


RUTGERS School of Criminal Justice

47: 202: 302 – Data Analysis in Criminal Justice
3 Credits
Fall 2018

Day(s) Tuesday and Thursday

Time(s) 6:00 PM- 7:20 PM

Bradley 312

I. Course Information

Instructor Information:

Instructor: *Marina K.Saad*
Office Hours: *By appointment only.*

Email: mhenein@scarletmail.rutgers.edu

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.

Course 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.

Required Readings:

Textbook: Elementary Statistics in Social Research
by Jack Levin, James Alan Fox, & David R. Forde

- Publisher: Pearson
- Print ISBN: 9780134427768, 0134427769
- eText ISBN: 9780134427744, 0134427742
- Edition: **UPDATED** 12th

Additional Course Requirements:

1. A **scientific calculator** with basic scientific keys and functions: You won't need anything too fancy—a model such as Texas Instruments' TI-30Xa which you can buy from Amazon or Staples for under \$10, will be sufficient for this course. You are expected to bring your calculator to every class session. A phone calculator will not be acceptable for use in this course and may not be used on exams.
2. **Paper and pencil (or pen):** Laptops are not allowed in this course and as such you must bring paper and a writing utensil.

Course Structure:

The course will incorporate diverse learning activities including lectures, PowerPoint presentations, and group work.

II. Course Schedule

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.

Week	Date	Class Topic/Activity	Assigned Reading for Class
1	Sept. 4	Course Introduction Introduction to Statistics in Criminal Justice Basic Math Pretest	Chapter 1
	Sept. 6	Review of Basic Math Types of Variables and Levels of Measurement	Chapter 1, continued
2	Sept. 11	Organizing, Displaying, and Presenting Data	Chapter 2
	Sept. 13	Organizing, Displaying, and Presenting Data, <i>continued</i>	Chapter 2
3	Sept. 18	Measures of Central Tendency	Chapter 3
	Sept. 20	Measures of Variability	Chapter 4
4	Sept. 25	Exam Review	Come to class with questions
	Sept. 27	Exam 1	-
5	Oct. 2	Probability and the Normal Curve	Chapter 5
	Oct. 4	Probability and the Normal Curve, <i>continued</i>	Chapter 5, continued
6	Oct. 9	Samples and Populations	Chapter 6
	Oct. 11	Samples and Populations, <i>continued</i>	Chapter 6
7	Oct. 16	An Introduction to Hypothesis Testing	Reading Assignment on Blackboard
	Oct. 18	Exam Review	Come to class with Questions
8	Oct. 23	Exam 2	-
	Oct. 25	T-Tests	Chapter 7 Pg. 125- 136
9	Oct. 30	Application: T-Tests, <i>continued</i>	Assignment on Blackboard
	Nov. 1	Analysis of Variance (ANOVA)	Chapter 8
10	Nov. 6	Application: ANOVA, <i>continued</i>	Assignment on Blackboard
	Nov. 8	Exam Review	Come to class with questions!

11	Nov. 13	Exam 3	
	Nov. 15	NO CLASS ASC ANNUAL CONFERENCE	
12	Nov. 20	No CLASS ASC ANNUAL CONFERENCE	
	Nov. 22	NO CLASS THANKSGIVING BREAK	
13	Nov. 27	Chi-Square	Chapter 9
	Nov. 29	Correlation	Chapter 10
14	Dec. 4	Application: Chi-Square and Correlations	Assignment on Blackboard
	Dec. 6	Exam Review	Come to class with questions!
15	Dec. 11	Exam 4	

III. Course Assessment and Grading

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

Assignments: Students are expected to read and study assigned course materials by the completed class dates above. The instructor may also post supplementary articles and assignments on Blackboard as needed. You are responsible for regularly checking Blackboard for updates, announcements, and changes to the course schedule.

- **Recommended homework problems will be posted on Blackboard along with every lecture!** Therefore you must check Blackboard regularly to gain access to PowerPoints and homework problems.

Exams: Your grade will be based on four exams. Each exam will count toward 20% of your final grade. Exams will be based on a combination of the course lectures, in class assignments, and recommended homework problems. Students are responsible for all of the material covered in each session of this course. Thus, it is imperative to complete all assigned readings and take complete notes during lectures, as students will not be able to do well in this course without doing so. Exams will not be cumulative as concepts in statistics build on each other.

- The exams are **OPEN NOTEBOOK (not open text-book)** and will cover only new material from lectures, readings, and recommended homework. Laptops and printed PowerPoint slides and handouts CAN NOT be use on exams.
 - Only print outs of tables from the back of the book may be used when provided by the professor.

- **You must bring your calculator on exam days! You will not be allowed to use phone calculators during exams and you will not be allowed to share/exchange calculators under any circumstances!!!**

Late or Missing Assignment and Exam Policy:

Unless a student has a documented emergency (e.g., a medical emergency), make-up exams will not be offered and will result in a zero. Eligibility for make-ups will only be considered in extreme circumstances and at the discretion of the instructor. If you are absent the day of an exam, you must notify the instructor within than 24 hours to schedule a make-up. Failure to do so will result in forfeiting your opportunity to make up the exam.

ATTENDANCE and PARTICIPATION (20%): Classroom participation will constitute 20% of your grade. Your participation grade is based on your commitment, preparedness, level of engagement, respect for the classroom environment, timeliness, and attendance throughout the semester.

- **BEING PREPARED MEANS BRINGING YOUR BOOK TO CLASS.** We will be referring to the text a lot in class and you must bring your book in order to effectively understand concepts and participate in class.

To facilitate participation and generate more interesting discussions, students are expected to complete the assigned readings and assignments prior to the class in which the topics are to be discussed. In statistics, each new topic builds on the previous one and as such you are expected to attend every class, arrive on time, remain the entire class period, come prepared, and be constructively and respectfully engaged while you are here.

You are allowed two “no questions asked” absences. However, if an emergency arises, and you must miss a class, it is your responsibility to notify the instructor in advance to ensure you are not penalized for the session. After your two “no questions asked” absences, unexcused absences will result in a zero for the session.

Class participation will be graded during every single class session. Grades are based on a scale of 0-3 points per session, according to the following criteria:

- 3 points (100%) = arrived to class on time, provided thoughtful contributions, and demonstrated exceptional engagement throughout the class period.
- 2 points (80%) = arrived late but contributed to the class.
- 1 point (50%) = arrived late to class and did not contribute to the class
- 0 (0%) = Did not attend class OR was in class but appeared disengaged (i.e., working on other assignments, using cell phone, laptop use, talking to classmates).

Attendance and participation grades will be posted on Blackboard approximately one week prior to the end of each section (e.g. prior to the first exam is section 1, between the first and second exam is section 2, etc.) Students are urged to constantly monitor participation grades and address any questions they have about their participation with the professor as soon as

possible. Students may dispute participation grades until the exam for the section is administered. Students may not dispute participation grades for past sections. Participation grades can not be changed after the fourth exam is administered.

Please note: Arriving to class late or leaving early without notifying the instructor will automatically result in a one point deduction from the day's participation score as both are distracting to others and you may miss important information that is covered at the beginning or end of class.

Grade Distribution:

Exam 1	20%
Exam 2	20%
Exam 3	20%
Exam 4	20 %
<u>Attendance and Participation</u>	<u>20%</u>
Total	100%

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%

IV. Course Policies

Classroom Conduct: It is the intent of the instructor to establish a class environment that is conducive to the exchange of ideas in a mutually respectful manner. Disrespectful students will be asked to leave.

NO LAPTOP USE OR CELL PHONE USE DURING CLASS TIME as it distracts the professor and students.

Extra Credit: There may be opportunities for students to earn extra credit points towards their final grade. Students will be notified of any extra credit opportunities throughout the semester. Individuals will not be awarded extra credit if it is not offered to the class as a whole (so please do not ask, the answer is no!)

Grade Progress: If students have questions or concerns about their performance in this course, they are to e-mail the instructor and set up an appointment.

Correspondence with Professor

Students are expected to be professional when writing an e-mail to the professor. This means that e-mails should be written with a proper greeting, include grammatically correct sentences, and include a closing. The following example format is highly recommended: E-mails to the professor should be similar to the example below. If an e-mail is written informally (example: as if you were sending the professor a text message), the professor will **NOT** respond to your e-mail.

Professor S,

I am in your Research Methods class. I am writing about the exam on Tuesday. I unfortunately was injured in a car accident and require emergency surgery. I am respectfully requesting a make-up exam. You may contact my doctor at (555) 100-3000 should you require proof of injury. I can be reached at student.name@rutgers.edu should you have any further questions.

Thank you,

Student S

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
 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/>

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