

**47: 202: 302 Data Analysis in Criminal Justice  
3.0 Credits  
Spring, 2019**

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**Mondays  
6:30 p.m. – 9:30 p.m.**

**I. Course Information**

**Instructor Information:**

Instructor: Quovella Spruill

Email: [qs76@scj.rutgers.edu](mailto:qs76@scj.rutgers.edu) and [gmspruill@gmail.com](mailto:gmspruill@gmail.com) (Please email both simultaneously.)

Office Hours: By Appointment Only (email to arrange an appointment)

**Course Overview:**

This course examines the various types of data used within criminal justice and the fundamentals of statistics and analysis. 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.

**Learning Objectives:**

1. Define the main characteristics of research designs.
2. Distinguish the levels of measurements and types of variables.
3. Choose, apply, and correctly interpret summary measures.
4. Visualize distributions of continuous and categorical variables.
5. Calculate and interpret measures of association.
6. Explain the principles of statistical inference.
7. Test hypotheses using bivariate analytic techniques.
8. Conduct basic statistical analyses by hand and using computer software.

**Required Readings:**

Required Textbook:

Statistics for Criminology and Criminal Justice

Ronet D. Bachman, Raymond Paternoster

ISBN: 9781506326108

Publisher: SAGE Publications

Publication Date:02/16/2016

The book will be available at the Rutgers Bookstore.

**\*Additional required readings will be distributed during class sessions throughout the course.**

**Additional Course Requirements:**

1. Students are required to have a scientific calculator with basic scientific keys and functions, i.e. Texas Instruments TI-30X or similar is appropriate. **Cellphone or tablet calculators cannot be utilized during quizzes or exams.**
2. Paper and pencil. A laptop or tablet cannot be used.

Students are required to read assigned readings, attend class and participate in classroom discussions in a manner that reflects familiarity with the readings and previous class sessions. Students are required to access the course website (Blackboard) regularly to stay informed about any changes in lecture topics, assigned readings and other course announcements.

Blackboard: The syllabus, outside readings, and grades will be posted via Blackboard. To access this website, please go to:

- <http://blackboard.newark.rutgers.edu/>
- go to “login here”
- enter your Rutgers NetID and password (Pegasus account info)
- your courses should be listed on the right side of the screen
- select course name

**Please update your email information so that you have access to Blackboard. All class updates will be posted onto Blackboard.**

**Course Structure:**

Course content will be a mixture of traditional lectures, class discussions, guest speakers, video presentations, and on-site visits. Additionally, there will be several in-class activities, exercises and assignments.

**II. Course Schedule\*\***

Date	Class Topic	Readings & Assignments Due
Week 1 Jan 28	Course Overview Basic Math Pretest & Review of Basic Math	Course Syllabus and Handouts
Week 2 Feb 4	Purpose of Statistics in the Criminological Sciences Quiz 1	Read Chapter 1
Week 3 Feb 11	Levels of Measurement	Read Chapter 2
Week 4 Feb 18	Understanding Data Distributions: Tabular and Graphical Techniques Quiz Review	Read Chapter 3
Week 5 Feb 25	Measures of Central Tendency Quiz 2	Read Chapter 4
Week 6 March 4	Measures of Dispersion	Read Chapter 5

<b>Week 7</b> <b>March 11</b>	<b>Probability &amp; Hypothesis Testing</b> <b>Quiz Review</b>	Read Chapter 6
<b>March 18</b>	<b>SPRING BREAK</b>	<b>NO CLASS</b>
<b>Week 8</b> <b>March 25</b>	<b>Point Estimation and Confidence</b> <b>Intervals</b> <b>Quiz 3</b>	Read Chapter 7
<b>Week 9</b> <b>Apr 1</b>	<b>Population Mean and Proportion</b>	Read Chapter 8
<b>Week 10</b> <b>Apr 8</b>	<b>Testing Hypothesis with Categorical Data</b>	Read Chapter 9
<b>Week 11</b> <b>Apr 15</b>	<b>Hypothesis Testing Involving Means or</b> <b>Proportion</b> <b>Quiz Review</b>	Read Chapter 10
<b>Week 12</b> <b>Apr 22</b>	<b>Hypothesis Testing Involving Means or</b> <b>Proportion</b> <b>Quiz 4</b>	Read Chapter 11
<b>Week 13</b> <b>Apr 29</b>	<b>Correlation and Regression</b>	Read Chapter 12-13
<b>Week 14</b> <b>May 6</b>	<b>Correlation and Regression</b>	Read Chapter 12-13
<b>Week 15</b> <b>May 13</b>	<b>FINAL EXAM</b>	

**\*\*This schedule is tentative in nature and is subject to change at the discretion of the instructor. Students will be notified of schedule changes via Blackboard and in class.**

### III. Grading

The final grade will be assessed based upon performance on the following:

• Attendance and Class Participation	15%
• Homework Assignments	20%
• Quizzes (4) (10% each)	40%
• Final Exam	25%
<b>TOTAL</b>	<b>100%</b>

#### **ATTENDANCE & PARTICIPATION: (15%)**

Attendance is mandatory and crucial to your success in this course. If you miss class, it is your responsibility to identify missed content (including handouts, schedules, etc) and turn in assignments. **If you are 15 (or more) minutes late for class, you will receive reduced or no credit for attendance.**

Students are expected to actively participate in the class. Students are required to be prepared to participate by reading all assigned readings and completing homework assignments. This is a criminal justice course, which may involve controversial topics during discussions. All students should always be respectful of their classmates' opinions.

#### **HOMEWORK ASSIGNMENTS (20%)**

The weekly homework assignments will consist of material covered in the most recent classes.

#### **QUIZZES: (4 - 10% each)**

The exams will consist of material covered in the most recent classes. The quizzes are open-book/open-notebook. Laptops, printed PowerPoint slides and handouts CANNOT be used. Instructor will advise which applicable print outs can be used.

**Each student must bring their calculator for the quizzes and exam. You will not be allowed to share calculators or use your cellphone cannot be used.**

#### **FINAL EXAM: (25%)**

The final exam will consist of a comprehensive examination of the material provided throughout the course.

The following grading scale will be used for this course:

A	90–100%
B+	85-89%
B	80-84%
C+	75-79%
C	70-74%
D	60-69%
F	<60%

### **Late or Missing Assignment Policy:**

All assignments are due on the scheduled dates. **Late assignments will not be accepted.**

## **IV. Course Policies**

### **Classroom Rules**

All members of this class are required to conduct themselves in an appropriate and professional manner. Laptops are permitted only if disengaged from the internet and other electronic devices should be stored away unless you specifically seek the instructor's permission. In this class, we may have discussions that challenge our taken for granted assumptions about crime and justice. Students should be prepared to engage honestly and openly about this material and perhaps even examine their own beliefs about the issues. While I am hopeful that the course materials will spark interesting discussion, personal insults or other types of demeaning, disrespectful, or threatening comments toward other class members about their experiences, backgrounds, or statements will NOT be tolerated.

### **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.

### **Academic Resources**

#### **Students with Disabilities**

Rutgers University is committed to providing equal educational opportunity for persons with disabilities in accordance with the Nondiscrimination Policy of the University and in compliance with § 504 of the Rehabilitation Act of 1973 and with Title II of the Americans with Disabilities Act of 1990. For additional information please visit the website <https://ods.rutgers.edu/> or contact the representative for the Newark Campus.

Allen Sheffield  
Director of ADA Services and Academic Support  
Robeson Campus Center, Suite 352  
350 Martin Luther King Jr. Boulevard  
Newark, NJ 07102  
Phone: 973.353.5300  
Fax: 973.353.5666  
E-mail: [kate.torres@rutgers.edu](mailto:kate.torres@rutgers.edu)  
Website: <https://ods.rutgers.edu/>

### Psychological and Counseling Services

If you experience psychological or other difficulties as a result of this course, or because of other issues that may interfere with your performance in the course, please contact the university's psychological and counseling service center (<http://www.counseling.newark.rutgers.edu>; 973-353-5805), which is located in Blumenthal Hall, room 101. The center offers a variety of free, confidential services to part-time and full-time students who are enrolled at Rutgers.

If you are interested in finding out more about

- Accelerated Master's Program (B.S./M.A.)
- Criminal Justice National Honor Society (Alpha Phi Sigma)

Please refer to the School of Criminal Justice website <http://rscj.newark.rutgers.edu/>

Follow us, to stay up to date! @SCJ apps

