

**47: 202: 302 Data Analysis in Criminal Justice**

**4 Credits
Fall 2020**

**Online (Asynchronous)**

**Hosted on Blackboard**

1. **Course Information**

**Instructor Information:**

*Instructor*: Dr. Jasmine Silver

*Email*: jasmine.silver@rutgers.edu

*Virtual Office Hours*: Fridays 12 - 2 pm or by appointment

**Course Overview:**

This course examines the various types of data used within criminal justice and the fundamentals of statistics and analysis. It also provides an analysis of the appropriate use of data, the limits of various methods, how data is collected, and how to interpret findings. Policy implications of data will also be discussed.

**Prerequisite:**

21:62:202:301 and the basic undergraduate math requirement.

**B.S., Criminal Justice Program Learning Goals**

Upon completion of the B.S. in Criminal Justice at Rutgers University-Newark, students should be able to:

1. Describe the development and functions of major criminal justice institutions (e.g., police, courts, corrections, and juvenile justice), the activities of actors within these institutions, and how they relate to one another as well as the broader social, political, and economic world.
2. Describe the mechanisms, correlates, theoretical underpinnings, and situational contexts of crime, criminal behavior and opportunity, and techniques for prevention and treatment.
3. Apply and analyze theories related to the policies and practices of the criminal justice system and its major institutions.
4. Demonstrate the ability to gather, explain, and apply empirical research in the field of criminal justice.
5. Obtain a comprehensive knowledge about the process of conducting criminal justice research, and develop the skills to conduct criminal justice research with appropriate methodologies.

**Course Learning Objectives:**

### Define the main characteristics of research designs.

### Distinguish the levels of measurements and types of variables.

### Choose, apply, and correctly interpret summary measures.

### Visualize distributions of continuous and categorical variables.

### Calculate and interpret measures of association.

### Explain the principles of statistical inference.

### Test hypotheses using bivariate analytic techniques.

### Conduct basic statistical analyses by hand and using computer software.

### Required Readings:

Fox, J. A., Levin, J. & Forde, D. R. *Elementary Statistics in Criminal Justice Research (4th Ed.).* New York: Pearson.

Note: this text is **RECOMMENDED** but **OPTIONAL**. Any edition is fine. Or feel free to use a different book or the internet. Additional resources will also be supplied on Blackboard.

**Course Structure:**

# This course will consist of recorded lectures and lecture notes posted to Blackboard. Knowledge of the material will be assessed through weekly problem sets. There will be a voluntary synchronous Q&A and review section each week. Students can also ask for help/ answer questions for extra credit on a discussion board.

# Course Schedule

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| --- | --- | --- |
| Date | Class Topic | Assignments Due (at 11:59pm on the day listed) |
| Week 1 9/1 – 9/6 | Introduction | Sun 9/6: Course Survey |
| Week 2 9/7 (Labor Day)9/8 – 9/13 | Data and variables | Sun 9/13: Problem Set #1 |
| Week 3 9/14 – 9/20 | Organizing and visualizing data | Sun 9/20: Problem Set #2 |
| Week 49/21 – 9/27 | Measures of Central Tendency | Sun 9/27: Problem Set #3 |
| Week 59/28 – 10/4 | Measures of Variability | Sun 10/4: Problem Set #4 |
| Week 610/5 – 10/11 | Probability Probability Distributions | Sun 10/11: Problem Set #5 |
| Week 710/12 – 10/18 | Z-Scores and AUC | Sun 10/18: Problem Set #6 |
| Week 810/19 – 10/25  | SamplingSampling Distributions  | Sun 10/25: Problem Set #7 |
| Week 910/26 – 11/1 | Confidence intervals | Sun 11/1: Problem Set #8 |
| Week 1011/2 – 11/8 | Hypothesis testing | Sun 11/8: Problem Set #9 |
| Week 1111/9 – 11/15 | T-Tests | Sun 11/15: Problem Set #10 |
| Week 1211/16 – 11/22 | ANOVA | Sun 11/22: Problem Set #11 |
| Week 1311/23 – 11/29  | NO CLASS | Thanksgiving! |
| Week 1411/30 – 12/6 | Chi Square TestCorrelations | Sun 12/6: Problem Set #12 |
| Week 1512/7 – 12/10 | Who cares about statistics? | Thurs 12/10: Makeup Problem Set  |

1. **Course Assessment and Grading**

The final grade will be assessed based upon your performance on weekly problem sets. Problem sets may include a variety of components, including conceptual questions, calculations, and applications of the material. You will also be graded on participation in a course survey.

The breakdown for the course is as follows:

**Class Survey**: 10 points

**Problem Sets:** 12 x 20 points each = 240 points

**TOTAL**: 250 points

Note that all problem sets are open-book and open-notes. You may talk to other students about the problem sets, but you should hand in your own work.

You may also complete the **Makeup Problem Set** at the end of the semester to *replace your grade on any one problem set*.

**Extra credit:**

There are two ways to get extra credit in this course:

1. **Find a mistake in the lecture notes.** The first person to point out a mistake in the posted lecture notes will receive 2 points of extra credit toward their final grade.
2. **Answer another student’s question correctly**. The first person to answer another student’s question about the course material correctly in the Q&A board will receive 2 points of extra credit toward their final grade. Please note that the questions and answers must be on topic and I reserve the right to withhold points for off topic answers.

**Grading Scale:**

|  |  |  |
| --- | --- | --- |
| **Grade** | **Percent Score** | **Points** |
| A | 90% - 100% | 224 – 250 points |
| B+ | 87% - 89% | 217 – 223 points |
| B | 80% - 86% | 199 – 216 points |
| C+ | 77% - 79% | 192 – 198 points |
| C | 70% - 76% | 174 – 191 points |
| D | 69% - 60% | 149 – 173 points |
| F | 0% - 50% | 0 – 148 points |

### IV. Course Policies

### Late or Missing Assignment Policy

**Late Work.** Late assignments will be penalized by one letter grade (10%) for each day they are late. The penalty will max out at 5 days, meaning that the most you can lose for late work is 50%.

**Missed Work.** Absences resulting in missed work or exams will be excused for personal or family emergencies. Note that I may ask you to provide documentation.

**Technology**

Your Rutgers email account is the official form of communication for this class and you should check it regularly. You are responsible for all information about the class sent to that email address. Do not use the message or email functions in Blackboard. I will only respond to emails from your Rutgers address. When you send me an email, write your main topic/concern in the subject line, keep emails professional, and sign your name. I will respond within 24 hours (and usually sooner).

If you have **any issues** accessing the online materials for this course, please reach out to me ASAP. Your grade in this course should not depend on the speed of your internet!

It is recommended that you visit: <https://runit.rutgers.edu/technology-launch-pad/>

**Academic Integrity**

As a member of the Rutgers University community you are not to engage in any academic dishonesty. You are responsible for adhering to basic academic standards of honesty and integrity as outlined in the Rutgers University Policy on Academic Integrity for Undergraduate and Graduate Students <http://studentconduct.rutgers.edu/academic-integrity>.

Your academic work should be the result of your own individual effort, you should not allow other students to use your work, and you are required to recognize and reference any material that is not your own. Violations of the university’s policy will result in appropriate action.

**Accommodation and Support Statement**

Rutgers University Newark (RU-N) is committed to the creation of an inclusive and safe learning environment for all students and the University as a whole. RU-N has identified the following resources to further the mission of access and support:

* **For Individuals with Disabilities:** The Office of Disability Services (ODS) is responsible for the determination of appropriate accommodations for students who encounter barriers due to disability. Once a student has completed the ODS process (registration, initial appointment, and submitted documentation) and reasonable accommodations are determined to be necessary and appropriate, a Letter of Accommodation (LOA) will be provided. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at ods.rutgers.edu. Contact ODS at (973)353-5375 or via email at ods@newark.rutgers.edu.
* **For Individuals who are Pregnant**: The Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy. Students may contact the Office of Title IX and ADA Compliance at (973) 353-1906 or via email at TitleIX@newark.rutgers.edu.
* **For Absence Verification:** The Office of the Dean of Students can provide assistance for absences related to religious observance, emergency or unavoidable conflict (illness, personal or family emergency, etc.). Students should refer to University Policy 10.2.7 for information about expectations and responsibilities. The Office of the Dean of Students can be contacted by calling (973) 353-5063 or emailing deanofstudents@newark.rutgers.edu.
* **For Individuals with temporary conditions/injuries:** The Office of the Dean of Students can assist students who are experiencing a temporary condition or injury (broken or sprained limbs, concussions, or recovery from surgery). Students experiencing a temporary condition or injury should submit a request using the following link: <https://temporaryconditions.rutgers.edu>.
* **For English as a Second Language (ESL)**: The Program in American Language Studies (PALS) can support students experiencing difficulty in courses due to English as a second language (ESL) and can be reached by emailing PALS@newark.rutgers.edu to discuss potential supports.
* **For Gender or Sex-Based Discrimination or Harassment:** The Office of Title IX and ADA Compliance can assist students who are experiencing any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking. Students can report an incident to the Office of Title IX and ADA Compliance by calling (973) 353-1906 or emailing TitleIX@newark.rutgers.edu. Incidents may also be reported by using the following link: tinyurl.com/RUNReportingForm. For more information, students should refer to the University’s Student Policy Prohibiting Sexual Harassment, Sexual Violence, Relationship Violence, Stalking and Related Misconduct located at http://compliance.rutgers.edu/title-ix/about-title-ix/title-ix-policies/.
* **For support related to interpersonal violence:** The Office for Violence Prevention and Victim Assistance can provide any student with confidential support. The office is a **confidential resource** and does ***not*** have a reporting obligation to report information to the University’s Title IX Coordinator. Students can contact the office by calling (973) 353-1918 or emailing run.vpva@rutgers.edu. There is also a confidential text-based line available to students; students can text (973) 339-0734 for support.
* **For Crisis and Concerns:** The Campus Awareness Response and Education (CARE) Team works with students in crisis to develop a support plan to address personal situations that might impact their academic performance. Students, faculty and staff may contact the CARE Team by using the following link: tinyurl.com/RUNCARE or emailing careteam@rutgers.edu.
* **For Stress, Worry, or Concerns about Well-being:** The Counseling Center has confidential therapists available to support students. Students should reach out to the Counseling Center to schedule an appointment: counseling@newark.rutgers.edu or (973) 353-5805. If you are not quite ready to make an appointment with a therapist but are interested in self-help, check out *TAO at Rutgers-Newark* for an easy, web-based approach to self-care and support: https://tinyurl.com/RUN-TAO.

For emergencies, call 911 or contact Rutgers University Police Department (RUPD) by calling (973) 353-5111.

**Other Useful Links**

* Writing: <https://myrun.newark.rutgers.edu/writing-center>
* Health: <https://www.newark.rutgers.edu/health-wellness-students>
* Harassment: <https://sexualharassment.rutgers.edu/>
* Financial need:
* Student Code of Conduct: <http://studentconduct.rutgers.edu/student-conduct-processes/university-code-of-student-conduct/>