Seattle University
Albers School of Business and Economics
ECON 3100| Quantitative Methods and Applications
Winter 2020| Section 03: M/W/F 09:20 am – 10:45 am. | Pigott 200
Winter 2020| Section 02: M/W/F 12:30 pm – 01:55 pm. | Pigott 200

Instructor and Contact Information

Instructor: Sihong Xie, Ph.D., Lecturer of Economics
Office Hours: M/W 11:00 am – 12:00 pm and by appointment
Office Location: Pigott 316A
Class Website: Canvas
Email Address**:** sxie@seattleu.edu

Course Description

The stochastic and observational nature of business and economic data makes statistical models the primary tool for their analysis. An effective participant in decision-making must be able to understand and interpret statistical information. In this course, we will study the framework of statistical inferences. The statistical models we study include the population mean, simple linear regressions, multiple regressions, and time series models.

Learning Outcomes and Objectives

"Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write."
-Samuel S. Wilks (1950) paraphrasing H.G. Wells (1903)

Through the lectures, discussions, readings, practice problems, and case studies, you will have opportunities to develop your skills in several areas:

1. Understand the framework of statistical inferences.
2. Accurately interpret statistical results presented in a variety of formats.
3. Use Excel and R to analyze data.
4. Conduct a data-based research project.
5. Present statistical results in an accurate, clear and audience-appropriate manner.

Course Materials

Textbook: Anderson, David, Dennis Sweeney, and Thomas Williams, *Statistics for Business and Economics* New York: West. ISBN-13: 978-1337901062 or ISBN-10: 1337901067. Either the latest version 13th or previous version 10th is alright.

Software: Excel and R will be used in the lecture and your assignments.

R is a popular free software language that statisticians and data analysts use to develop statistical software and conduct data mining. There are many online tutorials, manuals, or guides for using R. I will provide some instructions, sample R codes, and practice problems. You are not required to know R

before the class and you are not going to be evaluated on your R coding skills, but it is necessary for you to acquire some R coding skills during the course to complete assignments.

Assignments

Assignments include online discussions, quizzes, problem sets, a midterm exam and a case study. All assignments are submitted through Canvas. The midterm exam is taken individually in class. You will have chances to work in groups on online discussions and the case study. I will assign groups randomly on Canvas.

Quizzes help you review statistical concepts, models, and theories (objective 1) . Problem sets help you apply methods to real-world data using statistical software R (objectives 1-3). Online discussions and the case study provide you opportunities to apply statistical methods to real-world problems and communicate your findings (objectives 1-5).

Grading

The final grade will be calculated as follows:

Class Participation	10%
Quizzes and Problem Sets	40%
Midterm Exam	20%
Group Online Discussion	10%
Group Case Study	20%

Grades will be determined as follows:

Your Score	Grade	Your Score	Grade
94.00 – 100	A	73.00 – 76.99	C
90.00 – 93.99	A-	70.00 – 72.99	C-
87.00 – 89.99	B+	67.00 – 69.99	D+
83.00 – 86.99	B	63.00 – 66.99	D
80.00 – 82.99	B-	60.00 – 62.99	D-
77.00 – 79.99	C+	59.99 and below	F

Course Etiquette and Policies

Classroom Civility

You are expected to arrive and leave class on time, be respectful to others, cooperate with your cohorts, participate in class discussions, and take a responsibility to co-create a meaningful class for everyone.

Laptops and Smartphones

Laptops, tablets, smartphones, and similar forms of technology may be used in this class for taking notes and for viewing course materials as long as their use does not interfere with your participation or

engagement in class discussions. Surfing the web, checking email, texting, and similar activities are distracting to students and to me and ultimately detrimental to the learning environment. A violation of this policy may result in appropriate grade sanctions.

Late Graded Work

I cannot accept late assignments because we are on tight schedule and I need to post answers right after assignments are collected.

Attendance

Attendance is expected. You will not do well in this course unless you attend class regularly. We will do in-class proactice every week, which accounts into your participation points. The two lowest in-class proactice scores are dropped, giving you two "free pass" to miss in-class practices.

Office Hours

Office hours are established to help you succeed! You should use them as a resource to get extra help on lecture material, problem sets, express concerns or difficulties in your study, and to explore ideas you are interested in. Coming to office hours is a good indication that you care about your studies enough to take extra steps.

Email

I encourage you to send me emails with any questions and concerns. In your email subject, please use Econ 3100: <your email subject>. I prefer to be addressed by last name. I will do my best to respond within 24 hours. This response may come in the form of an email directly back to you or, if the answer would be beneficial to the entire class, I will make an announcement on Canvas or in class. Grades will not be discussed over email.

Missed Exams

If you cannot be present for an exam due to a work conflict or an emergency, please let me know in advance so we can reschedule it as soon as possible. To qualify for the rescheduling, you need to provide me with a writing notification such as supervisor or doctor notes.

Academic Misconduct

I have a strict no cheating policy. If I have strong suspicions of dishonest behavior, I am obligated to impose an academic sanction that includes failure in the course even for a single instance. In addition, I am obligated to report all incidents of academic misconduct to the dean of graduate study of Albers School. Cheating results in a severe setback for you and considerable administration time for me, so my best advice to you is: DO NOT CHEAT!

Grade Adjustment

You will be responsible for monitoring your own grades. All communication about grades is through Canvas or in person, not through email. I will post grades for all graded work in a timely manner. If you

have questions about grades, you should talk to me immediately. I will not accept individual request on changing grades after two weeks they are posted.

I reserve the rights to curve the grades for any individual exam or course overall. No grades will be adjusted after an overall course curve has been applied. Individual requests for extra credit or grade adjustment will be denied in order to maintain fairness to all students in the class.

University Policies and Resources

Academic Resources

- Library and Learning Commons (http://www.seattleu.edu/learningcommons/)
  (This includes: Learning Assistance Programs, Research [Library] Services, Writing Center, Math Lab)
- Academic Integrity Tutorial (found on Canvas and SU Online)

Academic Policies on Registrar Website (https://www.seattleu.edu/redhawk-axis/academic-policies/)

- Academic Integrity Policy
- Academic Grading Grievance Policy
- Professional Conduct Policy (only for those professional programs to which it applies)

Notice for Students Concerning 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 significant hardship during certain days of their academic course or program. Please see, *Policy on Religious Accommodations for Students* (https://www.seattleu.edu/media/policies/Policy-on-Religious-Accommodations-for-Students---FINAL.PDF)."

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 (**email**: oie@seattleu.edu; **phone**: 206.296.2824) University Resources and Policies

Tentative Course Schedule

Date	Course Material	Topics
1/6 – 1/10	ASW Ch.6-Ch.10	Review of basic statistical concepts
1/13 – 1/17	ASW Ch.6-Ch.10	Review of basic statistical concepts
1/22, 1/24	ASW Ch14	Simple linear regression
1/27 – 1/31	ASW Ch14	Simple linear regression
2/3 – 2/7		Review, **Midterm Exam on 2/7**
2/10 – 2/14	ASW Ch15	Multiple regression
2/19, 2/21	ASW Ch15	Multiple regression
2/24 – 2/28	ASW Ch15	Qualitative and interaction variables
3/2 – 3/7	ASW Ch18	Forecasting
3/9 – 3/14	ASW Ch18	Forecasting
3/16	ASW Ch18	Review, **Case due on 3/18**