

Course Syllabus

CCJ 5740 – Data Analysis
Fall 2022 - Criminology Building 214
Monday 11:00 AM - 1:30 PM

Professor: Dr. Brian Stults
Email: bstults@fsu.edu
Phone: 850-645-7376

Office Hours:
Monday 1:30-3:30 pm; Wednesday 10am-12pm

Course Objectives

In this course you will learn to conduct research using multiple regression analysis using the Stata statistical software package. We will begin with a brief review of univariate and bivariate statistics, but we will spend the majority of the semester discussing and practicing regression analysis with real data. Topics will include the use of dummy variables, nonlinear effects, and interaction effects. Throughout the course we will focus on the assumptions of the regression model, the consequences of violating those assumptions, and what to do when those assumptions are violated. After successfully completing this course students will be able to do the following:

- conduct and interpret data analysis using ordinary least squares (OLS) regression
- evaluate and address violations of the assumptions of OLS regression
- evaluate and address multicollinearity and influence
- conduct regression analysis that includes dummy variables, nonlinear effects, and conditional effects
- write a research paper using existing data to generate a thorough analysis based on OLS regression
- effectively complete all of the objectives above using the Stata statistical software package

Required Texts

McClendon, McKee J. 2002. *Multiple Regression and Causal Analysis*. Prospect Heights, IL: Waveland Press. ISBN: 9781577662433

Allison, Paul D. 1999. *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge Press. ISBN: 9780761985334

Grading

Your grade will be based on the following requirements:

1) *Assignments*

You will be given five assignments throughout the semester. These will involve using Stata to conduct and interpret the statistical analysis that you are learning from the lectures and readings. You are free to discuss the assignments with fellow students, but the work you turn in must be your own. Assignments must be submitted on Canvas by the start of the class period. Due dates are posted in the schedule below and in the course calendar on Canvas. Each assignment will be worth 20 points.

2) Quizzes

Throughout the semester we will have 4 quizzes. These will be timed quizzes that you will take on Canvas. Most questions will be in short-answer format, though some will involve hand calculations. The short answers will be typed directly into Canvas. The hand calculations will be done on paper. You will then take a photo of (or scan) your hand-written answers and submit them to me within 30 minutes after you complete the quiz. The quizzes will be based entirely on the material from the lectures and readings. Each quiz will be made available on the Monday of the class when we finish discussing the material, and it must be completed by the start of class on the following Monday. Due dates are posted in the schedule below and in the course calendar on Canvas. Each quiz will be worth 25 points.

3) Term paper

Each student is required to submit a term paper on any topic that interests you within the field of criminology and criminal justice. You will determine the topic of the paper, but it must be approved by me no later than the date noted in the course schedule. The paper must be of graduate student quality, about 15 pages double-spaced, and formatted in accordance with the standards of a major social science journal (e.g. Criminology, JRCD, JQ, SP, etc).

Though the substantive topic of the paper is up to you, it must employ the statistical methods that we cover in the course. Detailed instructions and guidelines will be provided later in the semester. The completed paper must be submitted on Canvas no later than the due date noted in the course schedule. The term paper will be worth 200 points.

Therefore, your grade for this course will be based on the following criteria and cut-offs:

Take-home assignments	25%
In-class quizzes	25%
Term paper	50%

A	372-400	B	332-347	C	292-307	D	252-267
A-	360-371	B-	320-331	C-	280-291	D-	240-251
B+	348-359	C+	308-319	D+	268-279	F	0-239

Public Health Protocols

The CDC recommends that all individuals, even vaccinated individuals, wear proper and well-fitting masks in public indoor spaces, like classrooms, especially where social distancing is not possible and virus rates are high. The CDC assesses the infection rate in Leon County as High.

Florida is experiencing a surge of the Omicron BA.5 variant, the most easily transmissible Covid variant to date, which is able to evade previous immunity from infection and vaccination. It is a much more transmissible variant than the original virus, the Delta variant, or even the earlier Omicron variants. It can infect even vaccinated individuals and can be spread by them to others. It poses a special threat to members of the community with underlying health conditions and family members vulnerable to the virus. The best way to protect against serious illness is to be fully vaccinated, but not everyone among us can be.

For these reasons, FSU expects each of us to continue cooperating with common-sense public health protocols, including (1) getting vaccinated and boosted, (2) testing for the virus if you have symptoms, (3) staying home and away from others if you are sick, and (4) masking in public indoor spaces to protect yourself and others whenever there is reason for concern. Please remember that you should NOT attend class in person if you have tested positive for Covid-19 or are in quarantine.

Attendance Policy

You must attend class each week, complete and return all assignments, and take all quizzes. There will not be any opportunities for extra credit. Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

HB233 Recording Policy

In this class, consistent with state law (HB233) and university policy, students are permitted to make recordings of class lectures for personal use only. As noted, sharing, posting, or publishing classroom recordings may subject you to honor code violations and legal penalties associated with theft of intellectual property and violations of other state law. Moreover, students and educators have expressed concern that recording classroom activities may negatively impact the learning experience for others, especially in classes that involve questions, discussion, or participation. To protect a learning environment in which everyone feels free to experiment with ideas, we ask you refrain from recording in ways that could make others feel reluctant to ask questions, explore new ideas, or otherwise participate

in class. Students must monitor their recording so that they do not include participation by other students without permission. Students with disabilities will continue to have appropriate accommodations for recordings as established by the Office of Accessibility Services.

Academic Honor Policy

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University" (**Florida State University Academic Honor Policy** (<http://fda.fsu.edu/Academics/Academic-Honor-Policy>)).

Americans with Disabilities Act

Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Office of Accessibility Services; and
- (2) request a letter from the Office of Accessibility Services to be sent to the instructor indicating the need for accommodation and what type; and
- (3) meet (in person, via phone, email, skype, zoom, etc...) with each instructor to whom a letter of accommodation was sent to review approved accommodations.

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the **Office of Accessibility Services** (<https://dsst.fsu.edu/oas/>) at:

874 Traditions Way 108 Student Services Building	(850) 644-9566 (voice)
Florida State University	(850) 644-8504 (TDD)
Tallahassee, FL 32306-4167	oas@fsu.edu (mailto:oas@fsu.edu)

Course Schedule






Week of	Topic	Chapters	
		McClendon	Allison







08/22	Introduction and Overview		
08/29	Statistics Review Introduction to Stata	1	1
09/05	NO CLASS - Labor Day		
09/12	Bivariate Regression Assignment 1 due today by start of class	2	5
09/19	Introduction to Multivariate Regression Quiz 1 due by start of class (based on 8/29, 9/12)	3	2
09/26	Introduction to Multivariate Regression	3 (cont.)	3, 4
10/03	Significance Testing Assignment 2 due today by start of class	4	
10/10	Regression Assumptions and Influence Quiz 2 due by start of class (based on 9/19, 9/26, 10/03)	4 (cont.)	6
10/17	Regression Assumptions and Influence Assignment 3 due today by start of class	4 (cont.)	
10/24	Multicollinearity and Indexes		7
10/31	Dummy Variables Quiz 3 due by start of class (based on 10/10, 10/17, 10/24)	5	

11/07	Non-linear Relationships Assignment 4 due today by start of class Last day to receive paper topic approval – Friday, 11/11	6	8.1-8.5
11/14	NO CLASS - ASC Conference		
11/21	Interaction Effects	7	8.6-8.7
11/28	Direct, Indirect, and Spurious Effects Assignment 5 due today by start of class Quiz 4 due Friday, Dec. 2, by 11:59 PM (based on 10/31, 11/07, 11/21)	8	
	Final Paper due Thursday, 12/08		

* Except for changes that substantially affect implementation of grading, this syllabus is a guide for the course and is subject to change with advance notice.

Course Summary:

Date	Details	Due
Mon Sep 12, 2022	 Assignment 1 (https://fsu.instructure.com/courses/211427/assignments/1704606)	due by 11am
Mon Sep 19, 2022	 Quiz 1 (https://fsu.instructure.com/courses/211427/assignments/1704605)	due by 11am
Mon Oct 3, 2022	 Assignment 2 (https://fsu.instructure.com/courses/211427/assignments/1704607)	due by 11am
Mon Oct 10, 2022	 Quiz 2 (https://fsu.instructure.com/courses/211427/assignments/1704602)	due by 11am
Mon Oct 17, 2022	 Assignment 3 (https://fsu.instructure.com/courses/211427/assignments/1704608)	due by 11am

Date	Details	Due
Mon Oct 31, 2022	 Quiz 3 (https://fsu.instructure.com/courses/211427/assignments/1704604)	due by 11am
Mon Nov 7, 2022	 Assignment 4 (https://fsu.instructure.com/courses/211427/assignments/1704609)	due by 11am
Mon Nov 28, 2022	 Assignment 5 (https://fsu.instructure.com/courses/211427/assignments/1704610)	due by 11am
Fri Dec 2, 2022	 Quiz 4 (https://fsu.instructure.com/courses/211427/assignments/1704603)	due by 11:59pm
Thu Dec 8, 2022	 Final paper (https://fsu.instructure.com/courses/211427/assignments/1704611)	due by 11:59pm
	 Quiz 1 upload location (https://fsu.instructure.com/courses/211427/assignments/1704612)	