

CRIM 515: Criminal Justice Research Methods & Data Analysis



College of Humanities and Social Sciences
Department of Criminology, Law & Society

Fall 2023

CRIM 515-DL2, Class #[79153](#)

Instructor: Dr. Matthew D'Anna

[Bio](#) | [Email](#) | [Phone](#) | [Projects](#) | [Office hours](#) | [Zoom](#)

Meeting Dates & Location:

21 August – 11 December 2023

Mondays at 7:30 PM - 10:00 PM

[Blackboard](#)

Class Materials:



[RStudio](#) (now Posit)



[Google Drive](#) and/or [Microsoft OneDrive](#)



Various publicly available/open source datasets



[Readings and lectures provided as necessary](#)

Course Description:

This course addresses methods of scientific inquiry applied to criminal justice issues. Over the duration of the semester students will become both intelligent consumers of scientific knowledge, and creators of research. Specifically, this includes the formulation of research questions, logic of inquiry, research design, observation, measurement, and introduction to social statistics and applications to criminal justice data analysis. Students should develop an understanding of the research process, the language of research, analytic tools and data sources, and the scientific method for evaluating scholarly research articles. Students will also learn to critique research and present data in agency reports. This course can

be considered preparation for CRIM 517: Research Practicum, as well as [professional opportunities like this one](#).

This course fosters a hands-on, skill-based, and interactive environment for learning these principles. Thus, this course utilizes current technology and contemporary computer programs commonly used in functional criminal justice research settings. Students will be exposed to real data and real research questions. While detailed instructions are provided throughout the semester, students should enter this course with a general comfort with computers and the ability to perform basic functions. I can help with most of your technical issues, but necessarily everything. Keep in mind that the [George Mason IT HelpDesk](#) as a reference for some of your tech needs!

CRIM 515 seeks to provide simple answers to complex questions and complex answers to simple questions, while simulating short-term high-pressure real-world environments.

Evaluation:

100 points

Skills:

15 points

Projects:

60 points

Final:

25 points

Grade Scale:

Grade	Points	GPA
A+	100-97	4.00
A	96-93	4.00
A-	92-90	3.67
B+	89-87	3.33
B	86-83	3.00
B-	82-80	2.67
C	79-70	2.00
D	69-60	1.00
F	59-0	0.00

Skills:

There are three skill-based exercises during the semester worth 5 points each; totalling 15% of the overall grade. Each exercise teaches students different techniques for visualizing data. Working as a collective is fine, but each student must turn in a unique product.

Projects:

There are three projects during the semester worth 20 points each; totalling 60% of the overall grade. The projects expose students to different criminal justice topics, combining a unique blend of qualitative and quantitative analytic techniques using a variety of software applications and research methods. Research projects will have a general structure, with room for each student to develop their own methods to answer the question. While group cooperation is not discouraged, each student must turn in a unique product for each project.

Final:

The final consists of a project worth 25 points (25% of the overall grade). The topics will be discussed throughout the semester, and will be based on real data from the City of Fairfax Police Department. The project will apply various skills developed over the course of the semester.

This project will be a presentation of your findings to the City of Fairfax Police Department Command Staff, tentatively scheduled for the day of our final, 12/11/2023, time TBD.

Extra Credit:

There is an opportunity for 2 extra credit points during the semester. See [here](#) for further details.

City of Fairfax Data Disclaimer:

Please read [Assignment 0](#) here. After reading, please submit on [Blackboard](#).

Miscellaneous stuff:Blackboard:

This course is paperless and uses Blackboard extensively. It is recommended to check it regularly for any news and updates. New Blackboard users seeking assistance can contact 703.993.8870 or courses@gmu.edu.

Emergencies:

Check the George Mason homepage and register for GMU's [emergency alert system](#). In the event of any class-specific cancellations, students will be notified as soon as possible.

Disability information:

If you are a student with a disability and require special academic accommodations, please see me and contact [Disability Services](#) (703.993.2474) to ensure your documentation is on file.

Assistance services:

- Students seeking help with their writing skills can contact the [University Writing Center](#).
- If you are in personal distress, please contact [Counseling and Psychological Services](#).
- Non-native English speakers seeking linguistic and cultural enrichment services can contact the George Mason [English Language Institute](#).
- The [Center for the Advancement of Well-Being](#) (CWB) is an interdisciplinary center promoting the science and practice of healthy living.
- And many more! [See here for a comprehensive list of services available to you](#).

Academic integrity:

George Mason University has an Honor Code that requires all members of this community to maintain the highest standards of academic honesty and integrity. Cheating, plagiarism, lying, stealing, and even improper use of technology such as ChatGPT are all prohibited. All violations will be reported to the Honor Committee. See [The Mason Honor Code](#) and the [Office of Academic Integrity](#) for further information. Don't cheat. Just. Don't. Cheat.

Enrollment:

Students are responsible for verifying their enrollment in this class. Schedule adjustments should be made by the deadlines published in the [Schedule of Classes](#).

After the last day to drop a class, withdrawing from this class requires the approval of the Dean and is only allowed for non-academic reasons. See the [University Catalog](#) for selective withdrawal procedures and any additional information.

Faculty evaluation:

This course will be using the Student Evaluation of Teaching (SET) form. It will be administered via a link provided in Blackboard. Candid, honest, and fair feedback is welcome and appreciated to further improve and refine this course.

If we get __ total responses, EVERYONE gets __pts extra credit.

Video recording

This course is technically hybrid, with most sessions live and in-person. Any accompanying online content will be recorded via [Zoom](#) and made available on [Blackboard](#). Any recording of this course without prior consent is strictly prohibited.

Jobs & Internships:

Throughout the semester, information will be made available about jobs and internships relevant to this course, and the criminal justice field in general. [This file will be regularly updated as opportunities arise](#); check often for updated information.

Office hours:

Given my schedule and the timing of this course, office hours are a bit non-traditional. Aside from our regularly scheduled weekly classes, questions are bound to arise. That's good, and expected. I'm on

campus and available on Thursday afternoons. [Email](#) will always be the best initial means to communicate. As necessary, we can also schedule Zoom conversations as a form of office hours.

Course Outline:

Class	Date	Topic	Assignment	Due
1	8/21/2023	Introduction, Orientation, Overview	Assignment 0	
		Introduction to R, RStudio, and RMarkdown	Sample Script	
2	8/28/2023	Graphing	Exercise 1	Assignment 0
	9/4/2023	LABOR DAY - NO CLASS		
3	9/11/2023	Mass shootings and public opinion	Project 1	Exercise 1
4	9/18/2023			Final Project
5	9/25/2023			
6	10/2/2023	Mapping	Exercise 2	
7	10/10/2023	Police shootings and public opinion	Project 2	Project 1
8	10/16/2023			Exercise 2
9	10/23/2023	Final Project		
10	10/30/2023	Wordclouds	Exercise 3	
11	11/6/2023	CLS research studies and your opinion	Project 3	Project 2
12	11/13/2023			Exercise 3
13	11/20/2023	Final Project		
14	11/27/2023			Project 3
	12/4/2023	READING DAY - NO CLASS		
	12/11/2023	Final Project Presentations at City of Fairfax Police Department		Final Project
				Extra Credit