SOCI 3280.900: Quantitative Data Analysis – Spring 2023

Course Instructor and Contact Information

Instructor: Dr. Cynthia M. Cready, Associate Professor of Sociology.

Instructor's Campus Office Location: 288F Sycamore Hall, Department of Sociology, College of Liberal Arts and Social Sciences, University of North Texas (UNT), Denton

Instructor's Office Hours: Mondays, 2:00PM-3:00PM, or by appointment.

Instructor's Email: Use the Inbox button in the Canvas Learning Management System (Canvas) to email me. When you send your message, it will go to the my UNT email address. The Inbox button (represented by the "box with sheet of paper sticking up out of it" icon) is located on the left side of your computer screen after logon to Canvas. I will make every effort to respond to your message within 24 hours.

Class Meeting Venue and Schedule

The course is delivered entirely online via the Canvas Learning Management System (Canvas). Every Monday at 8:00AM, the week's lesson and its associated post, assignment, and quiz (detailed in the "Course Requirements" section below) will be released. The post, assignment, and quiz will be due six days later on the Sunday after their release at 11:59PM.

Course Prerequisite

You must have passed SOCI 3220 Quantitative Data Collection or equivalent with a "C" before enrolling in this course.

Course Description

This course is an introduction to descriptive and inferential statistics used in analyses of data in the social sciences. This course has an applied focus. As described in UNT's Catalog, the course covers the "role of quantitative methods in social research; application of quantitative techniques and procedures to social data; statistical inference; data processing."

After completing the course, you should be able to:

- Choose the appropriate statistics for a given research question;
- Calculate some of these statistics;
- Interpret the statistics calculated by yourself or generated using SPSS (a popular statistical software package);
- Critically read and interpret published data analyses.

This course fulfills the College of Liberal Arts and Social Sciences requirement for Communication and Digital Skills. At the end of this course, you should be able to demonstrate effective communication using a digital

technological platform and do at least two of the following:

1. Demonstrate the ability to communicate a central idea effectively using appropriate organization/structure.
2. Demonstrate the ability to develop content at an advanced level using a combination of effective supporting material.
3. Demonstrate the ability to engage in verbal and nonverbal communication behaviors that are appropriate for the audience and adhere to the conventions of the medium selected (written, oral, or visual).

Required Materials

Textbook
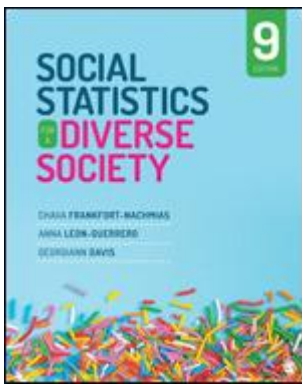
Frankfort-Nachmias, C., Leon-Guerrero, A., & Davis, G. (2020). *Social statistics for a diverse society* (9th ed.). Thousand Oaks, CA: Sage. ISBN 978-1-5443-3973-3 [Hereafter referenced as SSDS.]

Calculator

You will need a simple calculator with a square root key.

Packages of Colored Candies

For several of the lessons, you will need (unopened) personal-sized packages of colored candies (e.g., M&M's®, Skittles®).

Course Technology and Skills

Computer Skills & Digital Literacy

As mentioned earlier, this course has digital components. To fully participate in this class, students will need internet access to reference content on the Canvas Learning Management System (Canvas). If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at Learn Anywhere.

Course-specific technical skills learners must have to succeed in the course:

- Using Canvas
- Using email with attachments
- Downloading and installing word processing and presentation software (e.g., Microsoft Office 365) (See [Accessing Software Needed for Your Course](#).)
- Scanning pages of an assignment into a single .pdf file

Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

UIT Help Desk: [UIT Student Help Desk website](#)
Email: helpdesk@unt.edu
Phone: (940) 565-2324
In Person: Sage Hall, Room 330
Walk-In Availability: Monday – Friday, 8:00AM – 5:00PM
Telephone Availability:
- Monday – Thursday: 8:00AM – 9:00PM
- Friday: 8:00AM – 5:00PM
- Saturday – Sunday: 11:00AM – 3:00PM

Laptop Checkout: For details, see [Laptop Checkout Program](#).

For additional support, visit [Canvas Technical Help](#).

Course Requirements

Reading Assignments

You are responsible for reading the assigned materials during the week indicated on the attached course outline and schedule.

Stats Assessment Pre-Test

The "Stats Assessment Pre-Test" is required for department audit purposes. You will earn 10 points towards your final grade for completing the pre-test. You must submit the pre-test to access the Lesson 1 module and its associated activities and assignments.

Weekly Lessons

There are 13 weekly lessons. Each of these lessons can be found on the "Modules" page on the course website in Canvas. As you click through the pages of a lesson, be sure to conduct the learning checks that are embedded within it. The learning checks are designed to prepare you for the lesson's discussion post, assignment, and quiz. Links to the lesson's discussion post, assignment, and quiz can be found after the "Lesson Files Download" subheading in the lesson. There is no discussion post, "weekly" assignment, or quiz scheduled for the weeks of the mid-term, final exam review, and final exam. See the "Weekly Class Schedule" section in the syllabus for specific dates.

Weekly Discussions

Each of the 13 weekly lessons requires posting to a discussion forum. The post is worth 10 points for a total of 130 points. Once the discussion forum instructions for a lesson have been released, you can assess the discussion by clicking on the dedicated link for it on the "Modules" page of the course website in Canvas, or by clicking on the dedicated link for it on the "Discussions" page of the course website in Canvas. The discussions are designed to help you apply what you learn in the lesson. I strongly recommend that you participate in a lesson's discussion before attempting its weekly assignment or quiz. If you post before Saturday, not only will you earn a bonus point, you'll get feedback from me that you can use to revise and resubmit your post before the final submission deadline. The feedback may also be useful in completing the lesson's other assignments.

Weekly Assignments

Each lesson also has one assignment/problem set. Each is worth 10 points for a total of 130 points. Once the assignment/problem set for a lesson has been released, you can access it by clicking on the dedicated link for it on the "Modules" page in the course website in Canvas. These assignments also apply what you learn in "class" and help to prepare you for the quizzes and exams.

In your answer document, please do not include the questions, only the question numbers and answers. For calculation questions, show your work. For non-calculation questions, answer in complete sentences. Use the dedicated submission link provided for the assignment on the "Modules" page of the course website in Canvas to upload your answer document as a single .pdf file. You will not be permitted to "make-up" a missed assignment. Every effort will be made to provide feedback on an assignment before the next one is due.

Weekly Quizzes

Each of the 13 weekly lessons also has an online quiz. Each quiz is worth 10 points for a total of 130 points. You can access a quiz by clicking on the dedicated link for it on the "Modules" page in the course website in Canvas. Each quiz will open on Monday 8:00AM and close six days after on the following Sunday at 11:59PM. You are given three attempts for each quiz. The attempts will not be timed. The highest score will count towards your course grade. However, please note that each time you take a quiz questions will be randomly drawn from that week's quiz item pool. Therefore, you may get a slightly different set of questions each time you take it. You will not be permitted to "make-up" a missed quiz.

Research Application

The research application is worth 50 points. This assignment involves reading assigned articles (or portions of articles) and answering a series of questions about them. You may also be asked to interpret tables or figures excerpted from an article. The research application will consist of five parts at 10 points each. Each part will be released separately. Once a part is released, you can access it by clicking on the dedicated submission link for it on the "Modules" page of the course website in Canvas.

In your answer document, please do not include the questions, only the question numbers and answers. For calculation questions, show your work. For non-calculation questions, answer in complete sentences. Submit your answer document for each part of the research application separately using the dedicated submission link provided for it. You may submit your draft answers to me for feedback and use the feedback received to revise and resubmit them as long as you adhere to the relevant "feedback" and "final submission" due dates listed in the "Weekly Class Schedule" section of the syllabus.

Getting Help with an Assignment, Quiz Question, or Research Application

If you need help with an assignment, quiz question, or research application, contact me by using the "Inbox" button in Canvas. When you send your message to me using this function, it will go to my UNT email address. Every effort will be made to respond to your message or email within 24 hours. You may also make an appointment to meet with me in-person or virtually via Zoom.

Do not copy another student's work or allow another student to copy yours. Both giving/getting unauthorized help and copying another student's work are violations of UNT's Code of Student Conduct.

Examinations

There are two exams. Each is worth 100 points for a total of 200 points. Approximately two-thirds of the questions on each exam will come from the weekly quiz question pools. However, unlike the weekly quizzes, the exams are timed and can only be accessed one time within the scheduled exam window. Please read the on-screen instructions carefully before you click "Begin." The midterm exam will open on Friday, March 3, 2023 at 8:00AM and close on Sunday, March 5, 2023 at 11:59PM. The final exam will open Monday, May 8, 2023 at 8:00AM and close on Wednesday, May 10, 2023 at 11:59PM. Permission to "make-up" a missed exam will only be given for university-approved reasons.

Extra Credit

Opportunities to earn "extra credit" points may be offered at my discretion. Any such opportunity will be of-fered to all students in the class.

Evaluation

Point values for each of the course requirements and the grading scale for the course are given below.

Point Values for Course Requirements

Requirement	Possible Points
Stats Pre-Test	10
Weekly Discussions (13 @ 10 points each)	130
Weekly Assignments (13 @ 10 points each)	130
Weekly Quizzes (13 @ 10 points each)	130
Examinations (2 @ 100 points)	200
Research Application	50
TOTAL	650

Course Grading Scale

Total Points Earned	Final Course Grade
585 or more	A
520 – 584	B
455 – 519	C
390 – 454	D
389 or fewer	F

UNT Policies

Academic Integrity

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. In this course, a graded assignment compromised by academic dishonesty will earn a zero.

Disability Access

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access.

Prohibition of Discrimination, Harassment, and Retaliation

According to UNT Policy 16.004, Prohibition of Discrimination, Harassment, and Retaliation, UNT prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

Emergency Notification and Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to the course website on Canvas for contingency plans for covering course materials.

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 Dean of Students 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. Visit UNT's Code of Student Conduct to learn more.

Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail. Click on Eagle Connect.

Policy on Server Unavailability or Other Technical Difficulties

The University of North Texas is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. You should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or (940) 565-2324. Obtain, record, and retain your incident report number from the UNT Student Help Desk. The instructor and the UNT Student Help Desk will work with you to resolve any issues at the earliest possible time.

Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Coursework completed via the Canvas on-line system, including grading information and comments, is also stored in a safe electronic environment. You have a right to view your individual record; however, information about your records will not be divulged to other individuals without the proper written consent. You are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 04.008, Records Management and Retention, for additional information.

Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination based on sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT's Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim's compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at (940) 565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565-2759.

Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply

click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](#) or email [spot@unt.edu](#).

Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses. See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](#).

Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Student and Exchange Visitor Program](#) website. The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f) (6) (G).

The paragraph reads:

"For F–1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F–1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement."

University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

1. Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
2. Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the UNT International Student and Scholar Services (ISSS) Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about

their need to participate in an on-campus experiential component for this course, they should contact the UNT ISSS Office (internationaladvising@unt.edu) to get clarification before the one-week deadline.

Academic Support & Student Services

Student Support Services

- Student Health and Wellness Center
- Counseling and Testing Services
- UNT Care Team
- UNT Psychiatric Services
- Individual Counseling
- Registrar
- Financial Aid
- Student Legal Services
- Career Center
- Multicultural Center
- Pride Alliance
- UNT Food Pantry presented by Kroger

Academic Support Services

- Academic Resource Center
- Academic Success Center
- UNT Libraries
- Writing Lab

Note: The following schedule is subject to change. Any changes will be posted to the course website in Canvas.

Weekly Class Schedule

Week	Topic	Reading Assignment	Assignment Due
Week 1 Jan. 17 – Jan. 22	Welcome Letter Review Syllabus Lesson 1 The What & the Why of Statistics	SSDS, Chapter 1 & Appendix F	Due Sunday, 01/22, 11:59PM 1. Stats Assessment Pre-Test 2. Lesson 1 Post 3. Lesson 1 Assignment 4. Lesson 1 Quiz
Week 2 Jan. 23 – Jan. 29	Lesson 2 Frequency/Percentage Distributions & Graphs	SSDS, Chapter 2	Due Sunday, 01/29, 11:59PM 1. Lesson 2 Post 2. Lesson 2 Assignment 3. Lesson 2 Quiz
Week 3 Jan. 30 – Feb. 5	Lesson 3 Measures of Central Tendency & Variability	SSDS, Chapters 3 & 4	Due Sunday, 02/05, 11:59PM 1. Lesson 3 Post 2. Lesson 3 Assignment 3. Lesson 3 Quiz
Week 4 Feb. 6 – Feb. 12	Lesson 4 The Normal Curve	SSDS, Chapter 5	Due Sunday, 02/12, 11:59PM 1. Lesson 4 Post 2. Lesson 4 Assignment 3. Lesson 4 Quiz
Week 5 Feb. 13 – Feb. 19	Lesson 5 Sampling & Sampling Distribution	SSDS, Chapter 6	Due Sunday, 02/19, 11:59PM 1. Lesson 5 Post 2. Lesson 5 Assignment 3. Lesson 5 Quiz
Week 6 Feb. 20 – Feb. 26	Lesson 6 Estimating Population Means	SSDS, Chapter 7	Due Sunday, 02/26, 11:59PM 1. Lesson 6 Post 2. Lesson 6 Assignment 3. Lesson 6 Quiz
Week 7 Feb. 27 – Mar. 5	Midterm Review & Exam	SSDS, Chapters 1-7	Open Fri., 03/03, 8:00AM 1. Midterm Exam Due Sunday, 03/05, 11:59PM 1. Midterm Exam
Week 8 Mar. 6 – Mar. 12	Lesson 7 Introduction to Hypothesis Testing – The One-Sample t Test	SSDS, Chapter 8	Due Sunday, 03/12, 11:59PM 1. Lesson 7 Post 2. Lesson 7 Assignment 3. Lesson 7 Quiz

Week	Topic	Reading Assignment	Assignment Due
Week 9 Mar. 13 – Mar. 19	Spring Break!		
Week 10 Mar. 20 – Mar. 26	Lesson 8 More on Hypothesis Testing – The Two-Sample *t* Test	SSDS, Chapter 8	Due Sunday, 03/26, 11:59PM 1. Lesson 8 Post 2. Lesson 8 Assignment 3. Lesson 8 Quiz
Week 11 Mar. 27 – Apr. 2	Lesson 9 The Bivariate Table	SSDS, Chapter 9	Due Sunday, 04/02, 11:59PM 1. Lesson 9 Post 2. Lesson 9 Assignment 3. Lesson 9 Quiz
Week 12 Apr. 3 – Apr. 9	Lesson 10 The Chi-Squared Test	SSDS, Chapter 10	Due Sunday, 04/09, 11:59PM 1. Lesson 10 Post 2. Lesson 10 Assignment 3. Lesson 10 Quiz
Week 13 Apr. 10 – Apr. 16	Lesson 11 Introduction to Elaboration Analysis	SSDS, Chapter 9	Due Sunday, 04/16, 11:59PM 1. Lesson 11 Post 2. Lesson 11 Assignment 3. Lesson 11 Quiz
Week 14 Apr. 17 – Apr. 23	Lesson 12 Relationships between Interval-Ratio Variables: Scatterplot	SSDS, Chapter 12 (pp. 325-327)	Due Sunday, 04/23, 11:59PM 1. Research Application (to receive feedback before final submission) 2. Lesson 12 Post 3. Lesson 12 Assignment 4. Lesson 12 Quiz
Week 15 Apr. 24 – Apr. 30	Lesson 13 Relationships between Interval-Ratio Variables: Correlation Coefficient	SSDS, Chapter 12 (pp. 345-346, 349-350)	Due Sunday, 04/30, 11:59PM 1. Lesson 13 Post 2. Lesson 13 Assignment 3. Lesson 13 Quiz
Week 16 May 1 – May 7	Final Exam Review	Review SSDS, Chapters 8-10, & 12	Due Sunday, 05/07, 11:59PM 1. Research Application (final version)
Week 17	Final Exam		Open Mon., 05/08, 8:00AM 1. Stats Assessment Post-Test 2. Final Exam Due Wed., 05/10, 11:59PM 1. Stats Assessment Post-Test 2. Final Exam