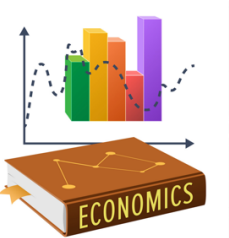
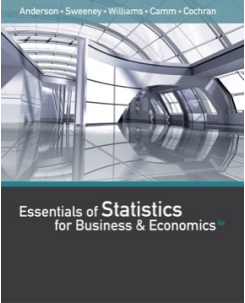
 THE COLLEGE OF WOOSTER	<p style="text-align: center;">QUANTITATIVE METHODS – ECON 11000-01 Fall 2022</p> 
Instructor Information	
Name	Moses Luri (I prefer to be called Prof. Luri)
Contact Information (Email)	mluri@wooster.edu
Office Location	Morgan 209
Office Hours	Mondays & Wednesdays, 3:00pm – 4:30pm (or by appointment)
Zone Intern (ZI) Information	
Name	Rehann Silvanus
Contact Information (Email)	rsilvanus24@wooster.edu
Office Location	Math Center, Taylor Hall, Room 301
Office Hours	TBD
Course Information	
Meeting Days, Times	Monday, Wednesday, Friday, 11 – 11:50am
Class Location, Web Page	Morgan 217, MOODLE LINK
Course Materials	
Textbook	<p><i>Essential of Statistics for Business and Economics, 8th edition</i> Cengage Learning, by Anderson, Sweeney, Williams, Camm, and Cochran. ISBN:978-1337114172</p> 
Software	<p>We will use STATA as the primary statistical package for data analysis in this course. The college has subscription to STATA 17, which you can download HERE. No prior knowledge of STATA or programming is required. Students will be taken through how to install and perform basic data analysis in SATA.</p>

Course Description: Many important questions in economics and business can be answered with careful data analysis. This course will provide you with a solid foundation in probability and statistics and allow you to build confidence in tackling economics and business questions using statistical methodology. We will emphasize topics needed in the further study of econometrics and provide basic preparation for **ECON 210** (Applied Regression). Even though no prior preparation in probability and statistics is required, familiarity with basic algebra and calculus is assumed.

Learning Outcomes: Upon completion of this course, you will be able to:

- Comprehend fundamental statistical terminology and notation.
- Perform *exploratory analysis* on data using appropriate statistical techniques and Software
- Identify *probability distributions* and use them to *compute theoretical probabilities*
- Perform *estimation* and *conduct hypotheses tests* on claims in business & economics
- Interpret *statistical information* especially presented in business & economics
- Produce an *end-to-end research product* in business & economics that features *exploratory analysis*, *statistical inference*, and *correct interpretation* of results

Assessments: Final course grade will be calculated using the following categories

	Points	Percent
▪ In-class and post-class worksheet completion	200	15
▪ Weekly Quizzes (9) – lowest will be dropped	200	20
▪ Tests (3)	300	30
▪ Project	200	20
▪ Final Exam	100	15
▪ Total	1000	100

Grading Scheme: Letter Grade

Percentage Interval

A, A-	100 – 93, 92.99 – 90
B+, B, B-	89.99–87, 86.99–83, 82.99–80
C+, C, C-	79.99–77, 76.99–73, 72.99–70
D	69.99 – 60
F	<= 59.99

MAJOR COURSE POLICIES

Grading Policies

- **Late-work policy:** Due dates are non-negotiable. No credit will be given for late submissions unless prior permission is granted from the instructor.
- **Make-up work policy:** No makeups will be given for any missed assessments in this course.
- **Re-grade policy:** you can request a re-grade of your work only if you have a compelling case that warrants another look at your work.

Attendance and Participation

- This class will be completed in-person and will take place at the scheduled day/time unless otherwise advised by the college.
- Class attendance is expected unless you are too ill to participate/concentrate, or have a compelling excuse backed by documentation (such as a doctor's note)¹.
- Students are expected to be on time for class and stay for the entire class period.
- You are required to participate fully in each class by coming prepared, being mentally focused, asking and responding to questions, and completing in-class activities.
- Regular attendance is necessary for students to achieve the essential learning Goals of this course. **A student may not miss more than 15% of, (or 6 out of 40) class meetings, through any combination of excused and unexcused absences.** If this occurs, the instructor will notify the student. If there are documented extenuating circumstances, the student may petition for a late course withdrawal.

Reading Assignments and Class Preparation

- Section readings, lecture slides, and worksheets for each class day will be posted to Moodle in advance. Students are required to read the sections in preparation for the next class. "Reading" does not mean "skimming". Highlight definitions and theorems for easy recall. Work through examples to the best of your ability. Reference examples/sections if necessary. Make notes of things you don't understand, or questions you have about the materials and ask them during the next class!
- Although I do expect everyone to read the sections carefully before class begins, *I will not expect that everyone understands everything they've read or seen.* You should feel free to ask questions (in class or out of class) about material, either from the book or from my presentation. In fact, there will be time at the beginning of every class period for just these types of questions!
- Most class days will consist of in-class activities, completing worksheets and holding discussions. Some of the work and activities will be completed alone, some with a partner, and some in a small group.
- Classroom Behavior Expectations: I expect you to be respectful in the classroom. I am happy to take any questions in class, no matter how trivial they may seem. To facilitate an open learning environment, every member of this class must show respect for every other member of this class. Listen when others are speaking (including me) and avoid distracting or rude behavior. At Wooster we embrace diversity of background, beliefs, ethnicity, gender, gender expression, national origin, religious affiliation, sexual orientation, and other visible and non-visible categories. I will not tolerate discrimination, offensive language or any other behaviors that may disrupt teaching and learning in the classroom.

¹ Historically, students with better attendance and participation rates perform considerably better in this course.

COURSE ASSESSMENT STRUCTURE (DETAILS)

In-class and post-class worksheet completion

- For each section of the course textbook that will be covered in this course, you will be required to complete a worksheet in class or outside class. Worksheets will typically contain examples that will be jointly discussed by the instructor and student during class, and self-test questions that students will be required to complete individually or in groups. Worksheets are designed to allow you describe and apply concepts from class as well as to conduct various analyses using Stata. You will be asked to submit a random selection of completed worksheets from time to time for points towards your final grade. For all worksheets that involve using Stata, you must include your syntax file (.do file) containing the formulas/commands used.

Weekly Quizzes

- There will be 9 quizzes in this course, with one typically due each week. All Quizzes will be administered on Moodle are due each **Sunday by midnight**. Quizzes will be multiple questions prepared to assess your understanding of concepts discussed in class. Your **lowest quiz scores** will be dropped at the end of the semester.

Tests

- There will be three tests in the course. All tests will be open book and open note, and they are not cumulative. Tests will be administered person-in but can also be via Moodle depending on the instructor's choice. They will mostly contain questions on conceptual understanding, interpretation, and application.
- **The tentative dates for tests and projects are outlined on pg.6.** If a conflict arises with any of the test dates, please let me know as soon as possible, and you can take the test early. Generally, missing any test is utterly unacceptable and will result in a grade of zero for the test. The only exceptions to this rule are for truly grave circumstances on the level of hospitalization or a serious (and unexpected) family emergency.

Project (Data Analysis Paper)

- A major goal of this course is to prepare you to apply quantitative methods in a variety of settings, including in research papers such as your Senior IS. Throughout this semester, you will work on answering a research question of **your choice** using techniques from class. There will be multiple deliverables, including a **proposal** (50 points) where you present *your research question*, a description of the chosen **dataset** (50 points), a **detailed outline** of your paper (optional), and the **final paper** (100 points). The paper will be discussed in more detail later in class.

Final Exam

- There will be a final exam at the end of the semester, which will be comprehensive. The structure and other details for the final exam will be discussed in class later in the semester.

OTHER IMPORTANT COURSE INFORMATION

Technology & Communication

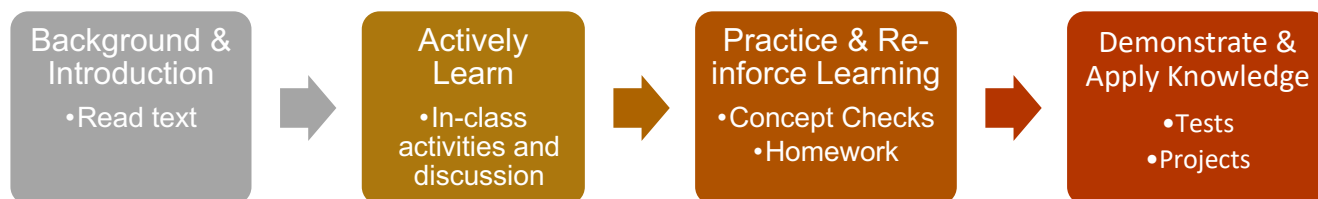
- All course materials and announcements will be posted to the course Moodle page ([LING TO PAGE](#)) *Check Moodle and your email daily.*
- StatKey will be used throughout the course. This is a free web-based statistics/data analysis platform that accompany the course textbook. It requires no download and can be accessed on any web-enabled device.
- If you are familiar with another statistical analysis program (R, Stata, SPSS), and you would like to use it for projects and other assignments, you may do so. However, you should not expect technological help from the instructional team. Excel is not a statistical program and should not be used for analysis.
- *I would like to stress that communication is key to success!* This will hold true throughout your college career, work career, and really your entire life. I implore you to contact me *as soon as possible* if you are struggling with material or if a conflict arises (see “Conflicts with Academic Responsibilities” on the College Policies document).

The Instructional Team and The Math Center

- The class has a Zone Intern (ZI), who will attend most class meetings. The ZI is there to help you understand the material, she will assist me in answering questions during class. (You can also specifically request her help!)
- The ZI will hold open office hours in the Math Center. This help is free, no appointment is necessary. The times of these office hours will be posted on Moodle. I strongly encourage you to use this resource!
- In office hours, the ZI can help explain concepts, get you “un-stuck” on a homework/activity problem, or give you feedback on your work. She can work with an entire group on an activity or project. However, I want to stress that she is *not there to do your work for you*. Any abuse of the staff will be taken extremely seriously; see “Academic Integrity” on the College Policies document.

Structured & Scaffolded Learning

- Each of these steps are important! You cannot succeed at the final step (tests and projects) without putting honest and consistent effort into every previous step.



Tentative Course Schedule

Week	Week Begins:	Tentative Topic(s)	Readings in textbook	Important Dates
1	Wed.Aug.24	Syllabus & Introductions Getting Started with Stata – Installation & intro		
Model 1: Introduction to Data and Statistics				
2	Mon.Aug.29	Data and Statistics	Secs. 1.1, 1.2, 1.3, 1.4, & 1.5	
Model 2: Describing Data – Numerical and graphical summaries				
3	Mon.Sep.05	Descriptive Statistics: Tabular & Graphical displays	Secs. 2.1, 2.2, & 2.3	
4	Mon.Sep.12	Descriptive Statistics: Tabular & Graphical displays continued	Secs. 2.4 & 2.5	
5	Mon.Sep.19	Descriptive Statistics: Numerical measures	Secs. 3.1, 3.2, & 3.3	Project proposal due (Fri.Sep.23)
6	Mon.Sep.26	Descriptive Statistics: Numerical measures continued	Secs. 3.4 & 3.5	Test 1 (Fri.Sep.30)
Model 3: Intro to Probability Theory				
7	Mon.Oct.03	Introduction to Probability	Secs. 4.1, 4.2, 4.3, 4.4, & 4.5	
		FALL BREAK		
8	Mon.Oct.17	Discrete Probability Distributions	Secs. 5.1, 5.2, 5.3, & 5.5	Project data due (Fri.Oct.07)
9	Mon.Oct.24	Continuous Probability Distributions	Secs. 6.1 & 6.2	Test 2 (Fri.Oct.28)
Model 4: Sampling, Sampling Distribution, Point & Interval Estimation				
10	Mon.Oct.31	Sampling and Sampling Distributions. Point Estimation	Secs. 7.2, 7.3, 7.4, 7.5, 7.6, & 7.8	
11	Mon.Nov.07	Interval Estimation	Secs. 8.1, 8.2 & 8.3	
Model 5: Hypothesis Tests				
12	Mon.Nov.14	Hypothesis Tests	Secs. 9.1, 9.2, 9.3, & 9.4	
	Mon.Nov.21			Test 3 (Mon.Nov.28)
		THANKSGIVING BREAK		
13	Mon.Nov.28	Inference about means and proportions with two populations	Secs. 10.1, 10.2, & 10.4	
Model 6: Intro to Model building				
14	Mon.Dec.05	Simple Linear Regression	Secs. 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, & 14.7	Final project due (Fri.Dec.02)
15	Wed.Dec.14			Final Exam (Wed.Dec.14)

Disclaimer: Although every effort has been made to make this syllabus as complete as possible, changes may occur regarding schedule, grading, assignments, and office hours. The instructor reserves the right to make changes to this syllabus if it is deemed necessary. Any such changes will be communicated to students in a timely manner and posted on Moodle.

COLLEGE POLICIES

Academic Integrity

I encourage students to exchange ideas and discuss problems. However, for assignments to be turned in, it will be considered plagiarism if a student copies the work of another. Anything taken from another source, such as another textbook or the internet, *must* be properly cited – failure to do so is plagiarism. On exams or quizzes the giving or receiving of any aid is not permitted. **Our ideas are the most valuable things we have – do not steal them from others.**

The academic program at the College seeks to promote the intellectual development of each student and the realization of that individual's potential for creative thinking, learning, and understanding. In achieving this, each student must learn to act rigorously, independently, and imaginatively.

The College's understanding and expectations in regard to issues of academic honesty are fully articulated in the Code of Academic Integrity as published in [The Scot's Key](#) and form an essential part of the implicit contract between the student and the College. The Code provides framework at Wooster to help students develop and exhibit honesty in their academic work. You are expected to know and abide by these rules.

Dishonesty in any of your academic work is a serious breach of the Code of Academic Integrity and is ground for serious penalties. Such violations include turning in another person's work as your own, copying from any source without proper citation, violating expectations for a group project, submitting an assignment produced for a course to a second course without the authorization of all the instructors, and dishonesty in connection with your academic work. You will be held responsible for your actions. Particular attention should be directed to the appropriate use of materials available online. Whether intentional or not, improper use of materials is a violation of academic honesty. If you are unsure as to what is permissible, please contact your course instructor.

The Wooster Ethic

I hereby join this community with a commitment to the Wooster Ethic upholding academic and personal integrity and a culture of honesty and trust in all my academic endeavors, social interactions, and official business of the College. I will submit only my own original work, and respect others and their property. I will not support by my actions or inactions the dishonest acts of others. (THE SCOT'S KEY, p. 60)

Conflicts with Academic Responsibilities

The College of Wooster is an academic institution, and its fundamental purpose is to stimulate its students to reach the highest standard of intellectual achievement. As an academic institution with this purpose, the College expects students to give the highest priority to their academic responsibilities. When conflicts arise between academic commitments and complementary programs (including athletic, cultural, educational, and volunteer activities), students, faculty, staff, and administrators all share the responsibility of minimizing and resolving them. As a student you have the responsibility to inform the faculty member of potential conflicts as soon as you are aware of them, and to discuss and work with the faculty member to identify alternative ways to fulfill your academic commitments without sacrificing the academic integrity and rigor of the course.

Title IX Reporting Policy Regarding Sexual Misconduct, Harassment, Relationship Violence, and Stalking

Contact: Lori Makin-Byrd, lmakin-byrd@wooster.edu, (330) 263-2017, [Title IX website](#)

The College of Wooster is committed to fostering a campus community based on respect and nonviolence. To this end, we recognize that all Wooster community members are responsible for ensuring that our community is free from discrimination, gender bias, sexual harassment, and sexual assault. In accordance with Title IX, Wooster is legally obligated to provide supportive options for all reports of sexual harassment and sexual assault that occur on our campus. Faculty who become aware of an incident of sexual violence, including harassment, rape, sexual assault, relationship violence, or stalking, are mandated reporters at the College and are required to notify Wooster's Title IX Coordinator. The purpose of this disclosure is to ensure that students are made aware of their reporting options and resources for support. For more information about your rights and reporting options at Wooster, including confidential and anonymous reporting options, please visit <https://inside.wooster.edu/title-ix/>

Discriminatory or Bias-Related Harassment Reporting Policy

Contact: Kayla Campbell, kcampbell@wooster.edu; or visit the [Bias Reporting website](#)

The College of Wooster is committed to promoting its mission of inclusivity and equity in all aspects of the educational enterprise. This commitment extends to all rights, privileges, programs and activities, including housing, employment, admissions, financial assistance, and educational and athletic programs at the College. The College's Bias Incident Reporting Process is designed to effectively respond to bias concerns raised by faculty, students, staff, alumni and visitors to the College. If you or someone you know are the victims of bias, you can:

- [File a report online](#) (where you may choose to identify yourself or not)
- Contact Campus Safety: 2590 (from campus phone) or 330-263-2590
- Call the Anonymous Tip Line: 2337 (from campus phone) or 330-263-2337
- Contact the Dean of Students Office: 2545 (from a campus phone) or 330-263-2545
- Contact the Chief Diversity, Equity, and Inclusion Officer representative for students: Kayla Campbell, kcampbell@wooster.edu, 330-263-2607

Inclusive Academic Resource Center: Academic Support and Disabilities

Contact: Amber Larson, alarson@wooster.edu, (330)263-2595, [ARC Website](#)

The Academic Resource Center, which is in APEX (Gault library) offers a variety of academic support services, programs and 1:1 meetings available to all students. Popular areas of support include time management techniques, class preparation tips and test taking strategies. In addition, the Academic Resource Center coordinates peer-tutoring for several academic departments. Students are encouraged to schedule an appointment.

An additional support that the Academic Resource Center offers is English Language Learning. Students can receive instruction or support with English grammar, sentence structure, writing, reading comprehension, reading speed, vocabulary, listening comprehension, speaking fluency, pronunciation, and American culture through 1:1 meetings with the Academic Resource Center staff, ELL Peer Tutoring, ELL Writing Studio courses, and other programming offered throughout the year.

The Academic Resource Center also coordinates accommodations for students with diagnosed disabilities. At the beginning of the semester, students should contact the Academic Resource Center to make arrangements for securing appropriate accommodations. Although the Academic Resource Center will notify professors of students with documented disabilities and the approved

Inclusive Learning Statement

Your success in this course is important to me. If there are circumstances that may affect your academic performance or impact your learning in particular portions of the class, please let me know as soon as possible. You do not need to share specifics, but together we can develop strategies to meet both your needs and the requirements of the course. I encourage you to visit the [Academic Resource Center](#) to determine how you could improve your learning as well. If you need official accommodations, the ARC can work with you to make sure your needs are met. There are also a range of resources on campus, including the [Writing Center](#), [Math Center](#), [STEM Success Initiative](#), and [APEX](#).

It is also important that we all be respectful of everyone's privacy around health concerns, vaccination status, and any accommodations that are necessary in the classroom. It is not appropriate to question why someone requests physical distancing, chooses to wear a mask, or requires any other accommodations. As part of our participation together in this class, we commit to showing respect to each other as individuals, to working together to create a learning environment that fosters a sense of belonging and inclusion to all members, and to understanding that our differences are also strengths. Your suggestions are encouraged and appreciated, and please contact me—via email, office hours, or after class—if you have any concerns or questions.

Wellbeing at Wooster

Contact (24/7): (330) 263-2319, or visit the [Wellness Center website](#)

The College of Wooster is committed to supporting the wellbeing of our students. During the course of their academic careers, students experience challenges that may interfere with their learning & health (both physical and mental), including but not limited to: strained relationships, adjusting to a new environment, chronic worrying, persistent sadness or loss of interest in enjoyable activities, family conflict, grief and loss, domestic violence, unwanted sexual experiences, difficulty concentrating, drug/alcohol problems, significant changes in eating and sleeping patterns, microaggressions, challenges with organization, procrastination and/or lack of motivation. Counseling Services at the Longbrake Student Wellness Center is a free and confidential resource providing short-term counseling and connections to community agencies for students needing longer term or specialized resources. You can make an appointment by calling 330.263.2319 between 8:30am-4:30pm during weekdays or by emailing Lori Stine (lstine@wooster.edu). You can also find helpful resources on the Counseling Services website at <https://inside.wooster.edu/health/counseling/>.

Students also have free access to TimelyCare, a telehealth service providing scheduled medical and counseling appointments as well as 24/7 crisis consultation with licensed professionals. Students use their Wooster email to establish an account at [TimelyCare: Telehealth for Scots](#). TimelyCare also provides students access to nutritionists and health coaches about issues of sleep and exercise, and psychiatry (with a referral from doctor or counselor).

If you or a friend is in crisis, please call Campus Safety at 330-287-3333 or the National Suicide Prevention Lifeline (1-800-273-TALK) or connect with the Crisis Text Line by Texting "4HOPE" to 741-741.

For financial concerns: Dean of Students Office, dos@wooster.edu (330) 263-2545, [DoS website](#)

For safety concerns: Campus Safety 330-263-2590 or cow-security@wooster.edu, [Campus Safety website](#). **In the care of an emergency, call: 330-287-3333.**