

The George Washington University
Syllabus for IAFF 6502.31: Stata: Fundamentals

Instructor

Name: Yuxuan Huang

E-mail: yxhuang@gwu.edu

Course Information

Location: Rome B104

Lecture: Saturday 09:00AM –12:00PM (Aug 31, Sep 7,14,21)

Office hours: Friday 2-3pm. (Please send me an email before coming)

Course Description

IAFF 6502.26 is a four-week Stata introduction course that will cover basics skills for students to get hands on using Stata for data analysis. This course provides basic introduction to Stata software and its applications on data management, data analysis and econometric modeling.

The classroom is a computer lab with Stata installed. You can gain access from the GWU Columbian Cloud Portal (apps.ccas.gwu.edu). Also, you can have access to Stata program on laptops at Gelman library first floor and second floor. You may purchase Stata from Stata website: <https://www.stata.com/order/new/edu/gradplans/student-pricing/>.

Workload Expectation Statement

In this 1 credit graduate skills course students are expected to work for a total of 37.5 hours. This includes 12 hours of time spent in class plus 25.5 hours of independent work.

Assignments and Grading

There will be two assignments in this course. They will be posted on the Blackboard after the second and the last classes. The due date of the assignments are the following Fridays (Sep. 13 and Sep. 27, before midnight).

Each of them counts as 50% of the total score. Assignments are expected to be completed by due date. Assignments submitted more than 2 days after the due date will not be accepted. For every day the assignment is late after the assignment is due, 25% will be deducted from the assignment score.

Useful book and online resources:

Books:

Alan C. Acock (2018). A gentle introduction to Stata (Sixth edition). Stata press.

Frauke Kreuter and Ulrich Kohler (2012) Data Analysis Using Stata, Third Edition. Stata Press

J. Scott Long and Jeremy Freese (2014) Regression Models for Categorical Dependent Variables Using Stata, Third Edition,

Nicholas J. Cox (2014) Speaking Stata Graphics: A Collection from the Stata Journal. Stata Press

Online free resource:

UCLA Institute for Digital Research and Education: <https://stats.idre.ucla.edu/stata/>

Stata cheat sheets: <https://www.stata.com/bookstore/stata-cheat-sheets/>

Princeton Data and Statistical Services: <http://www.princeton.edu/~otorres/Stata/>

Stata video tutorials: <https://www.youtube.com/user/StataCorp>

Internet Guide to Stata: <http://wlm.userweb.mwn.de/Stata/>

Introduction to Stata: (based on Stata 10)

<http://personal.lse.ac.uk/lembcke/ecStata/2009/MResStataNotesJan2009PartA.pdf>

Course Outline

1. Introduction to Stata

1.1. Stata interface and environment

1.1.1. Menu / command line/ do-file input

1.2. Importing /saving data

1.2.1. Stata data file

1.2.2. Data file types transformation

1.3. Basic Data Management

1.3.1. Variable operations

1.3.2. Drop /keep / sort /if commands

1.4. Getting Help

1.4.1. Basic Stata commands

1.4.2. Help/ search

2. Graph plotting

2.1. Univariate Charts

2.1.1. Bar chart

2.1.2. Histograms

2.1.3. Box plots

2.2. Bivariate Charts

2.2.1. Scatter plots

2.2.2. Time series plots

2.3. Intermediate graph options

2.3.1. Overlaying and combining graphs

2.3.2. Chart elements control

2.3.3. Saving and exporting graphs

3. Data Management and basic regression

3.1. Appending and merging data files

3.2. Data cleaning

3.2.1. Handling duplicates

3.2.2. Missing data

3.3. Looping

3.4. Keyword "by"

3.5. Long vs wide data form (reshaping data)

3.6. Linear regression

3.6.1. Simple regression / Multivariate regression

3.6.2. Hypothesis testing / Omitted variable bias

4. More Econometric Applications

4.1. Time series / Panel data regression

4.2. Logistic /Probit Regression

4.3. IV regression

4.4. Publishing results

University Policies & Services

Academic Integrity Code

Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information. For details and complete code, see: studentconduct.gwu.edu/code-academic-integrity

Sharing of Course Content*

Unauthorized downloading, distributing, or sharing of any part of a recorded lecture or course materials, as well as using provided information for purposes other than the student's own learning may be deemed a violation of GW's Student Conduct Code.

Use of Student Work (FERPA)*

The professor will use academic work that you complete during this semester for educational purposes in this course during this semester. Your registration and continued enrollment constitute your consent.

Accommodations for Students with Disabilities

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Rome Hall, Suite 102, to establish eligibility and to coordinate reasonable accommodations. For additional information see: disabilitysupport.gwu.edu/

Religious Observances

In accordance with University policy, students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance. For details and policy, see: students.gwu.edu/accommodations-religious-holidays.

Mental Health Services 202-994-5300

The University's Mental Health Services offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations confidential assessment, counseling services (individual and small group), and referrals. For additional information see: counselingcenter.gwu.edu/

Emergency Preparedness and Response Procedures

The University has asked all faculty to inform students of these procedures, prepared by the GW Office of Public Safety and Emergency Management in collaboration with the Office of the Executive Vice President for Academic Affairs.

To Report an Emergency or Suspicious Activity

Call the University Police Department at 202-994-6111 (Foggy Bottom) or 202-242-6111 (Mount Vernon).

Shelter in Place – General Guidance

Although it is unlikely that we will ever need to shelter in place, it is helpful to know what to do just in case. No matter where you are, the basic steps of shelter in place will generally remain the same.

- If you are inside, stay where you are unless the building you are in is affected. If it is affected, you should evacuate. If you are outdoors, proceed into the closest building or follow instructions from emergency personnel on the scene.
- Locate an interior room to shelter inside. If possible, it should be above ground level and have the fewest number of windows. If sheltering in a room with windows, move away from the windows. If there is a large group of people inside a particular building, several rooms may be necessary.
- Shut and lock all windows (for a tighter seal) and close exterior doors.
- Turn off air conditioners, heaters, and fans. Close vents to ventilation systems as you are able. (University staff will turn off ventilation systems as quickly as possible).
- Make a list of the people with you and ask someone to call the list in to UPD so they know where you are sheltering and who is with you. If only students are present, one of the students should call in the list.
- Await further instructions. If possible, visit GW Campus Advisories for incident updates (<http://CampusAdvisories.gwu.edu>) or call the GW Information Line 202-994-5050.
- Make yourself comfortable and look after one other. You will get word as soon as it is safe to come out.

Evacuation

An evacuation will be considered if the building we are in is affected or we must move to a location of greater safety. We will always evacuate if the fire alarm sounds. In the event of an evacuation, please gather your personal belongings quickly (purse, keys, GWorld card, etc.) and proceed to the nearest exit. Every classroom has a map at the door designating both the shortest egress and an alternate egress. Anyone who is physically unable to walk down the stairs should wait in the stairwell, behind the closed doors. Firemen will check the stairwells upon entering the building.

Once you have evacuated the building, proceed to our primary rendezvous location: the court yard area between the GW Hospital and Ross Hall. In the event that this location is unavailable, we will meet on the ground level of the Visitors Parking Garage (I Street entrance, at 22nd Street). From our rendezvous location, we will await instructions to re-enter the School.

Alert DC

Alert DC provides free notification by e-mail or text message during an emergency. Visit GW Campus Advisories for a link and instructions on how to sign up for alerts pertaining to GW. If you receive an Alert DC notification during class, you are encouraged to share the information immediately.

GW Alert

GW Alert provides popup notification to desktop and laptop computers during an emergency. In the event that we receive an alert to the computer in our classroom, we will follow the instructions given. You are also encouraged to download this application to your personal computer. Visit GW Campus Advisories to learn how.

Additional Information

Additional information about emergency preparedness and response at GW or the University's operating status can be found on GW Campus Advisories (<http://CampusAdvisories.gwu.edu>) or by calling the GW Information Line at 202-994-5050.