I. Course Information

Instructor Information:

Instructor: Dr. Lloyd Klein
Email: lloyd.klein@rutgers.edu
Office Hours: By Appointment Only

Course Description:

47:202:302 Data Analysis in Criminal Justice (4 credits)
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.

Learning Objectives:

Course Learning Goals:

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 Text:**


**Course Requirements:**

Students are required to read assigned chapters and participate in classroom discussions in a manner that reflects familiarity with the readings and previous class sessions. The course is cumulative and students must remain current with course materials.

**Course Structure:**

Course content will be a mixture of traditional lectures and class discussions. Additionally, there will be applied in-class activities related to SPSS, course related exercises, assignments, quizzes and three examinations administered throughout the semester.

**II. Course Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Class Topic</th>
<th>Readings &amp; Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week</td>
<td>Dates</td>
<td>Topic</td>
</tr>
<tr>
<td>-------</td>
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<td>-------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>1/17, 1/19</td>
<td><strong>Course Introduction</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Organizing the Data</strong></td>
</tr>
<tr>
<td>2</td>
<td>1/24, 1/26</td>
<td><strong>Measures of Central Tendency</strong></td>
</tr>
<tr>
<td>3</td>
<td>1/31, 2/2</td>
<td><strong>Measures of Variability</strong></td>
</tr>
<tr>
<td>4</td>
<td>2/7, 2/9</td>
<td><strong>Probability and the Normal Curve</strong></td>
</tr>
<tr>
<td>5</td>
<td>2/14, 2/16</td>
<td><strong>Samples and Populations</strong></td>
</tr>
<tr>
<td>6</td>
<td>2/21, 2/23</td>
<td><strong>Testing Differences between Means</strong></td>
</tr>
<tr>
<td>7</td>
<td>2/28, 3/2</td>
<td><strong>Analysis of Variance (ANOVA)</strong></td>
</tr>
<tr>
<td>8</td>
<td>3/7, 3/9</td>
<td><strong>Spring Break, No Classes</strong></td>
</tr>
<tr>
<td>9</td>
<td>3/14, 3/16</td>
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</tbody>
</table>

*Note: The course schedule includes assignments and quizzes as indicated.*
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Text Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Nonparametric Tests of Significance</td>
<td>Fox, et. al, Chapter Nine</td>
</tr>
<tr>
<td></td>
<td>Quiz Three (3/23)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Correlation</td>
<td>Fox, et. al, Chapter Ten</td>
</tr>
<tr>
<td></td>
<td>Examination Two</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Correlation</td>
<td>Fox, et. al, Chapter Ten</td>
</tr>
<tr>
<td>13</td>
<td>Regression</td>
<td>Fox, et. al, Chapter Eleven</td>
</tr>
<tr>
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<td>Quiz Four (4/13)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Regression</td>
<td>Fox, et.al, Chapter Eleven</td>
</tr>
<tr>
<td></td>
<td>Assignment Four: Correlation and Regression</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Nonparametric Measures of Correlation</td>
<td>Fox, et. al., Chapter Twelve, Thirteen</td>
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### 111. Grading

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

A total of 400 points can be earned for the semester. Extra credit may be granted under specified circumstances. Final grades will be assigned as follows:

- **A**: 360-400 points
- **B**: 320-359 points
- **C**: 280-319 points
- **D**: 240-279 points
- **F**: 0-239 points

- Examination #1: 100 points
- Examination #2: 100 points
Examination #3: 100 points
Quizzes: 60 points (15 points per quiz)
Assignments 40 points (10 points per essay)

**Assignments 1 through 4 (10%)**:
Each assignment will focus on a particular significant statistical measure emphasized in the course. Focus will be placed on the utilization of SPSS, interpretation of results, and the meaning of the results in term of an applicable research hypothesis (hypothesis testing). Each paper should be approximately 3-5 pages (not including the appendix for SPSS printout), double-spaced, Times-Roman font. Late papers will not be accepted as all paper must be submitted as In-class hard copy. No assignments accepted after the announced due date.

**Assignment One (10 points: Due 2/21):**
Central tendency and Variability

**Assignment Two (10 points: Due 2/28):**
Probability and sample/populations

**Assignment 3 (10 points: Due 3/21):**
Analysis of Variance

**Assignment 4 (10 point: Due 4/11):**
Correlation and Regression

**Assignment 5 (100 points-25%)**: The first exam will be graded on a 100-point scale.

**Assignment 6 (100 points-25%)**: The second exam will be graded on a 100-point scale.

**Assignment 7 (100 point-25%)**: The third exam will be graded on a 100-point scale.

**Assignment 8-11 (60 points-15%)**: Four quizzes, each graded on a 15-point scale.

**ATTENDANCE**

- Attendance:

  Attendance is mandatory and will be taken and recorded following every class. Students
cannot excel in this class without regular attendance and participation in classroom lecture/discussion and completion of in-class and assigned exercises.

**Late or Missing Assignment Policy:**

Assignments must be submitted on time. There will be no exceptions.

**IV. Course Policies**

**Classroom Rules**

Students are reminded that classroom decorum must be maintained at all times. Classroom discussion is an integral portion of this course. Collegial discussion, rather than verbally attacking students or professional staff, is considered the norm rather than the exception. **There is absolutely no text messaging during class. No laptops, no notebooks or netbooks are allowed in class without certification from the Director of ADA Services.** Cell phone use will not be allowed in class at any time. **No cell phones will be allowed on desks during the administration of any quizzes or examinations.** Please do not bring food, gum, or other consumables into the class. Students are subject to and will receive reduced grades leaving the classroom for the purpose of hanging out in the hall, texting, or making telephone calls. Unruly and disruptive behavior may be subject disciplinary action. Students who interrupt the educational process will be subject to sanctions from Rutgers University.

**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](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.

Kate Torres
Coordinator 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/