



CRIMINAL JUSTICE RESEARCH METHODS

01:202:307:01

Fall 2025

Instructor: Sinan Celiksu, Ph.D.

Course Meeting: Tuesdays and Thursdays, 3:50PM – 5:10PM

Student Support Hours: Mondays 1:30pm to 2:30pm, Thursdays – 1:30 pm to 3:30 pm & By appointment

Office Location: LSH Room 349

Email: sc2206@crimjust.rutgers.edu

Course Description:

This course introduces tools of quantitative reasoning and statistics that can be used to address problems in basic research and policy within the social sciences, particularly in the criminal justice field. The primary objectives of the course are to build familiarity with the fundamentals of probability and statistical analysis, central concepts of research design, and norms of ethical behavior in research.

Learning Outcomes: This course aims to help students achieve learning goal (1c) of the program in Criminal Justice to develop competence in research methods. It also helps students achieve learning goal (2) by developing critical thinking and is essential predicate for learning goal (3), the production of independent scholarship. (For the full description of the program's learning goals, see <http://nbcjm.rutgers.edu/academics/program-info/learning-goals>.)

Prerequisites: This course is limited to degree students who have completed 01:202:201 or 21:202:103 or 50:202:201 or 47:202:103. While this course does not assume any background in probability or statistics, students are encouraged to have completed at least one term of college-level math.

Satisfying the goals of the course satisfies the Core Curriculum goal QQ:

Student is able to... **Formulate, evaluate, and communicate conclusions and inferences from quantitative information.**



DEPARTMENT LEARNING GOALS

1. COMPETENCE:

a. **Theory.** Students who complete the major in criminal justice should understand and be able to articulate, both orally and in writing, the core theoretical concepts that form the foundation of analysis and research in criminology and criminal justice today. Core concepts are derived from explanations of crime from a variety of perspectives, including biogenic, psychological, and sociological approaches. Students should be familiar with the myriad theories of crime that are informed by these perspectives, including: classical, control, critical, ecology, labeling, learning, strain, and trait-based approaches. Theoretical literacy should extend to multicultural and international understanding.

b. **Institutions.** Students who complete the major in criminal justice should understand the special role of three types of institutions: Police, Courts, and Corrections. In addition, students should know how institutional forms vary across jurisdictions and how these institutions interact with and influence each other.

c. **Research Methods.** Students who complete the criminal justice major should be familiar with the tools, techniques, and data sources necessary for empirical analysis and methodological literacy, with an applied focus on crime, public safety, and justice-related contexts. Students should understand the various ways that evidence, the scientific method, and social science paradigms shape how we describe and explain CJ-related phenomena, and how theories and policies are developed, tested, and critiqued. They should be able to analyze data using computer applications and should be familiar with basic statistical principles, techniques, and quantitative literacy. They should be able to read and assess research from a wide range of sources, including general interest, academic, and government publications.

d. **Social Justice and Diversity.** Students who complete the major in criminal justice should understand how the various axes of power and inequality affect how the criminal justice system functions and is experienced. Students should understand how diverse experiences inform theories and concepts in criminal justice and how criminal justice institutions operate differently along dimensions of race, class, gender, and other identities, across varied communities within the United States and in various parts of the world.

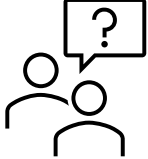
2. CRITICAL THINKING:

Upon completion of the major, students should be able to apply their understanding of core concepts and research tools to analyze real world problems, and evaluate alternative policy proposals on a range of criminal justice issues, from micro-level analyses relevant to particular cases, to management concerns, to macro-level analyses of legislative and other broad-scale policies. Such analyses should be sensitive to questions of diversity, equity, and inclusion. Students should be equipped with the methodological skills to critically examine how public and private interests and structures may (re)produce asymmetries of power and inequality along various axes such as race/ethnicity, gender, class, citizenship, and geography. Attaining this goal will require that students apply their theoretical, methodological, and analytic skills to criminal justice structures, policies, and dilemmas both in the U.S. and comparative contexts.

3. SCHOLARSHIP:

Qualified majors should have an opportunity, through such avenues as advanced coursework, internships, and faculty interactions, to conduct independent research on matters of central relevance to the field of criminal justice and adversely affected communities. Topics that center historically marginalized groups are welcome, along with research projects that might yield meaningful findings for historically subjugated or minoritized communities

General Rules:

	<p>Read the Syllabus! Before contacting me with questions, please consult the syllabus first to see details about the course. In most cases, the answer to your question is already in the syllabus.</p>		<p>Cell Phones and Computers</p> <p>Please turn off your cell phone and computers during the in-class sessions. If you have an emergency that requires you to stay in reachable, or if you have a disability preventing you from taking notes on paper, please contact me for arrangements before each such class session.</p>
	<p><u>Attendance and Participation</u></p> <p>In order you can get full participation points, you need to show up and join the in-class activities in a meaningful and productive manner.</p>		<p>Budget Your Time. Canvas issues are not an excuse – submit your work early.</p>
	<p>Email Etiquette.</p> <p>- Do not forget to write the name of the class in the subject line for each email.</p> <p>Do not forget to write your full name.</p> <p>Please use proper sentences.</p> <p>Use proper ways of addressing the instructor.</p> <p>Do not use abbreviations.</p>		<p>Student Support Hours.</p> <p>Please do come to student support hours for any support that you may need in your studies. Please do not hesitate to make arrangements outside of scheduled office hours.</p> <p>Alternatively, we can meet in person after the in-class session.</p>
	<p>Help! If you need help, let me know when life is happening.</p> <p><u>Do not wait until the end,</u> when there is nothing we can do.</p> <p><u>YOU DO NOT HAVE TO</u> tell me what your problem or situation is (if you do, I will do my best to help). Please reach out as early as possible so that we can work out a solution together.</p>		<p>Check Your Email! You MUST check your Rutgers email and Canvas Messages regularly.</p>

COMMUNICATION PROTOCOL

1. Announcements will be posted regularly on Canvas. Please check them regularly for important information about upcoming assignments and class concerns.
2. To ensure that you have the resources you need to succeed, I have allocated time for office hours/student support hours. These are opportunities for you to meet with me and address any questions or concerns you may have. Some reasons you may want to meet with me during office hours include:
 1. Clarify and ask questions about course content. If you are confused about class material, ask your professor to explain it differently or walk through it slowly with you. Ask questions that you have about the text or what has been covered/learned in class.
 2. Get study ideas. There are many strategies that can be used for any class, but some subjects have specific strategies that work particularly well for that class. Your professor may have tips about ways to tailor your studying towards that particular class.
 3. Ask questions about the syllabus, upcoming assignments, and due dates. After carefully reading the syllabus and any assignment prompts, confirm important dates and information with your professor if you are still not certain about them.
 4. Prepare for an upcoming assignment. Many assignments will require you to practice new and developing skills. If you have an upcoming project or paper, office hours can be an appropriate place to discuss your ideas and your instructor's expectations.
 5. Review an exam or a paper you wrote. Many students do not do as well as they expected on papers and exams at least once in college. Office hours is an appropriate setting to talk about what you did wrong, what went well, and how to improve on your next paper or exam.
 6. Talk about grades. If you are unhappy with your grade or have questions about why your grade is what it is, office hours are the appropriate place to talk about it.
3. I will be available for office hours in real-time once per week. I encourage you to take advantage of this opportunity to get the support you need. If you have any questions about office hours, please don't hesitate to reach out. I am here to help!
4. I have also established the following guidelines for email communication:
 1. Please feel free to email me with any questions or concerns. I generally respond to emails within 48 hours, excluding weekends and holidays. If you don't receive a response within that timeframe, please feel free to follow up.
 2. When communicating online, please be sure to include your name and the name of the class you are writing about in the subject line. (Alternatively, you can use Canvas messages for a more streamlined experience.)
 3. Use clear and concise language and a formal writing style. Avoid slang, texting language, and emoticons, and be cautious with humor or sarcasm as tone can be lost in electronic communication.
 4. Use standard fonts and a size 12 or 14 pt. font for easy readability. Avoid using the caps lock feature as it can be interpreted as yelling.
 5. Be careful with personal information shared in your messages, both yours and others'.

I am here to support you and want to make sure you have the resources you need to succeed. Please don't hesitate to reach out with any questions or concerns. I look forward to working with you!

COURSE REQUIREMENTS:

Grading Weights:	
1. Participation and Classwork X10	20% ^s
2. Prep Work X10	20 %
3. Midterm Exam	10%
4. Homework Assignments X 10	20 %
5. Practice Exam	15%
5. Final Exam	15%
Total	100 pts

1. Access to a computer

This course requires that all students have a computer during classes and exams at all times. Unfortunately, this class is not being offered in a computer lab, so you will have to bring in computers to the class. You need to download and install Microsoft Office Excel on your computer, which is provided to all Rutgers students at no cost. Please reach out to Rutgers IT helpdesk for any technical issues and help with installation. If you do not have access to a laptop computer, please reach out to the office of the Dean of Students and see if they can arrange one for you.

2. Required Text

1. Free, Open Textbook, available online:

Watts, Valerie (2025). Introduction to Statistics, an Excel-based Approach, Fanshawe College Books.

This link to the textbook is for your reference only. Please use the Perusall link on Canvas to access and read the book, which will be part of your weekly graded prep work.

<https://ecampusontario.pressbooks.pub/introstats/front-matter/acknowledgements/>

2. A fun and accessible, not pricey, supplementary book

Klein, G. & Dabney, A. (2013). *The cartoon introduction to statistics* (First). Hill and Wang a Division of Farrar Straus and Giroux.

3. Attendance, Participation, and class work (10X2=20 pts)

I expect you to attend in every class session throughout the semester. The topics covered in this class build on each other, so missing a class will hinder your understanding of the next topic. Attendance will be taken in every class session. In the case of extended absences, students may obtain a note from the Office of the Dean of Students to authenticate the absence with appropriate documentation. In this case, reasonable accommodations will be made to allow you to make up work that counts toward your semester grade. Absences due to religious observance, participation in university-sponsored events or activities such as intercollegiate athletics, or documented chronic illness are treated as authenticated absences. Authenticated absences do not

waive the overall attendance policy. If you miss a class, please make sure to catch up by using office hours. I look forward to working with you and helping you succeed in this course.

Participation grades are going to be based on the following criteria:

- Submission of in-class work by the end of the class: most weight
- Active participation in class sessions by asking questions and responding to the instructor's prompts,
- Taking an active role in the occasional group works,
- Submitting assignments before the due date,
- Corresponding with the instructor about the contents of the course,
- Coming to office hours for make-up work and instruction,
- Attending the in-class sessions.

Please make sure you sign with the same signature on all attendance sheets. You may have two unexcused absences and still get a perfect attendance score. You are strongly encouraged to attend every lecture, since much of the material on the exams will be covered only in lecture--not in the readings or on any slides posted on the web-site. Furthermore, whether present or not, you are responsible for all information covered and any assignments made in every class. If you have an excused absence, reasonable accommodations will be made to allow you to make up work that counts toward your semester grade. Please feel free to ask me about the contents of a missed class. I prefer you consult another student first. If you have an excusable absence, you must use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. If your reason for absence is illness you need NOT provide me any supporting documentation. Although I will never require medical documentation, I may require an [absence and verification notice](#) if absences or requested accommodations are extensive. Documentation of other valid excuses (e.g. airline ticket receipt, court receipt, hospital parking receipt, funeral program) must be provided to me (please provide me a copy) for the excuse to be accepted. Excuses that cannot be verified with documentation (e.g. power outage, traffic jam, car trouble, personal issues) will not be accepted as valid. Absences due to religious observance, participation in university-sponsored events or activities such as intercollegiate athletics, or documented chronic illness are treated as authenticated absences.

Make-up Exams. Students with a valid, documented excuse (see above) who are unable to take the exams may take a make-up exam. Except under extremely unusual circumstance, you are expected to notify me of your absence and obtain approval to take the make-up exam in advance of the regularly scheduled exam. If you are sick the day of an exam, please contact me and visit the doctor (just in case you need to get a letter from a Dean). Students without a valid excuse or who miss a departmental make-up exam opportunity may not be permitted to take a make-up exam for full credit.

2. Preparation works (10X2=20 pts)

To ensure that you get the most out of this course, it is important that you come to class prepared and ready to learn. Reading the assigned material each week will help you understand the concepts and prepare for in-class activities.

I will check your preparation for the course through online assignments to be completed before the class, which will include several means, including online reading, prep work, online exercises, and occasional quizzes, to ensure that students come to the class prepared.

3. Homework Assignments (10X2=20 pts)

After each week's class session, I will post an assignment, basically asking you to either do a similar task that was done during the class session or operationalize what we will have discussed. The purpose of this assignment is to encourage independent practice.

Students will be required to submit a total of 12 homework assignments targeted at independent application of the skills learned for in each class session. Instructions for each assignment are provided on Canvas under the assignment submission link. Each assignment will carry a different weight based on the amount of work it requires. The weights of assignment are represented in the Canvas grading scheme, and visible under Canvas assignment link. In total, assignments consist of 36% of the grade. Assignments will be tailored to the needs of the students after each class session. Therefore, they will be made available after the end of the relevant class session. Please look at the Assignments link on Canvas to see the assignment due for the week.

Weekly assignments are going to be due in one week. Late submissions will be accepted for a slightly reduced grade according to the following criteria:

Grade reductions for late submissions.

0.1 pts will be reduced from the available 2 pts for each day the submission is late.

No submissions will be accepted after 2 weeks from the due date, except for verifiable excuses.

For online submissions, the lowest grade from each category (prepwork, in-class work and homework) will be disregarded from grade calculations.

4. Midterm Exam: (10 pts)

There will be an in-class exam that will include multiple choice, true-false and open-ended questions. The examination will focus on basic concepts of statistics. To ensure that you are prepared for the exam, it is important that you come to class regularly and read the relevant materials. In addition, you can use the office hours to ask questions and review the material with me. If you have an officially authenticated excuse, you may be able to re-take the exam. Good luck!

4. Practice Exam: (15 pts)

There will be an in-class practice exam that requires you to solve a series of problems using data analysis techniques.

5. Final Exam: (15 pts)

The final examination for this class is going to be primarily focused on Data Literacy, and to check your ability to “Formulate, evaluate, and communicate conclusions and inferences from quantitative information.” Further details and instructions will be provided on Canvas and in class.

Grade	Range
A	90 – 100
B+	85 – 89
B	80 – 84
C+	75 – 79
C	70 – 74
D	60 – 69
F	Below 60

Week	Date	TOPIC	Reading Material
1	September 2	Introduction to Course – Syllabus - The Use of Statistics in Criminal Justice and Criminology	Syllabus-
2	September 4	Sampling and Data - Levels of Measurement	Chapter - 1
	September 9	Types of Variables and Levels of Measurement	Chapter - 1
3	September 11	Organizing Displaying and Representing Data	Chapter -2.1
	September 16	Organizing Displaying and Presenting Data	Chapter – 2.1
4	September 18	Measures of Central Tendency	Chapter – 2.2
	September 23	Measures of Position	Chapter – 2.4
5	September 25	Measures of Dispersion	Chapter – 2.5
	September 30	Measures of Dispersion - Continued	Chapter – 2.3
6	October 2	##### MIDTERM#####	
	October 7	Probability	Chapter – 3.1 through 3.6
7	October 9	Discrete Probability Distributions	Chapter – 4.1 through 4.5
	October 14	Discrete Probability Distributions	Chapter – 4.1 through 4.5
8	October 16	Continuous Probability Distributions	Chapter – 5.1 through 5.4
	October 21	Central Limit Theorem	Chapter -6
9	October 23	Point Estimates and Confidence Intervals	Chapter -7
	October 28	Hypothesis Testing	Chapter -8
10	October 30	Hypothesis Testing with Categorical Variables- Chi-Square	Chapter -10
	November 4	Hypothesis Testing with Categorical Variables- Chi-Square	Chapter -10
11	November 6	Hypothesis Testing with Two Population Means or Proportions: T-test	Chapter -9
	November 11	Hypothesis Testing with Two Population Means or Proportions: T-test	Chapter -9
12	November 13	#####PRACTICE TEST#####	
	November 18	#####NO CLASS – THANKSGIVING#####	
13	November 20	Hypothesis Testing with Three or more Population Means: T-test	Chapter -11
	November 25	Hypothesis Testing with Three or more Population Means: T-test	Chapter -11
14	December 2	Hypothesis Testing with Two Continuous Variables: T-test CORRELATION	Chapters – 12.1, 12.2, 12.3
	December 4	Simple Linear Regression	Chapters – 12.4, 12.5, 12.6
	12/18/2025 - 04:00PM-07:00PM	#####FINAL EXAM#####	

This schedule is subject to change with prior notice given to the students. Please refer to Canvas for the detailed weekly assignments schedule.

Resources for Students:

The faculty and staff at Rutgers are committed to your success. Students who are successful tend to seek out resources that enable them to excel academically, maintain their health and wellness, prepare for future careers, navigate college life and finances, and connect with the RU community. Resources that can help you succeed and connect with the Rutgers community can be found at success.rutgers.edu, and nearly all services and resources that are typically provided in-person are now available remotely.

Disability Accommodations:

If you have a disability that may impact your ability to fully participate in this course, please contact the appropriate disability services office at your campus to discuss reasonable accommodations. The staff at these offices can help you navigate the process of obtaining documentation and requesting accommodations. They are there to support you and ensure that you have equal access to all course materials and activities. Please don't hesitate to reach out to them for assistance.

“In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation.”

I commit to making course materials accessible to all students. These include captions on all videos, transcripts for audio, alt text on provided images, and providing only documents in searchable formats (not image-scans) with minimal use of color and highlights for emphasis. Please do not hesitate to reach out if any of the course material fall below this standard and impede your learning.

Counseling Services:

It is important to take care of your mental health and wellbeing. Should you consider seeking help from Rutgers Counseling, Alcohol and Other Drug Assistance Program & Psychiatric Services (CAPS), CAPS can provide you with the support you need. CAPS offers a wide range of services, including individual and group counseling, crisis intervention, and workshops. To learn more, please visit their website at <http://rhscaps.rutgers.edu/home-2/>.

Student Support and Mental Wellness

- Student Success Essentials: <https://success.rutgers.edu>
- Student Support Services: <https://www.rutgers.edu/academics/student-support>
- The Learning Centers: <https://rlc.rutgers.edu/>
- Rutgers Libraries: <https://www.libraries.rutgers.edu/>
- Bias Incident Reporting: <https://studentaffairs.rutgers.edu/bias-incident-reporting>
- Dean of Students – Student Support Office: <https://success.rutgers.edu/resource/dean-students-student-support-office>
- Office of Veteran and Military Programs and Services: <https://veterans.rutgers.edu>
- Student Health Services: <http://health.rutgers.edu/>
- Counseling, Alcohol and Other Drug Assistance Program & Psychiatric Services (CAPS): <http://health.rutgers.edu/medical-counseling-services/counseling/>
- **UWill**: free immediate access to teletherapy; you can choose a therapist based on your preferences including issue, gender, language, ethnicity. <http://health.rutgers.edu/uwill/>
- Office for Violence Prevention and Victim Assistance: www.vpva.rutgers.edu/
- Office of Disability Services: <https://ods.rutgers.edu/>
- Basic Needs Assistance (food, housing, and other essentials): <https://ruoffcampus.rutgers.edu/basic-needs>
- Rutgers Student Food Pantry: <https://ruoffcampus.rutgers.edu/food-pantry>

Academic Integrity:

Rutgers University takes academic integrity seriously, and it is important that all students are aware of the university's academic integrity policy. Academic dishonesty, including cheating, plagiarism, and fabrication, can result in serious consequences, including suspension and expulsion. If you have any questions about what constitutes academic dishonesty, please consult your instructor and/

Academic dishonesty includes (but is not limited to):

- Cheating
- Plagiarism
- Aiding others in committing a violation or allowing others to use your work
- Failure to cite sources correctly
- Fabrication
- Using another person's ideas or words without attribution, including re-using a previous assignment
- Unauthorized collaboration
- Sabotaging another student's work

If you are ever in doubt, consult your instructor.

Please review the University's Academic Integrity Policy:
<http://nbacademicintegrity.rutgers.edu/home-2/academic-integrity-policy/>

Technical Support:

In an effort to streamline and simplify technical help for students, the university is consolidating support for Canvas, Sakai, and Blackboard within the Office of Information Technology (OIT). Starting Tuesday, January 12, students should contact the OIT Help Desk for help with Canvas or Sakai. Technical support for Canvas and Sakai is transitioning from Teaching and Learning with Technology (TLT) to OIT.