AEB 4931 Econometrics
Syllabus

Faculty: Dr. Gulcan Onel, Food and Resource Economics Dept.
Office: 1117 McCarty Hall B
Office hours: Tu., Th. 11:00AM – 12:00PM, or by appointment
Email: gulcan.onel@ufl.edu
Class room and time: MCCB 3124 Tu. 8:30 AM - 10:25 AM, and Th. 9:35 AM - 10:25 AM

COURSE DESCRIPTION

AEB 4931 Econometrics introduces students to multiple regression methods and its extensions for analyzing data in economics and related disciplines. The objective of the course is for the student to learn how to conduct – and how to comment on – empirical studies in economics and related fields. The emphasis of the course is on empirical applications; the mathematical treatment of econometrics will not be deep.

The course objectives:
>   1. Learn how to estimate and make inference on economic relationships using data.
>   2. Learn the basics of programming in STATA.
>   3. Learn to detect and address econometric assumptions that typically do not hold in economic data (e.g. homoskedasticity).
>   4. Understand the steps of empirical research process, and be able to replicate key findings of an empirical paper.

Pre-requisite: Data Analysis and/or Statistics

TEXTBOOK AND READINGS

Required: The textbook is J.H. Stock and M.W. Watson, *Introduction to Econometrics* (4th edition), Pearson, 2019. (*Note*: earlier editions are acceptable).

Optional: J.M. Wooldridge, *Introductory Econometrics*, South-Western College Publishing. Wooldridge covers the same material with a somewhat more mathematical treatment.

COURSE WEBSITE:

Information related to the course, including announcements, homework assignments, and other course materials will be available through UF's Canvas "E-learning"system (http://lss.at.ufl.edu/).

GRADING

Homework Assignments: 30%
In-Class Quizzes: 25%
Replication Project: 35% (one-page proposal due: February 6th, Presentations: last week of class)
Attendance, Participation, Course Evaluation Completion: 10%

Grading Scale:

A	93	-	100	4.00	C	72	-	74	2.00
A-	87	-	92	3.67	C-	69	-	71	1.67
B+	84	-	86	3.33	D+	65	-	68	1.33
B	81	-	83	3.00	D	60	-	64	1.00
B-	78	-	80	2.67	D-	56	-	59	0.67
C+	75	-	77	2.33	E	<56			0.00

ASSIGNMENTS

There will be regular **homework** assignments (HWs), which will include some empirical analysis. You will use STATA to answer the empirical questions. Please submit electronic copies of your homework assignments through Canvas (either handwritten and scanned, or neatly typed) **before class** on the day they are due (The exact due dates and times will be specified on each assignment). And, bring hard copies of your assignments to the class for review and grading. Please attach the STATA log to your assignment. Only one randomly drawn question in each HW will be graded, and the grade for the selected question will constitute your total score for that HW. Assignments handed in or uploaded after the answers are discussed in class will receive no credit. At the end of the semester, the lowest two homework scores will be dropped.

You are encouraged to work with other students on the homework assignments, but each student must write up and submit his/her answers and STATA logs separately. Study groups of maximum 3 students are allowed; you must include the names of your **study group** mates on your assignments.

Regular, 15-minute, 10-question in-class **quizzes** will make up 25% of your overall grade. Quizzes aim to quickly review recently covered material. These will typically take place on Thursdays at the beginning of class time at 9:35AM. At the end of the semester, the lowest two quiz scores will be dropped.

No make-ups will be given for any missed assignments.

SOFTWARE:

We will use **Stata** for empirical applications. No prior knowledge of STATA is necessary, as I will share tutorials to help you learn.
Stata is available at UF Apps for free (https://info.apps.ufl.edu)
Purchasing STATA is not necessary for the course. However, if you still wish to get your own copy of STATA, discounted rates for students is available at
https://www.stata.com/order/new/edu/gradplans/student-pricing/ .

REPLICATION PROJECT:

The term paper assignment is to replicate the relevant tables from one empirical paper that interests you. You will need to work steadily throughout the semester on this project.

If you prefer to carry out this project as a **team of two**, you may do so. In that case, both team members will receive the same grade for the term project.

Suggestions for choosing the replication paper:
- The paper must be published in a peer-reviewed journal, and must have empirical econometric content.
- You need not replicate every table in the paper. Choose 2-3 main tables that provide evidence for the main point of the paper.
- You should understand the main conceptual point of the paper you choose, and be ready to present it in front of your classmates.
- The data used for the paper should be available. The methods used in the paper should be accessible to students in an introductory econometrics course (Older, seminal papers may be easier to replicate).

What you need to turn in for your replication term project:
Submit the following files through Canvas/E learning:
1. The main document (**LASTNAME.docx** or **LASTNAME.tex**) that you author. (More details on this document later).
2. Your **STATA do-file**: I should be able to replicate your results using this do-file and the data file you submit. You should try to have one main do-file that includes your complete code for creating the tables you replicate. If you must have subsidiary do-files to accomplish the replication, submit those as well. Include plenty of comments in your do-file to make it easier for me to navigate your code.
3. The **dataset** that you assembled (or, simply downloaded) to replicate the paper.
4. The **original paper** that you replicate.

Outline

Introduction and review of statistics, SW Ch. # 2,3

Introduction to STATA (Tutorial)

Bivariate regression, SW Ch. # 4

Hypothesis Testing and Confidence Intervals (Bivariate Regression), SW Ch. # 5

Multivariate Regression, SW Ch. # 6

Hypothesis Testing and Confidence Intervals (Multivariate Regression), SW Ch. # 7

Nonlinear Regression Functions, SW Ch. # 8

Assessing validity of multiple regression models, SW Ch. # 9

Regression with Panel Data, SW Ch. # 10

Regression with Binary Dependent Variable, SW Ch. # 11

Presentation of Replication Projects

* I hold the right to make changes to this syllabus as needed.

UF POLICIES AND GUIDELINES

Students Requiring Accommodations
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor within the first two weeks of the semester.

Course Evaluation
Students are expected to complete online course evaluations at https://evaluations.ufl.edu/evals. Evaluations are typically open during the last two or three weeks of the semester, students will be notified of the specific times they are open.

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have any questions or concerns, please consult with the instructor.

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

Student Privacy
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html

Campus Resources:
Health and Wellness

> **U Matter, We Care:**
> If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
> **Counseling and Wellness Center:** http://www.counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.
> **Sexual Assault Recovery Services (SARS)**
> Student Health Care Center, 392-1161.
> **University Police Department** at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

Academic Resources

> **E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.
> **Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. https://www.crc.ufl.edu/.
> **Library Support**, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.
> **Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/