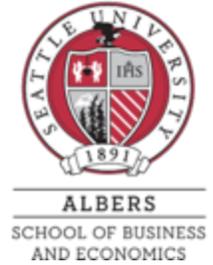


# ECON2100 - Business Statistics

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*The purpose of this syllabus is to provide students with details on how this course will work and what policies are in place. The instructor will strive to use this document to fairly and consistently work with all students to help them be successful in this course.*

**NOTE: The Final Exam** in this course is proctored. There will be at least one on-campus proctoring session on either Thur 3/19, 10am-12pm or Fri 3/20 2-4pm. I will work to confirm which time(s) will be available but **until then please do not plan travel for those days.**

## Course Description

Welcome to this course! This is an introductory course in statistics with applications to business. The core material of this course is the same whether you are applying statistics to medicine, healthcare, psychology, engineering or business. Therefore, our text has a variety of applications from different fields. We will, however, look at plenty of examples and data sets directly related to business.

As you enter the course, it may help to start with a definition: Statistics is the science of collecting and analyzing sets of data with the main goal of making inferences about a population with samples taken from that. In this course, we will explore the foundations and tools of this science and apply them to a variety of settings.

## Learning Outcomes (LOs) and Associated Tasks

On successful completion of this course (i.e. by passing this course), you will be able to:

1. Develop a thorough understanding of fundamental concepts of statistics, enabling students to describe and analyze qualitative and quantitative data.
2. Measure and interpret correlation, and distinguish correlation from causation
3. Effectively employ Microsoft Excel as a tool for the analysis of data and the presentation of statistical results.
4. Apply statistical methods to the analysis of problems and issues in business and public policy.
5. Communicate the results of their analysis accurately and effectively to different audiences.

6. Build an appreciation of the complexity of interpreting and producing statistical information, allowing students to more critically evaluate statistical findings.

The ways in which you will gain mastery of these outcomes, in a very practical way, include learning how to do the following **tasks**:

1. Summarize data numerically using measures of center and spread. (LO1, LO3, LO4)
2. Read/Interpret or create graphs/tables that contain statistical information. (LO1, LO3, LO4)
3. Identify the proper sampling methodology (or study design) for a given situation, including any limitations associated with that method. (LO1, LO2, LO4, LO6)
4. Compute and interpret probabilities in a variety of contexts. (LO1, LO4)
5. Compute the probabilities of normally distributed data sets (z scores). (LO1, LO3, LO4, LO6)
6. Apply concepts of sampling distributions and the central limit theorem. (LO1, LO2, LO4, LO6)
7. Create and correctly interpret confidence intervals. (LO1, LO3, LO4, LO6)
8. Conduct hypothesis tests for sample means and sample proportions. (LO1, LO3, LO4, LO6)
9. Analyze data sets, apply the concepts from the course to them, and communicate your results. (LO5)

## Text and Materials

- No textbook is required; all reading materials will be provided inside the WAMAP course and will be free to students.
- Access to Excel
- A StatCrunch Subscription (\$15 for 6 month subscription)
  - <https://www.statcrunch.com/get-access/>
- **Firefox and Chrome** are better **browsers** for this course. Using a computer (Mac, Windows, Chromebook) is recommended over a phone or tablet. The Canvas app for phones or tablets will display WAMAP better than a mobile browser.

# Course Outline

<b>Week</b>	<b>Course Content</b>
<b>1</b>	Introductions and Orientation (Due: Forum Intro, Sample Work Upload, Syllabus Quiz)
<b>2</b>	1.1 to 1.4: Introduction to Data (Due: HW1, Quiz1, Math Bio Forum Post)
<b>3</b>	2.1-2.3: Summarizing Data (Due: HW2, Quiz2, Math Bio Forum Reply)
<b>4</b>	3.1-3.3: Probability (Due: HW3, Quiz3)
<b>5</b>	4.1: Distributions (Due: HW4, Quiz4, Mid Course Reflection Forum Post)
<b>6</b>	Midterm Week (Due: Midterm, Mid Course Reflection Reply, Data Lab 1)
<b>7</b>	5.1-5.3: Inference Foundations (Due: HW5, Quiz 5)
<b>8</b>	6.1-6.2: Categorical Inference (Due: HW6, Quiz6, Inference Forum Post)
<b>9</b>	7.1-7.2: Numerical Inference (Due: HW7, Quiz7, Inference Forum Reply)
<b>10</b>	Review Week (Due: Data Lab 2)
<b>11</b>	Finals Week (Due: Final Exam)

# Grading Policies

## Assignment Weights

Assignment	Grade Weight
Homework (including forum posts and data labs) <i>Final point total will be divided by 95% of possible points to get the percentage in this category</i>	20%
Quizzes <i>Lowest percent score will be dropped automatically by MyOpenMath</i>	30%
Midterm	15%
Final Exam	35%

## Grading Scale (from ASBE)

Percent Earned & Grade	Percent Earned & Grade
94-100 = A	74-76.9% = C
90-93.9% = A-	70-73.9% = C-
87-89.9% = B+	67-69.9% = D+
84-86.9% = B	64-66.9% = D
80-83.9% = B-	60-63.9% = D-
77-79.9% = C+	Less than 60% = F

# Course Policies

**Attendance:** Attendance in an online course is evidenced by logging into, and being an active participant in our online course site. Active participation is an essential and intrinsic element of the education process. Absence affects the learning experience and erodes the program's norms for quality. When you are planning an absence, it is your responsibility to notify the instructor. Please contact your instructor(s) to discuss concerns you may have.

**Internet Access:** We will use a variety of online applications to communicate and collaborate. As such, you will need a reliable, high-speed Internet connection for the duration of this course. If you are traveling to countries such as China, Vietnam, Saudi Arabia, Iran, Burma, and others, some content in this course may be blocked. Please contact me immediately if you will be traveling to a country that may block Internet access during any portion of this cla

**Calendar/Schedule:** All due dates will be posted on MyOpenMath. Please check the calendar daily to make sure you know when due dates are coming. Meeting all deadlines is the responsibility of the student .

Please make sure you carefully check your computer settings for your date and time are set to the Seattle time zone. If do not do so, your MyOpenMath calendar may display due dates that are misleading. If you travel out of the time zone, be sure to use your MOM settings to display the Pacific Time Zone on the calendar so that you're due dates appear correctly to you. Most due times are 11:59pm Pacific time, so if you see due dates drastically different than that, check your computer's clock settings.

**Final Exam:** The final exam will be proctored. You will either need to take the exam with Zoom software or take the exam in-person with a proctor. Those who want to take the exam with Zoom will need to verify with the instructor beforehand that they can use the software with guidelines that will be provided during the course. There are no exceptions to the proctoring requirement for the final exam.

**Getting Help:** To get help with homework questions, use the "Post this question to forum" link that is below the problem. **You will need to include an image of your work** with your post/question or describe your thinking/work up to that point along with your question. See this [\[LINK\]](#) for guidelines on posting your questions. To get help on a more personal or private matter, please use the MOM messages feature to contact me. I make an effort to reply to all posts and messages before the end of the next business day. (I may not be online during weekends and holidays so that I can spend quality time with family.)

**Submitting Your Work:** You will be required to submit your work from SOME specified homework problems (details in each assignment) and ALL the work you do on quizzes. For quizzes, the last question on the quiz will allow you to upload your work. Quizzes are timed with enough time to finish the quiz PLUS 15 minutes to upload your work. If you do not

upload your work during the quiz, you will not receive any points for your work and you will not be eligible for any partial credit on a quiz based on your work. No quiz or homework work will be accepted in paper form or as attachments in messages or email. All work should be uploaded online. Write up your work as you do quiz problems because you will NOT have access to the quiz after time expires to “clean up” your work or recreate it.

*The expectation for quiz work* is that you will submit it before the quiz time limit has passed. This is no different than submitting your quiz work in a face-to-face course. You do so when you submit your answers, not several hours or days later.

**Quiz Review:** If you think you deserve more credit than you received on a quiz question, message the instructor with the Quiz number and the problem number(s) you want me to review. Be specific about what you want me to look at. If your work was not submitted on the quiz, or was not properly submitted, or I cannot read it, then you will likely receive no partial credit.

**Late Passes:** You may use one late pass per homework or quiz. To do so, select the day the assignment is due on the MOM calendar. Below the calendar, use the Late Pass link and follow the prompts. A late pass extends your due date by 48 hours. You should use a late pass BEFORE the original due date. After that, if you have NOT entered the assignment in review mode, you can still initiate a late pass up to 48 hours after the due date. If you have entered the assignment in review mode, you will NOT be able to use a late pass.

*Important:* If you open a quiz by entering the password (**ready4timedquiz**), you will not be able to later ask for an extension since you will have had a preview of the quiz that others will not have had.

Late passes may not be used on graded forum discussions where a reply is required of you. If you do not make a post or reply on time, you will not get any credit for that assignment.

**Advanced Notice:** If you KNOW that something has arisen in your personal life that is going to preclude you from meeting a deadline, please try to contact me BEFORE that deadline so we can discuss what reasonable extensions can be made. Doing so before the deadline will NOT come with a penalty. If you do so AFTER a due date has passed, you will need to make a “Special Extension Request.”

**Special Extension Requests:** If you forget to use a late pass on a homework assignment, you may request an extension from the instructor with a 25% penalty on any items submitted after the original deadline. You must message the instructor no more than 24 hours after the original deadline. To be consistent, the 25% penalty is applied to all students for all situations except in documented emergencies.

If you forget to use a late pass on a quiz, you may request an extension from the instructor with a 25% penalty but ONLY IF you have not opened the quiz and previewed it. You must

message the instructor no more than 24 hours after the original deadline. The 25% penalty is applied to all students for all situations except in documented emergencies.

Special extension requests are NOT allowed on data labs or graded forum posts or replies to encourage you to engage with your class or group members on a timely basis.

You may request no more than TWO (2) special extension requests in the course to encourage students to use late passes.

**Documented Emergencies:** If an emergency arises, and you cannot use a late pass on a quiz or homework (or forum post), the instructor may, at his discretion, extend your deadline, or excuse you from the assignment, if documentation can be provided in a timely manner. Message the instructor as soon as you can and provide relevant details. You should have ready documentation that describes your emergency (like a doctor's note). Emergencies that typically qualify are sickness requiring a doctor visit, sickness or death in your immediate family, or legal/military obligations. Again, this is at the discretion of the instructor.

Note: In the cases of quizzes, you may not open them and then ask for an emergency-based extension.

**Information for Online Learners:** Students new to online learning are often surprised by the depth and rigor of online courses. Often, they find that they need to be even more organized and purposeful in their time management than those attending traditional face-to-face courses. With this in mind, please complete the Orientation to Online Learning. In this short tutorial, you will learn about the most important characteristics for successful online learning, the challenges you may face, and how to overcome them. There is an Orientation to Online Learning in Canvas. See "Information for Online Learners" in the Course Information Module.

Note on traveling: It is critical that you have reliable Internet access at all times. If you are traveling outside the United States, some content in this course may be blocked. Reports from China indicate that the government is clamping down on the use of Virtual Private Networks (VPNs) that have previously given students access to course materials that would otherwise be blocked. If you are traveling to countries such as Vietnam, Saudi Arabia, Iran, and Burma, you will probably experience similar restrictions. *Please contact me immediately if you will be traveling out of the country during any portion of this class.*

# University Policies and Resources

## Academic Policies

- [Link to Academic Integrity Information](#)
- [Link to Academic Grading Grievance Policy](#)
- **Support for Students with Disabilities:** If you have, or think you may have, a disability (including an “invisible disability” such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff located in Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.
- **Notice Regarding Religious Accommodations:** It is the policy of Seattle University to reasonably accommodate students who, due to the observance of religious holidays, expect to be absent or endure a significant hardship during certain days of their academic course or program. Please see, [Link to Policy on Religious Accommodations for Students](#).
- **Office of Institutional Equity:** Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in educational programs or activities that receive Federal financial assistance. This prohibition includes sexual misconduct, which encompasses sexual harassment and sexual violence. Seattle U remains committed to providing a safe and equitable learning, living, and working environment. Seattle U offers emergency, medical, and other support resources, as well as assistance with safety and support measures, to community members who have experienced or been impacted by sexual misconduct.
  - Seattle U requires all faculty and staff to notify the University’s Title IX Coordinator if they become aware of any incident of sexual misconduct experienced by a student. For more information, please visit <https://www.seattleu.edu/equity/>. If you have any questions or concerns, you may also directly contact the Title IX Coordinator in the Office of Institutional Equity by email: [oiie@seattleu.edu](mailto:oiie@seattleu.edu) or phone: (206) 296-2824.

## Academic Resources

- [Link to Library and Learning Commons](#) - Research Services, Learning Assistance, Writing Center, Math Lab, Media Production Center