

Frameworks for Business Problems II
BCOR 2030-004, Spring 2023

Instructor:	Aubrey Bullough
E-mail:	aubrey.bullough@eccles.utah.edu <i>Please note that I do not answer emails on Sunday.</i>
Class Format:	Asynchronous Online Class
Canvas:	https://utah.instructure.com/courses/877585
Webinar time:	TBD
Office Hours:	By appointment via Zoom
Tutoring Center:	https://eccles.utah.edu/sea/business-tutoring-schedules/#schedule
Communications:	Canvas Announcements. Please set Canvas notifications to “ Notify Immediately ” to get the most up-to-date information.

I will use the Canvas system to schedule events on the calendar and send out announcements during the semester. You are responsible for all communication sent in this way. I recommend that you update your Canvas settings to receive immediate notifications, or at the very least daily reports, of any announcements, assignments, changes to the class materials, etc.

Required Materials:

- Camm et.al. (2021), [*Business Analytics*](#), 4th Edition, Cengage Learning. *This is the same textbook that was required in BCOR 2020 so hopefully you are subscribed to Cengage Unlimited (<https://www.cengage.com/unlimited/>).*
- MindTap for the text above.
- Course Notes and video lectures available through Canvas.
- Packback (inclusive access): You should have received an email to your Umail account. If you don't see it, instructions are posted [below](#).

Time Expectations

A University credit hour represents approximately three clock hours of your time per week for one semester (Policy 6-100-III-B). For a three-credit-hour course, therefore, this breaks down to **150 minutes in class and about six hours outside of class per week for the entire semester** (Policy 6-100-III-C). Your time outside of class should be spent watching videos, reading announcements (more below), practicing problems, and doing homework, quizzes and exams.

If you don't feel like you have time to dedicate to the class at this time, please make time or take the class again in a different semester.

Course Description:

This course is a continuation of Business Problems I and is designed to present you with real problems of the type you are likely to encounter in the business world and to provide you with the tools and concepts you can use to address those problems. Course topics include a review of critical thinking and data collection methods, probability and probability distributions, sampling, statistical inference, regression and predictive analytics. Case studies will again be incorporated throughout the class to emphasize application of course to real business situations and to integrate topics.

Course Learning Objectives

An important aspect of business leadership is the ability to define and solve many types of problems. Inherent in the problem-solving process is the task of decision making. The best decisions are those that are data-driven. The overarching objectives of this class are to prepare you to think critically about business problems and to know how to analyze data and interpret the analysis. In particular, we will work on the following goals:

1. Learn to think critically by identifying and framing problems, by recognizing errors in reasoning, sources of biases and fallacies and errors of truth, and by differentiating between opinions and facts.
2. Be familiar with a few problem-solving frameworks, including Six Sigma and a subset of its tools.
3. Understand the importance of proper sampling and know the basics of random sampling to have representative data with which to make decisions.
4. Compute and interpret marginal, joint and conditional probabilities using frequency data.
5. Visualize discrete probability distributions and compute their expected values and standard deviations.
6. Calculate probabilities and percentiles from normal distributions.
7. Understand the differences between a sample and a population.
8. Make inferences, using confidence intervals and hypothesis testing, about means and proportions from data exhibiting variation.
9. Relate random variables together using scatter plots, correlation and regression. Use regression models to make predictions and decisions.
10. Implement statistical analyses on a computer and understand the resulting output.

Methods of Instruction:

This is an asynchronous online course, meaning that we will not meet together at a scheduled time to learn the material of the course. Instead, you will watch video lectures at your convenience. We will have deliverables due most weeks, so it is very important that you stay caught up with the videos and assignments.

I will have one “live” hour on Zoom where you can join to ask questions and see examples. These webinars are not required, but I highly recommend that you either attend live or watch the recordings. I will often offer hints for solving problems on your assignments, quizzes, and exams, so the webinars are generally well worth your time.

Practice, Practice, Practice!

Working problems will be essential to you learning the material. In most cases, we will utilize spreadsheet software (Excel) to analyze data. Through a variety of lectures, demonstrations, problem solving exercises and discussions, together with homework assignments and case analyses that ask you to apply the material discussed, you should develop a deeper understanding of business problems and solution methods.

Assignments, Testing, and Participation:

Homework and Cases	25%
Quizzes	20%
Exams (3 at 15% each)	45%
Packback Participation	10%

Extra Credit: I do not plan to offer any extra credit in this class. If you do poorly on an exam or assignment, your best course of action is to do better on the next set of requirements.

Homework: Homework will be assigned regularly to allow you to practice and learn the concepts and methods discussed in class. Homework assignments will generally be done using MindTap, which allows you an unlimited number of attempts on all homework questions.

You can work as teams on homework assignments but must submit answers individually. All assignments are usually **due on Saturday nights at 11:59 pm** as posted in Canvas and MindTap. If you know ahead of time that you will have difficulty meeting an assignment deadline, notify me as soon as possible. I may be willing to make exceptions on a case-by-case basis. **Under normal circumstances, a 50% late penalty will be imposed on work submitted past the due date and time.**

When using computers and technology, technical difficulties often arise. Please plan for this possibility and complete your work before the due date! Any excuses for late submissions due to such reasons will incur a late penalty. Please also test to ensure that all of your answers are correct before making your final submission. After the due date, no resubmissions (retakes) for full credit are allowed.

Case Analyses: Cases may be used to expose you to actual business problems. You will be asked to put yourself in the position of the decision maker of the case to identify the problem, analyze the situation (including analyzing the appropriate data) and make a decision based on your analysis.

Quizzes: Quizzes will be given regularly and will be administered through Canvas. All quizzes will be timed. They will be open-book, open note and you can work on them with others. Please keep in mind, however, that there are different versions of the questions, so the possibility that you have the same version of the quiz as someone with whom you are working is very close to 0. In the past,

students have reported that trying to work with others caused them to work too slowly and not finish the quiz on time. (The same caution applies to the fact that the quizzes are open-book, open note; if you are spending time looking through your notes and the text for each question, you are unlikely to finish on time.)

Quizzes will be based on the video lectures, homework, and in-class discussions. If you work actively on homework assignments, you should do well on the quizzes. I will drop the lowest quiz score. **Quizzes will generally be released on Saturday mornings and are due on Monday nights by 11:59 PM.**

Exams: Three exams will be given to assess your understanding of the concepts and tools of the class. As with the quizzes, exams will be administered through Canvas and will be open-book, open note. Exam 3 is not comprehensive, though some of the concepts build on each other throughout the semester. While you are allowed to work together, many students find it to be counterproductive since each student will receive their own version of the exam meaning you likely won't have many of the same questions.

Reading Assignments and Course Notes: The reading assignments (shown in the tentative schedule) are meant to be supplementary (and in some cases complementary) to the notes. I will not test you on the reading; instead, you can use the material in the text to reinforce what I present. My lectures use PowerPoint files, which I will make available to you. I will refer to those files on the video lectures, so it may be helpful to have them handy, either in electronic or hard-copy form.

Packback Questions:

Participation on the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online community where you can be fearlessly curious and ask open-ended questions to build on top of what we are covering in class and relate topics to real-world applications. Your participation on Packback will count toward 10% of your overall course grade.

Packback Requirements:

There will be a Weekly Saturday at 11:59PM MST deadline for submissions. In order to receive full credit, you should submit the following per each deadline period:

- 1 open-ended Question every week with a minimum Curiosity Score of 60, worth 10pts of each assignment grade
- 2 Responses every week with a minimum Curiosity Score of 60, worth 10pts (5pts each) of each assignment grade

Half credit will be provided for questions and responses that do not meet the minimum curiosity score.

How to Register on Packback:

Only access Packback through **Canvas** in order to ensure your grades sync properly.

1. Click the Packback assignment link **within Canvas** to access the community
2. Follow the instructions on your screen to finish your registration.

Packback may require a paid subscription. Refer to www.packback.co/product/pricing for more information.

How to Get Help from the Packback Team:

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co. If you need more help, contact their customer support team directly at help@packback.co.

For a brief introduction to Packback Questions and why we are using it in class, watch this video: <https://www.youtube.com/watch?v=OV7QmkrD68>

Grading Scale: I intend to use the following scale to assign grades.

93%-100%	A	73%-under 77%	C
90%-under 93%	A-	70%-under 73%	C-
87%-under 90%	B+	67%-under 70%	D+
83%-under 87%	B	63%-under 67%	D
80%-under 83%	B-	60%-under 63%	D-
77%-under 80%	C+	0%-under 60%	E

Please note that it is not a policy to round the grades up to the nearest percentage. For example, a 92.9% is an A- grade. Some curving may occur at the end of the semester.

Computer and Calculator Information:

Excel: In many class sessions, we will use spreadsheet software (Excel). It will be helpful to follow along with examples and to practice. See Canvas for a link where you can get the Microsoft Suite for free as a student.

Calculators: In this class, we will not make extensive use of calculators, although you may find them helpful. In subsequent classes in the Eccles School, you will need to use an HP 10bII+ calculator to make computations when software is not available. This calculator has financial, scientific, and statistical functions, does not have wireless, and can be purchased for under \$30.

Canvas: I will use Canvas to provide you with access to several electronic course resources. I will also communicate with you using the Canvas email, discussion boards and announcement resources. Please review your notification preferences in Canvas so that you receive notifications from the class daily. Also, please refer to the course modules in Canvas and on the syllabus for details regarding the flow of the class, including when and where to submit your assignments. In order to access Canvas, you need to have an active University Network ID (UNID). For more

information, go to <https://guides.instructure.com/> and click on the student-guide links that are pertinent to you. A good starting place is the [Canvas Getting Started Guide](#) for Students.

Student Resources:

Wellness: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or call 801-581-7776.

Student Mental Health Resources: Rates of burnout, anxiety, depression, isolation, and loneliness have noticeably increased during the pandemic. If you need help, reach out for [campus mental health resources](#), including counseling, trainings and other support.

Consider participating in a [Mental Health First Aid](#) or other [wellness-themed](#) training provided by Student Affairs' Center for Student Wellness to help contribute to creating a healthier and safer campus community. These are designed to equip you to better recognize and respond to signs and symptoms of mental health and substance abuse challenges.

Students with Disabilities: The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

The Center for Disability Services is dedicated to serving students with disabilities by providing the opportunity for success and equal access at the University of Utah. They also strive to create an inclusive, safe, and respectful environment.

For more information about what support they provide and links to other resources, view their website or contact:

Center for Disability Services

801-581-5020

disability.utah.edu

162 Union Building

200 S. Central Campus Dr.

Salt Lake City, UT 84112

University Safety Statement: The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages

regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

Addressing Sexual Misconduct: Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

Names & Personal Pronouns: Class rosters are provided to the instructor with the student's legal name as well as "Preferred first name" (if previously entered by you in the Student Profile section of your CIS account, which managed can be managed at any time). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class or on assignments. Please advise me of any name or pronoun changes so I can help create a learning environment in which you, your name, and your pronoun are respected. If you need any assistance or support, please reach out to the LGBT Resource Center. https://lgbt.utah.edu/resources/faculty_resources.php

English as a Second/Additional Language (ESL) Students: If you are an English language learner, there are several resources on campus available to help you develop your English writing and language skills. Feel free to contact:

Writing Center

801-587-9122

writingcenter.utah.edu

2701 Marriott Library

295 S 1500 E

Salt Lake City, UT 84112

English Language Institute

801-581-4600

continue.utah.edu/eli

540 Arapeen Dr.

Salt Lake City, UT 84108

Inclusivity at the U: I stand in support of compassion, dignity, value-of-life, equity, inclusion and justice for all individuals regardless of color, race/ethnicity, sexual orientation, religion, language, socioeconomic status, ability, gender, gender identity or expression, immigration status, or any type of marginalization. I stand in support of making our society more inclusive, just, and equitable for all individuals. I stand against individual and systemic racism in all its various forms.

The Office for Inclusive Excellence is here to engage, support, and advance an environment fostering the values of respect, diversity, equity, inclusivity, and academic excellence for students in our increasingly global campus community. They also handle reports of bias in the classroom as outlined below:

Bias or hate incidents consist of speech, conduct, or some other form of expression or action that is motivated wholly or in part by prejudice or bias whose impact discriminates, demeans, embarrasses, assigns stereotypes, harasses, or excludes individuals because of their race, color, ethnicity, national origin, language, sex, size, gender identity or expression, sexual orientation, disability, age, or religion.

For more information about what support they provide and links to other resources, or to report a bias incident, view their website or contact:

Office for Inclusive Excellence

801-581-4600

inclusive-excellence.utah.edu (Links to an external site.)

170 Annex (Wing D)

1901 E. S. Campus Dr.

Salt Lake City, UT 84112

Tentative Course Schedule:

The class schedule is subject to change. Please check the Canvas for updates. Note that deliverables are generally due Saturdays and Mondays by 11:59 pm unless otherwise specified. **PLEASE SEE CANVAS FOR THE PRECISE DATES OF ASSIGNMENTS.**

Week	Topic	Reading	Monday Deliverable	Saturday Deliverable
1 5/15	Probability	Cam 4.1-4.3	--	
2 5/22	Probability Distributions	Cam 4.4-4.5	--	Packback 1 HW 1
3 5/29	Normal and Binomial Distributions	Cam 4.5 Roulette Airlines Case Materials	Quiz 1	Packback 2 HW 2

4 6/5	Exam 1 Review	--	Quiz 2	Exam 1
5 6/12	Sampling and Sampling Distributions	Camm 6.1-6.3		Packback 3 HW 3
6 6/19	Confidence Intervals	Camm 6.4, including Notes + Comments, p. 250	Quiz 3	Packback 4 HW 4
7 6/26	Hypothesis Testing	Camm 6.5	Quiz 4	Packback 5 HW 5
8 7/3	Exam 2		Quiz 5	Exam 2
9 7/10	Scatter plots, Correlation, and Regression Introduction	Camm 2.8 Camm 7.1-7.4	--	Packback 6 HW 6
10 7/17	Regression Inference	Camm 7.3, 7.5	Quiz 6	Packback 7 HW 7
11 7/24	Indicator Variables and Curvilinear Regression	Camm 7.6 Camm 7.7	Quiz 7	Packback 8 HW 8
12 7/31	Exam 3 Review		Quiz 8	Exam 3 (not comprehensive) due Friday, August 4 .

University and Eccles School Policies

David Eccles School of Business Statement of Grading Policy

Grading provides feedback to students on how well they have mastered the content and learning objectives of a particular course to allow students to capitalize on strengths and work to improve weaknesses through future courses of action. The DESB grading policy is intended to ensure grades offer reliable feedback regarding student performance, and to ensure fairness and consistency across the School. The faculty member is responsible for arriving at a grade for each student that the faculty member believes appropriately reflects the student's mastery of the course material and learning objectives. The faculty member will then consider the class' overall performance in terms of School guidelines. These guidelines are provided to ensure that grading, on average for the School as a whole, is sustained at a reasonable level over time. The guidelines are as follows:

Course Level \ Version	Regular (non-Honors)	Honors
1000-2000	2.8-3.2	3.0-3.4
3000	3.0-3.4	3.2-3.6
4000-5000 (major specific)	3.1-3.5	3.3-3.7

Drop/Withdrawal Policies

Students may drop a course within the first two weeks of a given semester without any penalties. Students may officially withdraw (W) from a class or all classes after the drop deadline through the midpoint of a course. A “W” grade is recorded on the transcript and appropriate tuition/fees are assessed. The grade “W” is not used in calculating the student’s GPA. For deadlines to withdraw from full-term, first, and second session classes, see the U's Academic Calendar.

Technical Classroom Assistant Support:

Some courses may have a technical classroom assistant to support the faculty member in managing the classroom and remote attendance. Please note that these technical classroom assistants do not support individual student IT issues; instead, please see the information for the Campus Help Desk below. For a list of student online and technical resources, see [HERE](#).

- The Campus Help Desk is staffed 24/7/365. To quickly find answers to your questions, search the UIT Knowledge Base. If you still need help, call 801-581-4000, option 1. For less urgent issues, you may also email helpdesk@utah.edu. For IT outage information, visit our IT Services Status page at uofu.status.io or follow [@UofUITStatus](https://twitter.com/UofUITStatus) on Twitter.
- The Business Tutoring Center will provide Zoom assistance for Eccles students. Visit the website to see when Technical Assistant Tutors can assist you.

Adding, Dropping and Withdrawing from a Course

Students have the option of adding a class the first week of the term, if seats are available. See the links below for more information on adding, dropping and withdrawing from classes.

[Late Add Procedures](#)

[Dropping a Class](#)

[Withdrawing from a Class](#)

Final Exam Period

Final examinations in University courses may be required at the instructor's discretion. When they are required, final examinations must be given at times officially set. A schedule for such examinations is prepared by the Director of Scheduling and published by the University. See the [Final Exams Policy](#).

Grade Distribution

According to University policy, grades cannot be listed with reference to students' names and/or other identifying characteristics. The policy does not permit leaving papers/exams where anyone can look at them. Students can access their grades via the web system on the date that the University makes them available.

Attendance and Absences

A student who is not officially registered may not attend a university course. The university expects regular attendance at all class meetings. Instructors must communicate any particular attendance requirements of the course to students in writing before the first class meeting. Students are responsible for acquainting themselves with and satisfying the entire range of academic objectives and requirements as defined by the instructor.

Students are not automatically dropped from class(es) if they do not attend. They must officially drop their class(es) by the published deadline in the academic calendar to avoid a "W" grade.

Students absent from class to participate in officially sanctioned university activities (e.g., band, debate, student government, intercollegiate athletics) or religious obligations, or with instructor's approval, shall be permitted to make up both assignments and examinations.

Unexpected university facility closures due to weather, emergency or disaster may occur from time to time. Students may be required to complete coursework missed due to these or other class cancellations. However, instructors requiring mandatory make-up sessions may not penalize students if they are unable to attend due to time conflicts, etc.

Student Responsibility

For information on students' rights and responsibilities, please refer to the [Student Code](#).

David Eccles School of Business Statement of Professional and Ethical Conduct

Because of the importance of professional and ethical behavior in business, and its emphasis in our program, professional or academic misconduct is not tolerated in the David Eccles School of Business. Students are expected to adhere to the standards of behavior outlined in the University of Utah Code of Student Rights

and Responsibilities ([Policy 6-400](#)). Students engaging in behavioral misconduct could be subject to suspension or dismissal from the University. Students involved in any form of academic misconduct, including but not limited to cheating on tests, plagiarism and collusion may, at the instructor's discretion, receive a failing grade in the course, examination, or academic assignment. In addition to or instead of this sanction, the instructor may refer the case to the Student Behavior Committee for hearing. If the instructor chooses not to do so, the Associate Dean for Academic Affairs, after appropriate investigation, may do so along with a recommendation to dismiss the student from the Business School. If, after hearing the evidence, the Committee determines that the student in question is guilty of the misconduct charged, the Committee may impose sanctions in addition to those taken by the professor. If the academic dishonesty is not proven, the instructor must rescind any sanctions imposed and will be required to evaluate the student's performance with the assumption that there has been no misconduct. The School will treat the student likewise. If a student suspects another student of academic misconduct, he/she should refer the incident to the instructor, the appropriate department, the Associate Dean for Academic Affairs, or the Student Behavior Committee, administered by the Associate Dean of Students, 270 Union.

COVID-19 Statement

*University leadership has urged all faculty, students, and staff to **model the vaccination, testing, and masking behaviors** we want to see in our campus community.*

These include:

- *Vaccination*
- *Masking indoors*
- *If unvaccinated, getting weekly asymptomatic coronavirus testing*
- *Quarantining after exposure*

Vaccination

- ***Get a COVID-19 vaccination and the booster shot recommended for pairing with your vaccine if you have not already done so. Vaccination is proving highly effective in preventing severe COVID-19 symptoms, hospitalization and death from coronavirus. Vaccination is the single best way to stop this COVID resurgence in its tracks.***
- *University of Utah students are required (as of August 27, 2021) to complete a cycle of COVID-19 vaccination and booster shot with an approved vaccine, or complete an exemption form. The university provides three convenient vaccination options:*
- *Attend one of the regularly scheduled vaccine events at the Student Union on campus.*
- *Schedule an appointment with Student Health [here](#).*
- *Visit <http://mychart.med.utah.edu/>, <https://alert.utah.edu/covid/vaccine/>, or <http://vaccines.gov/> to schedule your vaccination.*

Masking

- *Based on CDC guidelines, the University requires everyone to wear face coverings in shared public spaces on campus, including our classroom. As a reminder, when I wear a face covering, I am protecting you. When you wear a face covering, you are protecting me and all of your classmates. If you forget your face covering, I will ask you to leave class to retrieve it. If you repeatedly fail to wear a face covering in class, I will refer you to the Dean of Students for a possible violation of the Student Code. Note that some students may qualify for accommodations through the Americans with Disabilities Act (ADA). If you think you meet these criteria and desire an exception to the face covering policy, contact the [Center for Disability and Access](#) (CDA). Accommodations should be obtained prior to the first day of class so that I am notified by CDA of any students who are not required to wear a face covering.*

Testing

- ***If you are not yet vaccinated, get weekly asymptomatic coronavirus tests. This is a helpful way to protect yourself and those around you because asymptomatic individuals can unknowingly spread the coronavirus to others.***
 - *Asymptomatic testing centers are open and convenient:*
 - [Online scheduling](#)
 - *Saliva test (no nasal swabs)*
 - *Free to all students returning to campus (required for students in University housing)*
 - *Results often within 24 hours*
 - *Visit alert.utah.edu/covid/testing*
- ***Remember: Students must self-report if they test positive for COVID-19 via this website: <https://coronavirus.utah.edu/>.***