FALL 2020 MATH 1680.160

Elementary Probability and Statistics (Online)

Instructor: Jason Taylor
Office Hours: MW 1:00pm-3:00pm and by appointment via Zoom
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Course Description: Introductory course to serve students of any field who want to apply statistical inference. Descriptive statistics, elementary probability, estimation, hypothesis testing and small samples.

Prerequisites: TSI Complete

Textbook (Required): Sullivan and Woodbury. *Interactive Statistics: Informed Decisions Using Data*, 2nd edition. Pearson, 2019. Access to the interactive textbook is included with MyLab Statistics. Students must create a MyLab Statistics account in time to complete the first homework assignment and finalize their purchase before the end of the 14-day free trial.

Guided Notebook: You may use the guided notebook to follow along with the interactive assignments (see below). Click on "Guided Notebook" in the left navigation column of MyLab Statistics to access the guided notebook.

Technology: You must have a computer that is compatible with Respondus LockDown Browser and Respondus Monitor, which will be used to proctor all exams. You must also have a functioning webcam, microphone, and broadband Internet connection. You may use a scientific or graphing calculator and/or StatCrunch on all assignments.

The following technology guides are available in MyLab Statistics:

- Tools for Success > Manuals > Graphing calculator manual for the TI-83/84 Plus and TI-89
- Tools for Success > StatCrunch® > StatCrunch Video Tutorials
- Tools for Success > StatCrunch® > StatCrunch Technology Step-by-Step

Communication: There are two ways to contact me electronically.

1. If you have questions about a specific homework problem, select "Ask My Instructor" from the Question Help menu in MyLab Statistics. I will receive a link to the question showing both your answer and the correct answer, which helps me determine where you may have gone astray.
2. If you have a general question or concern, please send me a Canvas message or an email with "MATH 1680.160" in the subject line. *To protect your privacy, questions about your academic performance must come from your UNT email account.*

Grading Policy: Your course grade will be computed as follows.

- Projects 10%
- Homework 20%
- Quizzes 10%
- Exams 45%
- Final Exam 15%

Interactive Assignments: Instead of a traditional textbook, the course material is contained in interactive assignments that are included with MyLab Statistics. I encourage you to answer the questions in the guided notebook as you watch the interactive assignments.

Homework: You must complete at least 70% of the interactive assignment for each section before starting the corresponding homework.

- Homework questions completed after the due date (but prior to the next exam) will incur a 50% late penalty.
- I will drop the **two** lowest homework scores before computing your homework average at the end of the semester. Thus, you do not need to provide me with a doctor's note or other documentation when you are sick or have a family emergency. If a more serious matter arises (e.g., hospitalization), please contact the Dean of Students office so that they may advocate on your behalf.
- Cooperation on interactive assignments and homework (but not quizzes or exams) is encouraged.

Chapter Summaries: Interactive assignments that summarize the previous chapter. I encourage you to study the chapter summary before attempting the quiz for that chapter.

Chapter Quizzes: The quiz will be due shortly after the last homework assignment in each chapter. The quizzes are designed to help you gauge whether you are prepared to take the upcoming exam, so be sure to take it as if you were taking an exam.

- Each quiz attempt in limited to 30 minutes.
- You may use a scientific or graphing calculator, StatCrunch, and this formula sheet. No other notes or assistance (e.g., Microsoft Excel) are permitted.

Chapter Reviews: The chapter review is designed to help you study for the exam by practicing topics that you have yet to master. You will be automatically granted credit for topics previously mastered on the quiz. *Once you have earned a score of 70% or above on the review, you may retake the quiz to improve your score.*

Projects: There are twelve StatCrunch projects this semester starting from Module 3. All projects will be due on Sunday @ 11:59 pm.

Exams: *Respondus LockDown Browser and Respondus Monitor are required.* You may use a scientific or graphing calculator, StatCrunch, and this formula sheet. No other notes or assistance (e.g., Microsoft Excel) are permitted.

- *No make-up exams will be given.* You may request to take an exam early, provided that I receive the request from your UNT email account at least one week in advance of the day you would like to take the exam.
- The mandatory final exam will be given on Thursday**, December 10.**
- The final exam will be comprehensive in the sense that problems may come from any of the sections covered during the semester.
- Your score on the final exam will replace your lowest exam score, assuming that the score on the final exam is higher, *unless you received a zero on an exam for academic dishonesty* (see below).

Additional Resources: The UNT Learning Center provides the following resources to help you succeed in this class.

- Virtual Math Lab: Drop in to get 5–10 minutes of help with a specific question.
- Ask-A-Tutor: A Lead Tutor will respond to your question within one business day.
- One-on-One Tutoring: Schedule an appointment for a one-hour individual tutoring session via Zoom.

Academic Dishonesty: Students caught cheating or plagiarizing will be subject to any penalty the instructor deems appropriate, ranging from receiving 0 (zero) points on that particular assignment to course failure. Additionally, the incident will be reported the Office of Academic Integrity, who may impose further penalty.

According to the UNT catalog, the term "cheating" includes, but is not limited to:

a) use of any unauthorized assistance in taking quizzes, tests, or examinations;
b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
c) the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university;
d) dual submission of a paper of project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or
e) any other act designed to give a student an unfair advantage.

Furthermore, an attempt to circumvent LockDown Browser or Monitor (e.g., obstructing your webcam or microphone) during an exam will automatically be considered cheating.

The term "plagiarism" includes, but is not limited to:

a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and
b) the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic 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 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 classrooms, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.

Access to Information – Eagle Connect: Your access point for business and academic services at UNT occurs at my.unt.edu. All official communication from the university will be delivered to your Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward your e-mail: eagleconnect.unt.edu.

Students with Disabilities: The University of North Texas 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. For additional information see the Office of Disability Accommodation website at disability.unt.edu. You may also contact them by phone at (940) 565-4323.

Emergency Notification & Procedures: UNT uses a system called Eagle Alert to quickly notify you 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). The system sends voice messages (and text messages upon permission) to the phones of all active faculty, staff, and students. Please make certain to update your phone numbers at my.unt.edu. Some helpful emergency preparedness action include:

1) know the evacuation routes and severe weather shelter areas in the buildings where your classes are held,
2) determine how you will contact family and friends if phones are temporarily unavailable,
3) identify where you will go if you need to evacuate the Denton area suddenly.

In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

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. Course work completed via the Blackboard online system, including grading information and comments, is also stored in a safe electronic environment for one year. You have a right to view your individual record; however, information about your records will not be divulged to other individuals without 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 in accordance with those mandates at the following link: essc.unt.edu/registrar/ferpa.html.

Student Evaluation of Instruction: 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. This short survey will be made available at the end of the semester to provide you with an opportunity to evaluate how this course is taught.

Succeed at UNT: UNT endeavors to offer you a high-quality education and to provide a supportive environment to help you learn and grow. As a faculty member, I am committed to helping you be successful as a student. Here's how to succeed at UNT: *Show Up. Find support. Get advised. Be prepared. Get involved. Stay focused.* To learn more about campus resources and information on how you can achieve success, go to success.unt.edu.

Fall 2020 math 1680 on line Calendar

8/23	**8/24** **CLASSES BEGIN**	8/25	8/26	8/27	8/28 Last day to add/swap a class. Cannot swap up to a higher level class, only down. 1.1, 1.2 ,1.6
8/30 Syllabus Quiz (LockDown + Webcam)	8/31	9/1	9/2	9/3	9/4 12th class day (census) 1.3, 1.4,1.5
9/6 R2-Designing a Statistical Study	9/7 Labor Day – No Classes, University Closed	9/8 Ch1 Quiz	9/9	9/10	9/11 2.1, 2.2, 2.4
9/13 R3-Organizing Qualitative Data2	9/14 Ch2 Quiz	9/15	9/16	9/17	9/18 3.1, 3.2
9/20 R4-Organizing Quantitative Data	9/21	9/22	9/23	9/24	9/25 3.3, 3.4, 3.5
9/27 R5-Numerical Summeries	9/28 Ch3 Quiz	9/29 EXAM 1(Ch1-Ch3) (LockDown + Webcam	9/30	10/1 .	10/2 4.1, 4.2
10/4 R6-Algebra Review	10/5	10/6	10/7	10/8	10/9 4.3,4.4
10/11 R7-Correlation & Regression	10/12 Ch4 Quiz	10/13	10/14	10/15	10/16 5.1, 5.2, 5.3
10/18 R8-Contingency Tables	10/19	10/20	10/21	10/22	10/23 5.4, 5.5, 5.7

10/25 R9-Monty Hall + Counting	10/26 Ch5 Quiz	10/27	10/28	10/29	10/30 6.1, 6.2
11/1 R10-Discrete Random Variables	11/2 Last day to drop with a "W" Ch6 Quiz	11/3 EXAM 2(Ch4-Ch6) (LockDown + Webcam	11/4	*11/5*	11/6 7.1, 7.2, 7.3
11/8 R11-Normal Distribution	11/9 Beginning this date a student may request a grade of "I" Ch7 Quiz	11/10	11/11	*11/12*	11/13 8.1, 8.2
11/15 R12-Sampling Distributions	11/16 Ch8 Quiz	11/17	11/18	*11/19*	11/20 Last day to withdraw from the semester. Grades of W are assigned 9.1, 9.2, 9.3
11/22 R13-Confidence Intervals	11/23 Ch9 Quiz	11/24 EXAM3 (Ch7-Ch9) (LockDown + Webcam	11/25	*11/26* Thanksgiving – University closed	11/27 Thanksgiving – University closed
11/29 Thanksgiving – University closed	111/30	12/1 10.1, 10.2	12/2 Pre-final days	*12/3* Pre-final days Ch10 Quiz	12/4 **Reading Day – no class**
12/6	12/7	12/8	12/9	*12/10*	12/11

CHAPTER 1 Data collection

- 1.1 Introduction to the Practice of Statistics
- 1.2 Observational Studies versus Designed Experiments
- 1.3 Simple Random Sampling
- 1.4 Other Effective Sampling Methods
- 1.5 Bias in Sampling
- 1.6 The Design of Experiments

CHAPTER 2 Organizing and Summarizing Data