonials, oral presentations, research posters, short video projects, and many more. Students are also welcome to bring in other types of non-academic work such as resumes, letters of application, and personal statements for graduate school applications. Make an [appointment](#), or drop by our Virtual WMC to ask questions or see if a tutor is available. To learn more or see our additional resources for writers and presenters, visit [WMC](#). You can also email them at wmc.tutors@csuci.edu.
- Counseling and Psychological Services (CAPS): CAPS is pleased to provide a wide range of services to assist students in achieving their academic and personal goals. Services include confidential short-term counseling, crisis intervention, psychiatric consultation, and 24/7 phone and text support. CAPS is located in Bell Tower East, 1867 and can be reached at 805-437-2088 (select option 2 on

voicemail for 24/7 crisis support; or text “Hello” to 741741); you can also email at caps@csuci.edu or visit the [CAPS website](#).

- **Basic Needs Program (BNP):** If you face challenges securing food, housing, or other basic needs, you are not alone, and CSUCI wants to help during this time of crisis. One helpful resource is the community of staff available through the Basic Needs Program (BNP) located on the first floor of Arroyo Hall, Room 114. Students can call 805-437-2067, email basicneeds@csuci.edu, or drop in during open hours and talk with a BNP student assistant or professional staff member for resources, ideas, and strategies connected to basic needs challenges. Students can complete a referral form to request services for themselves or others by going to www.csuci.edu/basicneeds. The BNP is known for the Dolphin Pantry located at Arroyo Hall 114, but there are other resources available and staff who can help you work through housing insecurity or displacement as well as financial insecurity. Undergraduate students living in California are especially encouraged to explore CalFresh (grocery money each month for eligible students) as a resource. Domestic undergraduate students living in California are likely to be eligible for CalFresh and BNP staff are skilled with helping students navigate this process.

Copyrighted Content: Course content, including lectures, are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course. You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student’s original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

Title IX and Inclusion: Title IX & Inclusion manages the University’s equal opportunity compliance, including the areas of affirmative action and Title IX. Title IX & Inclusion also oversees the campus’ response to the University’s nondiscrimination policies. CSU Channel Islands prohibits discrimination and harassment of any kind on the basis of a protected status (i.e., age, disability, gender, genetic information, gender identity, gender expression, marital status, medical condition, nationality, race or ethnicity, religion or religious creed, sexual orientation, and Veteran or Military Status). This prohibition on harassment includes sexual harassment, as well as sexual misconduct, dating and domestic violence, and stalking. For more information regarding CSU Channel Islands’ commitment to diversity and inclusion or to report a potential violation, please contact Title IX & Inclusion at 805.437.2077 or visit the Title IX website.

Disclaimer: Information contained in this syllabus, other than that mandated by the University, may be subject to change with advance notice, as deemed appropriate by the instructor.