

AEDECON 4002.01 AU2022

Econometric Application in AgBusiness and Applied Econ

Format: This course is delivered fully in person

- **Class:** Tuesdays and Thursdays from 9-10:15AM in Howlett 116 (8/23 Tue - 12/7 Wed)
- **Lab:** 11:30-12:25 OR 12:40-1:35 in Ag Admin 005. You can choose which recitation to attend.

Instructor: Yanan Liu, PhD student, AEDE

- **Phone Number:** 614-266-2406 (text preferred)
- **e-mail:** liu.8167@buckeyemail.osu.edu
- **Zoom:** <https://go.osu.edu/aedeyananliu> (If asked for a passcode, use 847896)
- **Office Hours:** I will host in-person and virtual office hours in Ag Admin 344 and via Zoom on Mondays from 9-10AM, and Wednesdays from 1-2PM. Just drop by my office or drop in the Zoom address above and I'll be there. I am also available by appointment.

Teaching Assistant: Yun Li

- e-mail: li.10490@buckeyemail.osu.edu
- Office Hours: Tuesdays 2:30-4:30PM in Ag Admin 342 and zoom at <https://osu.zoom.us/j/94255732958?pwd=TkVwaERvRDZSeDNLL2ZwVkNUODh1UT09> (password 298682 if asked)

Course Description: Students will be introduced to and gain experience with quantitative statistical models and related methods and their application to agricultural, environmental and development economics and agribusiness.

Required Text/Software : All students are expected to have internet access, and access to full versions of the Microsoft Office suite (the mobile version of the office suite will not provide the tools we need for this class). All students are provided access to the online version of Office 365 free from the University.

[Details for accessing Office 365 can be found here \(You will need to login to your student account to access the article\).](#) *I will provide videos and details for accessing the Office 365 suite during the first week of class.*

For more advanced statistics, we will be using a free statistical software called JASP. [JASP is available for free here.](#)

For texts, we will use a variety of free resources available online. All assignments and resources will be noted in the course calendar.

For basic statistics, we will use excerpts from [Introduction to Statistics](#).

For more advanced topics we will use excerpts from *Introductory Econometrics: A Modern Approach* by Wooldridge, available as a free .pdf [here](#).

Course Objections/Learning Outcomes:

1. Develop a deeper understanding of economic statistics, econometrics, and have greater confidence in its application using MS Excel.
2. Recall the basics of ordinary least squares model (OLS) estimation, with its advantages and disadvantages.
3. Understand appropriate alternatives to ordinary least squares, and when assumptions underlying the classical linear regression model are violated.
4. Apply model construction and estimation techniques to agribusiness and applied economics problems.

Evaluation and Description:

- Six Bi-weekly Problem Sets (75% of final grade): Problem set will consist of
 - written statistical and conceptual problems demonstrating the students understanding of statistical and econometric concepts
 - applied problems demonstrating Excel skills and the ability to apply econometrics concepts to agribusiness and food related issues
- Project/Presentations (25% of grade): The projects will require the student to
 - Define an agribusiness or food related question
 - Identify a valid data source to address the question
 - Estimate an appropriate econometric model to address the question
 - Prepare a 10 minute oral presentation with accompanying visuals for presentation to the class.

Disability Accommodations with COVID addition

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Lauren's Promise: I will listen and believe you if someone is threatening you

Lauren McCluskey, a 21-year-old honors student athlete, was murdered on Oct. 22, 2018, by a man she briefly dated on the University of Utah Campus. ***We must all take actions to ensure this never happens again.***

Any form of sexual harassment or violence will not be excused or tolerated at The Ohio State University.

In cases of sexual harassment or violence, Ohio State will:

- Respond promptly and effectively to sexual assault, relationship violence, and stalking,
- Provide interim measures as necessary
- Provide confidential and non-confidential support resources,
- Conduct a thorough, reliable, and impartial investigation,
- Provide remedies as necessary.

If you are experiencing sexual assault, relationship violence, or stalking, you can take the following actions:

- If you are in immediate danger, call **911**.
- Report it to me, and I will connect you to resources.
- Seek confidential sources of support and help:
 - Counseling and Consultation Service Available 24/7 through the Office of Student Life, ccs.osu.edu ([Links to an external site.](#)), 614-292-5766

- Medical services through the Office of Student Life Wilce Student Health Center, [shs.osu.edu \(Links to an external site.\)](https://shs.osu.edu), 614-292-4321
- Legal services through Student Legal Services, [Studentlegal.osu.edu \(Links to an external site.\)](https://studentlegal.osu.edu), 614.292-5853

OSU's Office of Institutional Equity has established [procedures and resources for Sexual Misconduct Response and Prevention \(Links to an external site.\)](#).

Counseling and Consultation Services:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling (614) 292- 5766. CCS is located on the 4th Floor of the Younkun Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24 hour emergency help is also available through the 24/7 National Prevention Hotline at 1-(800)-273-TALK or at suicidepreventionlifeline.org.

David Wirt, wirt.9@osu.edu, is the CFAES embedded mental health counselor. He is available for new consultations and to establish routine care. To schedule with David, please call 614-292-5766. Students should mention their affiliation with CFAES when setting up a phone screening.

Safe and Healthy Buckeyes

Health and safety requirements: All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance ([https://safeandhealthy.osu.edu \(Links to an external site.\)](https://safeandhealthy.osu.edu)), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will result in a warning first, and disciplinary actions will be taken for repeated offenses.

Creating an environment free from harassment, discrimination, and sexual misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

This course adheres to The Principles of Community adopted by the College of Food, Agricultural, and Environmental Sciences. These principles are located on the Carmen site for this course; and can also be found

at <https://go.osu.edu/principlesofcommunity> (Links to an external site.). For additional information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (<https://equityandinclusion.cfaes.ohio-state.edu/> (Links to an external site.)). If you have been a victim of or a witness to a bias incident, you can report it online and anonymously (if you choose) at <https://studentlife.osu.edu/bias/report-a-bias-incident.aspx> (Links to an external site.).

Academic Integrity/Academic Misconduct

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute Academic Misconduct.

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: Any activity that tends to compromise the academic integrity of the University, or subvert the educational process. Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Course Summary:

Date	Details	Due
Tue Sep 6, 2022	Assignment Problem Set 1: Exploring Data in IPUMS and Excel	due by 11:59pm
Tue Sep 20, 2022	Assignment Problem Set 2: Data Description and Visualization	due by 11:59pm
Tue Oct 4, 2022	Assignment Problem Set 3: Simple Linear Regression	due by 11:59pm
Tue Oct 18, 2022	Assignment Problem Set 4: Dummy Variables and Interaction Terms	due by 11:59pm
Tue Nov 1, 2022	Assignment Problem Set 5: Functional Forms in OLS	due by 11:59pm
Tue Nov 8, 2022	Assignment Project Part I: Problem Definition and Data Source DUE	due by 11:59pm
Tue Nov 15, 2022	Assignment Problem Set 6: Credit Card Default (Logistic Regression)	due by 11:59pm
Tue Nov 29, 2022	Assignment Project Part II: Technical Paper DUE	due by 11:59pm
Tue Dec 6, 2022	Assignment Project Part III: Science Communication	due by 11:59pm