

**University of North Texas  
College of Liberal Arts and Social Sciences  
Department of Sociology**

**SOCI 3280: Quantitative Data Analysis**

**Spring 2020**

**Instructor:** Dr. Cynthia M. Cready, Associate Professor.

**Classroom:** Online, login to Canvas at <https://unt.instructure.com/login/ldap>

**Instructor's Office:** 288F Sycamore Hall.

**Instructor's Office Phone:** 940.369.8791.

**Instructor's Office Hours:** By appointment.

**Instructor's Email:** Use the "Inbox" button in Canvas to email the instructor. When you send your message, it will go to the instructor's 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.

**Course Prerequisite:**

Must have passed SOCI 3220 Quantitative Data Collection or equivalent with a "C."

**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.

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 by the instructor 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. (2018). *Social statistics for a diverse society* (8th ed.). Thousand Oaks, CA: Sage. ISBN 978-1-5063-4720-2 [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 personal-sized packages of colored candies (e.g., M&M's® or Skittles®).

## **Course Delivery & Organization:**

The course will be delivered entirely online via Canvas. Each week's lesson and associated discussion board posts, assignments, and quizzes (discussed below in "Course Requirements & Grading") will be released every Monday at 8:00AM according to the attached schedule of course topics. Each week's discussion board posts, assignments, and quizzes will be due on the Sunday following their release at 11:59PM.

To get started, click on the "About Canvas" link on the "Welcome" page of the course website in Canvas to learn about the course delivery platform.

To learn more about the course go to the "Start Here" heading on the "Modules" page of the course website in Canvas. In the "Start Here" section, you will find a downloadable .pdf of the course syllabus and the "Stats Proficiency Pre-Test." The "Stats Proficiency Pre-Test" is required for department audit purposes. You will earn **10 points** towards your final grade in the course for completing the pre-test. **You will not be able to access the Lesson 1 Module until you have taken the pre-test.**

## **Student Support:**

If you need technical support in the use of Canvas and supported resources, click on the "Help" button (represented by the "question mark enclosed in a circle" icon) at the bottom of the left panel of your computer screen once you have logged into Canvas.

## **Course Requirements & Grading:**

**Stats Proficiency Pre-Test. (10 points)** As mentioned above, the "Stats Proficiency Pre-Test" is required for department audit purposes. You must submit the pre-test to access the Lesson 1 Module and its associated activities and assignments.

**Reading Assignments.** You are responsible for reading the assigned materials during the week indicated on the attached course outline.

**Weekly Lessons.** Each week's lesson can be found on the "Modules" page on the course website in Canvas. A list of assignments is provided on the last page of each lesson, and the assignments themselves can be found after the "Lesson Files Download" subheading for the lesson. Click through the arrows in the lesson, go over the learning checks, and make sure you understand the material before beginning the assignments. **It is strongly recommended that you do not wait until Saturday and Sunday to begin your work for the week!**

**Weekly Discussions. (10 points each)** There will be one discussion board assignment for each weekly lesson. There will be no discussion board assignment the week of the mid-term, finals review week, and the week of the final exam. (See the "Weekly Class Schedule" for specific dates). This results in a total of 13 Discussion Board assignments—one for each lesson (@ 10 points each) for **a total of 130 points**. You can access a 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.

Be sure to follow the posted instructions. You will not be permitted to "make-up" a missed discussion board post/reply. Every effort will be made to provide feedback on a discussion before the next week's discussions are due.

**Weekly Assignments. (10 points each)** There will also be one assignment/problem set for each lesson. This results in a total of 13 weekly assignments—one for each lesson (@ 10 points each) for **a total of 130 points**. The assignments will help you apply what you learn in “class” and prepare you for the quizzes and exams. The lessons can be found on the “Modules” page of the course website in Canvas. You can access an assignment by clicking on the dedicated submission link for it on the “Modules” page of the course website in Canvas.

Your answers to the assignment’s questions should be numbered and typed in complete sentences and all pages saved as **one** .pdf file using **your** last name and the lesson number (e.g., CreadyLesson1). Use the dedicated submission link provided for the assignment/problem set on the “Modules” page of the course website in Canvas to submit your .pdf file of answers as an attachment. You will not be permitted to “make-up” a missed assignment/ problem set. Every effort will be made to provide feedback on an assignment/problem set before the next week’s assignment/problem sets are due.

**Weekly Quizzes. (10 points each)** There will also be an online quiz for each week’s lesson. You can access the quiz by clicking on the dedicated link for it on the “Modules” page of the course website in Canvas. Each quiz will open on Monday 8:00AM and close six days later on the following Sunday at 11:59PM. You are given three attempts for each quiz. The attempts will not be timed. Only the attempt with the highest grade will be used towards your course grade. However, please note that each time you take a quiz the multiple choice, true/false, matching, and fill-in-the-blank 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. All weekly quizzes (@ 10 points each) will count towards your course grade for **a total of 130 points**.

**Research Application. (50 points)** The research application will involve reading assigned articles (or portions of articles) and answering a series of questions about them. Other questions will ask you to interpret tables or figures excerpted from an article. The research application will consist of five parts (@ 10 points each). Each part will be released separately. You can access each of the released parts by clicking on the dedicated submission link for it on the “Modules” page of the course website in Canvas.

You may submit your answers to **any part** of a research application after its release to the instructor for feedback prior to your final submission provided you adhere to the guidelines outlined in the “Weekly Class Schedule.”

Answers to the questions for each part should be numbered and typed in complete sentences and all pages saved as **one** .pdf file using **your** last name and the assignment title (e.g., CreadyRA1PT1). Use the dedicated submission link provided for each part on the “Modules” page of the course website in Canvas to submit your .pdf file of answers as an attachment.

The research application will be worth 50 points.

**Getting Help with a Post, Assignment, Quiz Question, or Research Application.** If you need help with a post, assignment/problem set, quiz question, or research application, contact the instructor by using the “Inbox” button in Canvas. When you send your message to the instructor using this function, it will go to the instructor’s UNT email address. Every effort will be made to respond to your email within 24 hours. You may also make an appointment to meet with me in person or online via Skype.

You may 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 the UNT Code of Student Conduct ([http://deanofstudents.unt.edu/sites/default/files/images/code\\_of\\_student\\_conduct.pdf](http://deanofstudents.unt.edu/sites/default/files/images/code_of_student_conduct.pdf)).

**Examinations. (100 points each)** There will be two exams (@ 100 points each) for **a total of 200 points**. Approximately 66% of the questions on the exams will come from the weekly quiz question pools. You can access the exams by clicking on the dedicated submission link for each exam on the “Modules” page of the course website in Canvas. The exams are timed (90 minutes) and can be accessed only one time within the scheduled time window

(i.e., not multiple times as with the weekly quizzes). Thus, please read the on-screen instructions carefully before you click “Begin.” The mid-term exam for the course will be released **Thursday, February 27th at 8:00AM** and close on **Sunday, March 1st at 11:59PM**. The final exam will be released **Monday, May 4th at 8:00AM** and close on **Thursday, May 7th at 11:59PM**. Make sure you are using a reliable internet connection. There will be no make-up exams.

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

	<u>Possible Points</u>
Stats Proficiency Pre-Test	10
Discussion Board Posts (13 @ 10 points each)	130
Lesson Assignments (13 @ 10 points each)	130
Lesson Quizzes (13 @ 10 points each)	130
Research Applications (1 @ 50 points)	50
Exams (2 @ 100 points each)	<u>200</u>
	650

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

### **Additional Course Policies & Procedures:**

**Academic Integrity.** As mentioned above, you are expected to understand and comply with [UNT’s Code of Student Conduct](#). Cheating and plagiarism will not be tolerated, and the consequences for engaging in such behaviors in this course will be harsh. Advice on avoiding plagiarism is offered by the [Purdue University Online Writing Lab](#).

**Disability Accommodation.** UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of 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 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 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 see the ODA website at <http://disability.unt.edu/>. You may also contact them by phone at 940.565.4323.

### **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 Electronic Code of Federal Regulations website at <http://www.oea.gov/index.php/links/electronic-code-of-federal-regulations>. The specific portion concerning distance education courses is located at "Title 8 CFR 214.2 Paragraph (f) (6) (i) (G)" and can be found buried with- in this document: <http://www.gpo.gov/fdsys/pkg/CFR-2012-title8-vol1/xml/CFR-2012-title8-vol1-sec214-2.xml>

The paragraph reads:

(G) 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 International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.
- (3) Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, they should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email [internationaladvising@unt.edu](mailto:internationaladvising@unt.edu)) to get clarification before the one-week deadline.

**Policy on Server Unavailability or Other Technical Difficulties.** UNT 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. Students should immediately report any problems to the instructor and also contact the UNT Student Help Desk: [helpdesk@unt.edu](mailto: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 the student 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 F.E.R.P.A. (Family Educational Rights and Privacy Act) laws and the university's policy in accordance with those mandates at the following link: <http://essc.unt.edu/registrar/ferpa.html>.

**Note:** The following schedule is subject to change. Any changes will be announced and posted in Canvas.

**Weekly Class Schedule:**

<b>Week</b>	<b>Topic</b>	<b>Reading Assignment</b>	<b>Due Date</b>	<b>Released</b>
Week 1 Jan. 13 – Jan. 19	Welcome Letter  Review Syllabus  Lesson 1 The What & Why of Statistics	SSDS, Chapter 1	<b><u>Due 01/19, 11:59PM</u></b> 1. Stats Pre-Test 2. Lesson 1 Post 3. Lesson 1 Assignment 4. Lesson 1 Quiz	Stats Pre-Test & Lesson 1 (once the Stats Pre-Test has been submitted)
Week 2 Jan. 20 – Jan. 26	Lesson 2 Frequency/Percentage Distributions & Graphs	SSDS, Chapter 2	<b><u>Due 01/26, 11:59PM</u></b> 1. Lesson 2 Post 2. Lesson 2 Assignment 3. Lesson 2 Quiz	Lesson 2
Week 3 Jan. 27 – Feb. 2	Lesson 3 Measures of Central Tendency & Variability	SSDS, Chapters 3 & 4	<b><u>Due 02/02, 11:59PM</u></b> 1. Lesson 3 Post 2. Lesson 3 Assignment 3. Lesson 3 Quiz	Lesson 3
Week 4 Feb. 3 – Feb. 9	Lesson 4 The Normal Curve	SSDS, Chapter 5	<b><u>Due 02/09, 11:59PM</u></b> 1. Lesson 4 Post 2. Lesson 4 Assignment 3. Lesson 4 Quiz	Lesson 4
Week 5 Feb. 10 – Feb. 16	Lesson 5 Sampling & Sampling Distribution	SSDS, Chapter 6	<b><u>Due 02/16, 11:59PM</u></b> 1. Lesson 5 Post 2. Lesson 5 Assignment 3. Lesson 5 Quiz	Lesson 5
Week 6 Feb. 17 – Feb. 23	Lesson 6 Estimating Population Means	SSDS, Chapter 7	<b><u>Due 02/23, 11:59PM</u></b> 1. Lesson 6 Post 2. Lesson 6 Assignment 3. Lesson 6 Quiz	Lesson 6
Week 7 Feb. 24 – Mar. 1	Midterm Review & Exam	Review SSDS, Chapters 1-7	<b><u>Due 03/01, 11:59PM</u></b> 1. <b>Midterm Exam</b>	Midterm Exam (02/27 at 8:00AM)
Week 8 Mar. 2 – Mar. 8	Lesson 7 Introduction to Hypothesis Testing – The One-Sample $t$ Test	SSDS, Chapter 8 (pp. 203 – 214)	<b><u>Due 03/08, 11:59PM</u></b> 1. Lesson 7 Post 2. Lesson 7 Assignment 3. Lesson 7 Quiz	Lesson 7 & Research Application
Week 9 Mar. 9 – Mar. 15	<b>Spring Break!</b>			

Week 10 Mar. 16 – Mar. 22	Lesson 8 Hypothesis Testing – The Two-Sample $t$ Test	SSDS, Chapter 8 (pp. 214 – 234)	<b><u>Due 03/22, 11:59PM</u></b> 1. Lesson 8 Post 2. Lesson 8 Assignment 3. Lesson 8 Quiz	Lesson 8
Week 11 Mar. 23 – Mar. 29	Lesson 9 The Bivariate Table	SSDS, Chapter 9 (pp. 235 – 246)	<b><u>Due 03/29, 11:59PM</u></b> 1. Lesson 9 Post 2. Lesson 9 Assignment 3. Lesson 9 Quiz	Lesson 9
Week 12 Mar. 30 – Apr. 5	Lesson 10 The Chi-Squared Test	SSDS, Chapter 10	<b><u>Due 04/05, 11:59PM</u></b> 1. Lesson 10 Post 2. Lesson 10 Assignment 3. Lesson 10 Quiz	Lesson 10
Week 13 Apr. 6 – Apr. 12	Lesson 11 Elaboration Analysis	SSDS, Chapter 9 (pp. 246 – 268)	<b><u>Due 04/12, 11:59PM</u></b> 1. Lesson 11 Post 2. Lesson 11 Assignment 3. Lesson 11 Quiz	Lesson 11
Week 14 Apr. 13 – Apr. 19	Lesson 12 Correlation: The Scatter Plot	SSDS, Chapter 12 (pp. 325 – 327)	<b><u>Due 04/19, 11:59PM</u></b> 1. Lesson 12 Post 2. Lesson 12 Assignment 3. Lesson 12 Quiz	Lesson 12
Week 15 Apr. 20 – Apr. 26	Lesson 13 Correlation: The Pearson Correlation Coefficient	SSDS, Chapter 12 (pp. 345 – 346, 349 – 350)	<b><u>Due 04/26, 11:59PM</u></b> 1. <b>Research Application (feedback deadline)</b> 2. Lesson 13 Post 3. Lesson 13 Assignment 4. Lesson 13 Quiz	Lesson 13
Week 16 Apr 27 – May 3	Final Exam Review	Review SSDS, Chapters 8 – 10 & 12	<b><u>Due 05/03, 11:59PM</u></b> 1. <b>Research Application (final deadline)</b>	
Week 17 May 4 – May 7	Final Exam		<b><u>Due 05/07, 11:59PM</u></b> 1. Stats Post-Test 2. <b>Final Exam</b>	Stats Post-Test Final Exam (05/04 at 8:00AM)