UNT Department of Public Administration  
PADM 5500. Administrative Research Methods 1  
Spring 2021  

Tuesday 6:00 - 8:50 PM

**CANVAS**  
Remotely

**Instructor:** Simon A. Andrew, PhD  
**Office location:** Chilton Hall 204A  
**Office Hours:** Tuesday 3:30-5:30 PM (or by Appointment)  
**Phone:** 940-565-4982  
**Email:** sandrew@unt.edu  
**Teaching Assistant:** Younghwan Jeon  
**Email:** martino0926@gmail.com

“We are living through an unprecedented global event the likes of which we have rarely seen in the 130-year history of our university. The personal impact on each of us and our normal routine on and off campus is great …. For students who still need answers regarding our transition to online instruction, including such topics as the availability of laptops and textbooks, please visit our frequently asked questions page on the healthalerts.unt.edu website.” Neal Smatresk, UNT President

**COURSE DESCRIPTION**  
Introduction to methods and techniques of applied research and statistical analysis. Topics include probability, descriptive statistics, estimation, hypothesis testing, contingency table analysis, regression analysis.

**STUDENT LEARNING OBJECTIVES:**
- Students will demonstrate the concepts and application of the logic of social science evaluation that relies upon the collection and measurement of data. This entails the accurate description of data characteristics and potential associations between variables.
- Students will use statistical techniques to test variable associations and interpret those relationships using difference of means and cross tabulations.
- Students will demonstrate how to be an educated and intelligent consumer of statistical analysis results and process.
**COURSE MATERIALS:**
Required Text**

**Note that a student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**SPSS / IBM:**
The UNT released **UIT Virtual Statistics Lab**: [https://it.unt.edu/virtual-lab/](https://it.unt.edu/virtual-lab/) (Links to an external site). The lab provides access to all the statistics software for which UNT maintains licenses without the need the install those applications on their local computer. Bring your laptop to class with the SPSS software installed so that we can go through the exercise in-class together.

**STUDENT PERCEPTIONS OF TEACHING (SPOT)**
Students are strongly encouraged to complete the Student Perception of Teaching (SPOT) survey. This short survey will be made available on-line at the end of the semester.

**POLICY ON DISABILITY ACCOMMODATION**
Students with disabilities needing academic accommodation should (1) register with and provide documentation to the Office of Disability Accommodation (ODA); and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during office hours before the 12th class day of regular semesters.

**ACCEPTABLE STUDENT BEHAVIOR**
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university’s expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at [www.unt.edu/csrr](http://www.unt.edu/csrr).

**WITHDRAWALS**
Students may withdraw from the course, but you must follow university procedures. The instructor is not responsible for failure to meet withdrawal deadlines.

**POLICY ON CHEATING AND PLAGIARISM**
Definitions: The UNT Code of Student Conduct and Discipline defines cheating and plagiarism “as the use of unauthorized books, notes, or otherwise securing help in a test; copying other’s tests, assignments, reports, or term papers; representing the work of another as one’s own; collaborating without authority with another student during an
examination or in preparing academic work; or otherwise practicing scholastic dishonesty.”

Penalties: Normally, the minimum penalty for cheating or plagiarism is a grade of “F” in the course. In the case of graduate departmental exams, the minimum penalty shall be failure of all fields of the exam. Determination of cheating or plagiarism shall be made by the instructor in the course, or by the departmental faculty in the case of departmental exams.

Cases of cheating or plagiarism on graduate departmental exams, papers, theses, or dissertations shall automatically be referred to the departmental Curriculum and Degree Programs Committee. Cases of cheating or plagiarism in ordinary course work may, at the discretion of the instructor, be referred to the Curriculum and Degree Programs Committee in the case of either graduate or undergraduate students. This committee, acting as an agent of the Department, shall impose further penalties, or recommend further penalties to the Dean of Students, if they determine that the case warrants it. In all cases, the Dean of Students shall be informed in writing of the case.

Appeals: Students may appeal and decision under this policy by following the procedure laid down in the UNT Code of Student Conduct and Discipline.

ACADEMIC ETHICS

The issue of academic ethics can be a problem and thus any instance of cheating, plagiarism, falsification, or failure to do original work for this course can result in one or more of the following consequences.

• Failing grade for Homework I and II, assignments, final project, or final exam
• Failing course grade
• Recommendation for additional disciplinary action
• Removal from the MPA program or University

COURSE SYLLABUS:

The following schedule indicates our plan for the semester. The instructor may and likely will change the plan to facilitate course objectives. Students are responsible for any changes made to the syllabus. Students are also expected to read the material before logging onto CANVAS so they can be prepared to discuss the material.
<table>
<thead>
<tr>
<th>Date/Week</th>
<th>Course Outline</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>Week 1</strong> Jan. 12</td>
<td><strong>Introduction</strong>&lt;br&gt;<strong>Going through Course Syllabus</strong>&lt;br&gt;<strong>Lecture 1: Introduction to Statistics and Research Design</strong></td>
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<td><strong>Week 2</strong> Jan. 19</td>
<td><strong>Housekeeping</strong>&lt;br&gt;<strong>Going through key points of previous lecture</strong>&lt;br&gt;<strong>Overview of this week lecture</strong>&lt;br&gt;<strong>Lecture 2: Research Design (Chapter 3)</strong></td>
<td><strong>Distribute Homework 1</strong></td>
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<td><strong>Week 3</strong> Jan. 26</td>
<td><strong>Housekeeping</strong>&lt;br&gt;<strong>Going through key points of previous lecture</strong>&lt;br&gt;<strong>Overview of this week lecture</strong>&lt;br&gt;<strong>Lecture 3: Measurements (Chapter 2)</strong>&lt;br&gt;<strong>UNT Virtual Lab and how you can access SPSS</strong></td>
<td><strong>Group Selection</strong></td>
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<td><strong>Week 4</strong> Feb. 2</td>
<td><strong>Housekeeping</strong>&lt;br&gt;<strong>Going through key points of previous lecture</strong>&lt;br&gt;<strong>Overview of this week lecture</strong>&lt;br&gt;<strong>Lecture 4: Descriptive Statistics (Chapters 4, 5, &amp; 6)</strong>&lt;br&gt;<strong>Large Data Set – Child Labor in the Philippines</strong>&lt;br&gt;<strong>Final Project Explanation</strong></td>
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<td><strong>Week 5</strong> Feb. 9</td>
<td><strong>Housekeeping</strong>&lt;br&gt;<strong>Going through key points of previous lecture</strong>&lt;br&gt;<strong>Overview of this week lecture</strong>&lt;br&gt;<strong><strong>Lecture 5: Introduction to Probability (Chapters 7, 8, &amp; 9)</strong></strong></td>
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<td><strong>Week 6</strong> Feb. 16</td>
<td><strong>University of North Texas Closed – Extreme Weather</strong></td>
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<td><strong>Week 7</strong> Feb. 23</td>
<td><strong>Housekeeping</strong>&lt;br&gt;<strong>Going through key points of previous lecture</strong>&lt;br&gt;<strong>Overview of this week lecture</strong>&lt;br&gt;<strong><strong>Lecture 6: Inference Statistics – Confidence Interval (Chapters 11, 12, &amp; 13)</strong></strong>&lt;br&gt;<strong><strong>Lecture 7: Inference Statistics – Hypothesis Testing (Chapter 12)</strong></strong></td>
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<td><strong>Week 8</strong> Mar. 2</td>
<td><strong>Housekeeping</strong>&lt;br&gt;<strong>Going through key points of previous lecture</strong>&lt;br&gt;<strong>Overview of this week lecture</strong>&lt;br&gt;<strong>Workshop 1: Data Visualization and Analysis</strong></td>
<td><strong>Homework 1 due (Friday)</strong></td>
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<td>Week 9</td>
<td>Mar. 9</td>
<td>Housekeeping</td>
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<td>***Lecture 8: Inference Statistics - Testing Difference Between 2 Groups (Chapter 14)</td>
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<td>Week 10</td>
<td>Mar. 16</td>
<td>Housekeeping</td>
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<td>***Lecture 9: An Overview of Cross-Tabulation. What is Contingency Table? / How to Develop a Contingency Table? (Chapters 15 &amp; 17)</td>
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<td>Week 11</td>
<td>Mar. 23</td>
<td>Housekeeping</td>
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<td>***Lecture 10: Chi-Square Analysis / How to Perform a Chi-Square Analysis using SPSS? (Chapter 16)</td>
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<td>Week 12</td>
<td>Mar. 30</td>
<td>Housekeeping</td>
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<td>Lecture 11: Introduction to Bivariate Analysis and Correlation</td>
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<td>Week 13</td>
<td>Apr. 6</td>
<td>Going through key points of previous lectures</td>
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<td>Week 14</td>
<td>Apr. 13</td>
<td>***Final Examination ---Tuesday 6:00PM to 9:00PM</td>
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<td>Week 15</td>
<td>Apr. 20</td>
<td>Group Presentations</td>
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<td>Week 16</td>
<td>Apr. 27</td>
<td>Final Project Due</td>
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COURSE EVALUATION AND GRADES:

Homework 1: 25%
Homework 2: 25%
Final Exam: 30%
Final Group Project: 15%
Group Presentation: 5%

Grades Breakdown
A = 100–90%  B = 89–80%  C = 79–70%  D = 69–60%  F = 59% below

Homework 1 & 2 (Total 50%): You will answer a list of questions related to statistical concepts and problems.

Final Exam (Total 30%): Your final exam will consist of materials we covered in lecture 1 to lecture 9. You will receive the exam questions on the date of the exam, July 13 at 1PM. Your exam ends at 4:50PM. You should submit your Final Exam in CANVAS as DOCX file.

Final Group Project (Total: 15%): Based on the Report and Dataset---“Tracer study in the Philippines: Measuring longer term impact on children and families of interventions against child labour” --- The final proposal submitted should not exceed 5 pages (excluding tables and figures bibliography and appendices). The final draft of your proposal should be typed with single line spacing, 12-point font, and standard one inch margins.

Your group project must explain the main problems your group is planning to examine. In other words, based on the Report on Child labor in the Philippines, what is your research objective/question? Why your group is interested to examine this particular research objective/question (please conduct a literature search online)? What is/are the hypotheses? Discuss the hypotheses, e.g., what evidence must you provide about the relationship to prove that it is causal?

Based on your research objectives and hypotheses, you must pick the dependent and independent variables and construct two or three Contingency tables. Explain your dependent and independent variables. How have you measured or captured the variables from the questionnaires? Are they reliable or valid? If so, how? Each variable should be explained in a paragraph each. In your analysis of the contingency tables, you must present your Contingency tables. You must also tell your story visually using figures or tables. Briefly explain if the patterns in the Contingency tables answer your research questions.

When conducting your analysis, explain the various steps you have taken when conducting a Chi-square analysis? In other words, what were the steps you did to perform the analysis. Perform a Chi-square analysis to test your hypotheses. Present your findings. Discuss and provide a substantive interpretation of your findings.

Your write-up should be structured as follows:
1. Introduction
   1.1 Objective/Research Question
       1.2 Importance of the Study
       1.3 Hypotheses
2. Research Design
   2.1 Concepts and Variables
   2.2 Reliability and Validity of Measurements
3. Data Analysis
   3.1 Contingency Tables
   3.2 Chi-square Analysis
4. Major Findings and Discussions
5. Conclusion

**Group Presentation (Total: 5%)**: Your group will present your group project on CANVAS during the Zoom Class. Your presentation will take 15-20 minutes.