Spring 2023
Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION
This course is a 100% online course and uses the TAMUCT Canvas Learning Management System [https://tamuct.instructure.com]. The course is offered in the spring 2023 16-week semester, and the course date range spans January 17 through May 12, 2023 (inclusive). All course deadlines are based on the time zone of the physical location of the university, which is in the Central Standard Time (CST) zone, but Central Daylight Time (CDT) is observed in the summer.

INSTRUCTOR AND CONTACT INFORMATION
Instructor: Dr. Andria F. Schwegler
Office: online via MS Teams linked in the course
Email: Preferred email is in Canvas Inbox in class; if correspondence is not related to the course, contact the professor via TAMUCT email (schwegler@tamuct.edu).

Office Hours:
The instructor is available to meet with students online via MS Teams from their preferred study location. Scheduled office hours are 10:30-11:30am and 12:30-2:30pm CST on Tuesdays, Wednesdays, and Thursdays, and flexible office hours are available by appointment. Students can schedule appointments using this Bookings link:
https://outlook.office365.com/owa/calendar/Examplecalendar@tamuct.onmicrosoft.com/bookings/
Frequent interaction with the instructor is highly encouraged.

Student-Instructor Interaction:
The instructor will logon to the course in Canvas daily during the work week (Monday through Friday) and will reply to email within two business days. Students are expected to logon to the course in Canvas daily to review announcements and resources or to message the instructor with updates on their work. The instructor will provide feedback on written work by posting comments as needed in the Submission box, on the document students submit, or on documents attached to emails. Students should review all comments when feedback is posted to examine and apply the information on subsequent portions of the project to similar assignments.

Emergency Warning System for Texas A&M University-Central Texas
SAFEZONE. SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the SafeZone website [www.safezoneapp.com].

To register SafeZone on your phone, please follow these 3 easy steps*:

1. Download the SafeZone App from your phone store using the link below:
   - o [iPhone/iPad](): [https://apps.apple.com/app/safezone/id533054756]
   - o [Android Phone / Tablet]()
     [https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp]
2. Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
3. Complete your profile and accept the terms of service

For updates on COVID information, please monitor the University [website]
[https://www.tamuct.edu/covid19/]

COURSE INFORMATION
Course Overview and Description:
Catalog: Statistics for the Behavioral Sciences (4 semester credit hours). Study measures of central tendency, variability, and correlation. Analyze applications of statistical inference to research in Psychology, reliability and validity of psychological tests and measurement, analysis of variance, multiple analysis of variance, and regression. Lab sessions will focus on use of statistical software to organize and analyze data and to the translation of raw results of statistical analyses into written APA-style Results sections. Prerequisites: PSYC 2301 and MATH 1314 or MATH 1342 or permission of Department Chair.

Course: Fundamental to this course are explanations of theoretical concepts underlying descriptive and inferential statistics. Content will include frequency distributions and graphing, empirical distributions, theoretical distributions (including the normal distribution), sampling distributions, and the logic underlying confidence intervals and hypothesis testing. In addition to discussion of theoretical concepts, students will calculate measures of central tendency and variability, z scores, correlation coefficients, regression equations, analysis of variance (including one-way, one-factor repeated measures, and factorial designs), and chi-square. Examples and problems will be applied to research in psychology. Selected problems will be interpreted and written in a Results section format according to APA style.

Student Learning Outcomes:
1. Compute basic statistical analyses (descriptives, *t*-tests, ANOVAs, Chi-square, correlations, and linear regression) and identify them in published psychological research.
2. Interpret basic statistical analyses on practice assignments and in published research findings of psychological phenomena.
3. Write survey questions, use a web-based tool for conducting psychological research (e.g., Qualtrics), and analyze the results. Identify appropriate statistical analyses for a variety of research designs.
4. Evaluate the strengths and weaknesses of statistical methods in research contexts, distinguish between hypothesis test result and effect size, interpret test outcomes, and draw inferences supported by data.
5. Write statistical research results in APA style.
6. Perform basic statistical analyses (descriptives, *t*-tests, ANOVAs, Chi-squared, correlations, and linear regression) using computing software (e.g., SPSS, Jamovi, R) commonly used in the field.

Required Reading and Textbook(s):
Required Texts:
American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). Author. (ISBN: 978-1-4338-3216-1)

Gravetter, F. J., Wallnau, L. B., Forzano, L. B., & Witnauer, J. E. (2021). *Essentials of statistics for the behavioral sciences* (10th ed.). Cengage. (ISBN for text only: 9780357365298)

Green, S. B., & Salkind, N. J. (2017). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (8th ed). Pearson. (ISBN: 978-0-13-431988-9)

Required Electronic Resources:

MindTap. MIndTap is an online instructional and homework delivery tool custom-tailored to the Gravetter et al. textbook. Students can purchase MindTap access, which comes with an e-book, at https://login.cengagebrain.com/cb/login.htm **The instructions to register for MindTap are located in the course materials in Module 1 on the "Learning Modules" tab.**

IBM Statistical Package for the Social Sciences (SPSS) Standard GradPack v. 28 (version 27 is acceptable as well). This computing software is widely used to compute statistical analyses and is available for students to use on University computers **free** of charge. If students live far from the University or do not want to use the computer lab resources, students can rent a subscription to SPSS for their personal computers at home. Students can purchase a 6-month or 12-month lease for the program via one of many online vendors. **Be sure to select the STANDARD GradPack not the BASE GradPack**. See the IBM website for a description of the product and a list of vendors: https://www.ibm.com/products/spss-statistics-gradpack

Recommended Resource:

Vogt, W. P., & Johnson, R. B. (2015). *Sage dictionary of statistics and methodology: A nontechnical guide for the social sciences*. Sage. (ISBN: 9781483381770)

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.

COURSE REQUIREMENTS

Course Sequence of Instruction: This course is organized into weekly learning modules (on the "Modules" link on the left menu bar). Each module requires students to perform the following actions. Complete these actions in the following order for each module.

1) **When first logging on to Canvas, read the learning outcomes for each module before completing any course assignments.**
    a. This document will explain the Learning Outcomes for each module and should serve to direct students' attention to important course content.
2) **Participate in Study Hall by posting and responding to questions at any time as you study** (on the "Study Hall" link on the left menu bar).
    a. In the spirit of student-led study groups, the professor created a virtual space for informal, student-to-student and student-to-professor communication concerning matters related to this class. All questions related to the academic content of this class should be asked in Study Hall. Students are expected to respond to their classmates' questions/comments with helpful explanations. Students who can answer a posted question or provide assistance should not wait for the professor to respond. Student led discussion of academic content is expected; however, the professor will monitor Study Hall and will respond to any post that is not adequately addressed by peers (e.g., posts that are unanswered, posts that include inaccurate information, etc.). While students

should provide accurate information in their posts, Study Hall posts are ungraded and present a low threat way of interacting with classmates to help each other learn.

b. To use Study Hall effectively, students should follow the link each time they log on to the class and perform the following actions:

    i. Ask for explanations by creating a new thread in the Study Hall forum and including a title for the thread as the first line. It is certainly acceptable to ask for assistance on any topic in the course **except specific items that are graded** (i.e., questions assigned for homework and questions on exams).

        1. Please note: There are NO graded group projects in this class. All graded assignments must be completed individually with no assistance from classmates, tutors, or other people. **While learning is not a solo endeavor, assessment is!** If you cannot define this distinction or if you are unsure what acts constitute academic dishonesty, ask the professor before engaging in the behavior.

    ii. Offer explanations to other students by replying to a question thread.

    iii. Read old threads as a study tool and reference. Peer explanations are another source of examples and clarifications in addition to your textbook, the videos, and your communications with the professor.

    iv. Network! Don't lose sight of the fact that your classmates will soon be your colleagues in your profession. Establish professional contacts now that you can rely upon later.

c. Students should know that Study Hall is a **public forum,** and all students in the course can access and read all postings; therefore, **private information should not be discussed in Study Hall** (e.g., personal problems or events, confidential information including grades and disability accommodations, and other issues that should be kept between the student and professor only). If students have a personal or confidential topic to discuss, the student should send a message addressed to the professor only.

3) **Use additional online resources at any time as you study each chapter.**

a. The number of websites offering help with statistics is staggering. So, instead of overwhelming students with an exhaustive list, I have suggested a couple of links in addition to MindTap to aid in completing this course. The links are provided in the Optional Supplemental Resources section in the learning modules.

4) **Read/work through the assigned chapter(s) in the Gravetter et al. textbook.** This text provides the primary content for the course. It introduces students to specific techniques and theory in statistics. Follow the steps below when beginning each chapter. (For more information on this technique, search "SQ3R" on the web.)

a. **Survey** – Before reading, spend 2 minutes skimming the pages of the chapter to get a general idea of the chapter content. During this time, read only titles, headings, subheadings, and captions for pictures, tables, graphs, etc. for the entire chapter.

b. **Question** – Next, go back to the beginning of the chapter and skim through it again, turning the title, headings, and subheadings into questions. Guess a plausible answer to each question. Finally, review the "Tools You Will Need" section at the beginning of each chapter and assess the adequacy of your background knowledge. Review previous chapters before reading the new chapter, if needed.

c. **Read** – Go back to the beginning of the chapter and start reading. Slow down your speed for difficult passages, reread captions for graphs and tables as you encounter them, reread sections that are unclear, read only a section at a time, and work through

each calculation as it is presented. If you do not understand a given calculation by "mentally" working through it, take the time to "physically" (with paper and pencil) work through it. Stop reading at each "Learning Check" to recite (see next step).

    d. **Recite** – At the end of each section, stop reading and go back to take notes from the text, writing them **in your own words**. Do not copy notes verbatim from the text. Use the publisher provided PowerPoint slides to organize the notes you take from each chapter. Next, work the problems presented at each "Learning Check" in the text. Completing these checks will identify the material you may not fully understand, so you can immediately review it. You will be unable to understand later concepts without first understanding initial concepts. **The material in this class is cumulative.** You must understand each calculation and its rationale as you encounter it because it will form the foundation for more sophisticated techniques later.

    e. **Review** – Use the odd-numbered "Problems" at the end of each chapter to review the material for that chapter. Work the odd-numbered problems for each chapter and check your work. Answers are provided for the odd-numbered problems in the back of the text. (The even-numbered problems will be assigned as Homework through MindTap as explained below).

5) **Use the PowerPoint (PPT) slides for each chapter to take notes from the text on them.**

    a. See the 'Recite' section of the SQ3R method above for taking notes as you read the text.

6) **Write the Muddiest Point Discussion Post and Reply for each module.**

    a. Each discussion forum allows students to identify the most challenging or confusing concept from the module to discuss with others in a helpful, mutually supportive manner. Students should post on the concept they are having the most difficulty understanding, explain what is confusing to them about the concept, research the concept using reputable online resources, then write an explanatory paragraph about the concept in their own words, and cite the source(s) of the online information they used to learn about the concept. Each initial discussion post should be at least 8-12 sentences in length, should be well-organized, should explain the concept, and should include citations so classmates can follow the links to learn more.

    b. Students should respond to at least one other discussion post in the forum each week with additional explanations to clarify the concept or with explanations that link the concept to other, related concepts from the course. Only responses that contain course content that extend the application of the initial concept will receive credit. Responses that do not discuss statistical content or research applications will not receive credit. While complimenting others on their work is professional and appropriate (e.g., "good job," "I agree," "well written"), posts limited to just these remarks are not credited as they do not teach others about statistics.

    c. Initial posts are due by the end of the day on Thursdays (i.e., 11:59pm CST) prior to the close of each Module. Replies to initial posts are due with the remaining assignments on Mondays by 8:00am CST.

7) **Watch the instructional video(s) that accompany each chapter as you study the text.**

    a. The professor filmed short video segments to demonstrate examples of the analyses presented in the text. The intent of the videos is NOT to replace the text but to walk students through the process of setting up a problem and finding its solution to supplement the ready-made solutions presented in the textbook.

    b. Many students find it puzzling that the completed problems in the text seem so easy and obvious while beginning a problem on a blank piece of paper is so difficult and

confusing. The videos will guide students from a blank page to a completed problem with the goal of bringing the problem 'to life.'

    c.   Students are expected to watch each video and/or review the video text transcript and work the problems with the professor just as they would in a face-to-face course. But, unique to an online course, students have the ability to pause the video to finish working calculations at their own pace, and students can repeat segments of the video as many times as needed to understand the procedure.

8) Make an appointment for virtual office hours (synchronous communication) or email the professor (asynchronous communication) for assistance when needed.

    a.   The professor will log on to the class in Canvas daily on weekdays (Monday through Friday), unless otherwise announced. The professor will respond as quickly as possible to emails, usually within two business days. All course-related email should be conducted through the Inbox tool.

    b.   In addition, the professor will hold synchronous, online office hours as requested in class. During these office hours, students may log on and interact with the professor in real time. Students will need speakers and a microphone to use this option, or students can call in using their phones. If using the computer, it is preferable that students use 1) a headset when speaking to reduce echo and feedback and 2) a wired (not wireless) internet connection. Message the professor in class to schedule a time to meet.

9) Complete the Homework problems for each chapter.

    a.   Only after thoroughly reading the text, using the interactive online websites, working the "Learning Check" problems in the text, and reviewing the odd-numbered "Problems" at the end of the chapter, complete your homework problems in MindTap http://login.cengagebrain.com/. This site delivers practice problems with explanations (optional) and assigned homework problems (required). For your homework problems, MindTap provides grading feedback and explanations for each problem at the deadline for the assignment. Immediate feedback is available for the practice problems in MindTap.

10) Read/work through the assigned lessons in the Green & Salkind (G&S) textbook.

    a.   This text provides a thorough explanation for using the computer software Statistical Package for the Social Sciences (SPSS) to perform statistical analyses of data using a computer.

    b.   Students should not only read this text, but students should also follow along with each step using the SPSS program itself. Students will be unable to fully understand how to use SPSS by merely reading the textbook. Students should work with the SPSS program on a computer, using the textbook as a reference.

11) Complete the SPSS Assignments from the G&S textbook for each module.

    a.   To practice the techniques in the Green and Salkind textbook, students will submit labeled SPSS output of assigned statistical analyses. Students will use SPSS and Jamovi to perform virtually every statistical procedure we learn to compute by hand in the course. The hand computations reveal what the SPSS program does "behind the scenes." In future schoolwork and professions, students will be more likely to use computer programs such as SPSS to perform statistical analyses; however, numbers on a page are meaningless unless students understand what the data means and know how to interpret it. Therefore, both hand calculations and software calculations of data are integrated in this course.

12) Write the Research Application Assignments for each module.

a. After reading, practice, and homework assignments are complete, students should have a solid understanding of chapter content. The next step in the learning process is to apply the newly learned concepts to research in psychology as it pertains to the student's life and future work. The Research Application activities may require students to explain the connection between a statistical concept and a decision they must make, interpret published research in psychology, or review and integrate concepts across chapters in their own words. In addition, some activities will require students to write an APA style Results section for a completed analysis that is appropriate for inclusion in a manuscript submitted for publication (e.g., thesis or research article).

b. Students should create a folder on their computers to save and chronologically order all of their completed Research Application activities. At the end of the semester, students will be expected to refer to these activites written earlier in the semester. Additionally, having quick access to the APA style Results sections will be of great benefit to students when they are enrolled in their research methods course in the future.

c. All activities must be completed independently unless specified in the assignment instructions (i.e., some will include group work) and written in a student's own words. Any evidence of collaboration when it is not required for the assignment or plagiarism will result in no credit for the assignment.

13) Comprehensively review several chapters and take the Exams.

a. The final step of study will be completing five timed exams. Once an exam is started, it must be completed in the same session. Each exam will be comprised of multiple-choice questions that span several chapters. As previously stated, the material in this course is cumulative, and as such, ALL course content covered prior to an exam is testable material for that exam. On the Course Calendar, each exam is labeled with the chapters that will be the primary focus of the exam. However, students should realize that calculations learned in earlier chapters will also appear on exams though the specific chapter where the calculation was first introduced may not be listed on the Calendar as exam content. For example, calculating a standard deviation, which is introduced in Chapter 4, is relevant to calculations in all later chapters and is testable material for Exam 3 and Exam 4 though Chapter 4 is not specifically listed next to that exam on the Calendar.

Course Assignments: Students are responsible for meeting the course requirements as scheduled for each module in the course calendar. **Assignments submitted after the due date will not receive full credit**. A 25% penalty per day will be imposed on all assignments submitted after the deadline. Specifically, assignments submitted after the deadline on the due date will receive a 25% penalty, assignments submitted more than 24 hours after the deadline will receive a 50% penalty, assignments submitted more than 48 hours after the deadline will receive a 75% penalty, and assignments submitted more than 72 hours after the deadline will receive no credit though the professor will still provide feedback on the assignment.

All assignments must be written in a student's own words. No credit will be awarded for quoted or plagiarized material on any assignment. **Quoting or paraphrasing that closely mirrors the source (textbook or other reference material) will receive no credit even if properly cited. Students must write original sentences conveying the information they have learned to the reader (i.e., paraphrasing) and properly cite the source of the information to receive credit for writing.**

All assignments should be written in proper APA style. Students must follow the APA style guidelines provided in the *Publication Manual* and use online style resources provided by the American Psychological Association at www.apastyle.org

***Muddiest Point Discussion and Response* (12% of Overall Course Grade; 8 points each, 15 assignments due).** Students are expected to identify the concept they find the most challenging from each chapter and write a brief explanation of 1) why they find the concept challenging or confusing and 2) the concept in the **student's own words** after researching the concept in the textbook and online. Students must cite all online sources and include a working hyperlink to the source to receive credit for the post. At least one online source must be used for all muddiest point explanations. Quoting from the textbook and/or online sources will **not** receive credit. In their description and explanation, students should write a brief (8 to 12 sentence) explanatory paragraph on the concept to help themselves and their classmates recognize and understand these concepts as they progress through course content.

***Homework Problems* (21% of Overall Course Grade; 14 points each, 15 assignments due).** Problems pertaining to the content of each chapter will be assigned as homework problems through MindTap. All homework must be completed independently. To complete homework, students may use textbooks, notes, calculators, and internet resources, but students may not use other people (i.e., classmates, friends, tutors) as resources to complete graded assignments.

***SPSS Assignments* (20% of Overall Course Grade; 20 points each, 10 assignments due).** Each week students will perform analyses using SPSS software and will submit 10 assignments through the course of the semester. The initial assignments for SPSS (Units 1 through 3) are intended to allow students to gain familiarity and practice with the program. Then, beginning with Unit 5, students will begin to submit graded assignments. Credit will be awarded only for properly labeled assignments as indicated on each set of instructions. Without labels, there is no evidence that students have examined the output, and there is no evidence that students can interpret the output. To meet the goals of this assignment, it is not sufficient that students are able to generate SPSS output. Numbers and tables on a page are meaningless unless one knows how to interpret them properly. Thus, students who submit SPSS output that is not labeled as specified in each assignment will not receive credit for their submissions. Labels to include on all SPSS output are explicitly stated in each assignment and vary depending on the type of analysis conducted. Points awarded for each label are stated on each assignment.

***Research Application Activities* (21% of Overall Course Grade; 15 points each, 14 assignments due).** Each week students will engage in activities that require them to apply statistical concepts to research, their personal lives, and/or their future careers. The specific writing assignment will vary weekly to provide students an introduction to the application of statistics to research that will be expanded in the research methods course.

***Examinations* (25% of Overall Course Grade; 50 points each, 4 assignments due plus 1 final exam worth 50 points).** Four exams (50 points each) that include both multiple choice items and problems to calculate will be given during the semester (see Course Calendar for dates). These tests will cover content from the assigned chapters and activities listed in the Course Calendar. A comprehensive final examination will be given during final exam week (50 points). Students may use textbooks, notes, and calculators when completing the exams. However, all exams must be completed independently. Direct all questions to the professor of the course. Students should use a hardwired internet connection, NOT a wireless internet connection when completing

exams. Wireless connections "blink," and when they do, students will be exited from the exam and will not be allowed to re-enter it. If students are kicked out of an exam unexpectedly, email the professor immediately. To reduce the likelihood of this occurrence, physically plug the computer into the wall port with an internet cable.

Research Experience Requirement: Students in selected psychology courses (PSYC 3307, PSYC 3409, PSYC 3312, PSYC 3430, PSYC 4320) are required to engage in research experience activities as part of the course. The research experience activity includes writing summaries of peer reviewed research articles that are related to the course content. The course instructor will identify which articles can be reviewed for their course, and article reviews can be submitted directly to the faculty member for evaluation.

If students choose not to write article summaries, they can complete an alternative research experience by participating in research studies directly related to psychology to gain this experience.

Sign Up for Alternative Research Experience: To receive credit for this alternate research experience activity, students must create an account in SONA. The [university SONA account](https://tamuct.sona-systems.com) is where students will sign up to participate in research projects (https://tamuct.sona-systems.com). Students should view the introductory [tutorial video](https://www.youtube.com/watch?v=_1OnT2ZU6QQ) before using SONA (https://www.youtube.com/watch?v=_1OnT2ZU6QQ) and be sure to use their **university email** when signing up. Students who have problems signing up for SONA or have questions should contact the professor of the course.

Credits: Students are required to complete 3 research experience credits in this course. Credit is allotted as follows based on estimated participation time:
•1 credit for each summary of a peer-reviewed, research article **OR**
•1 credit for each hour (60 minutes) of research participation (in-person or online)
•1⁄2 credit for each 1⁄2 hour (30 minutes) of research participation (in-person or online)

Students can use a combination of article summaries and alternative research assignments to earn their credits. There is no guarantee that there will be sufficient research participation opportunities for students to earn 100% of their credits from the alternative research experience.

Students who drop a class after having earned research experience credit cannot apply any accumulated credit from that class towards future semesters without the documented approval of the department chair; however, credits in SONA can be transferred from one course to another in the same semester. Credits from previous semesters are not permitted to be transferred for current semester use.

Penalties: Students should earn at least 1 research credit before the midterm of the course (March 13, 2023). Any student who has not earned all required research credits prior to the end of the semester will be penalized 1 letter grade on the final course grade (May 12, 2023).

Grading Criteria Rubric and Conversion

Assignments	Number Due	Points Each	Points Total	Percentage
MP Discussion and Reply	15	8	120	12.0
Chapter Homework Problems	15	14	210	21.0
SPSS Assignments	10	20	200	20.0
Research Application	14	15	210	21.0
Exam 1	1	50	50	5.0
Exam 2	1	50	50	5.0
Exam 3	1	50	50	5.0
Exam 4	1	50	50	5.0
Final Exam	1	50	50	5.0
			1000	100%

Table 1 Grading Criteria

Posting of Grades

Grading Scale: Grades are not 'given' in this course; they are earned. Students earn grades by actively utilizing course content (i.e., Homework Problems and SPSS Assignments) and by demonstrating their grasp of subject-matter content on written assignments (i.e., Research Applications and Discussion forums) and exams. Grades are determined based on the percentage of points earned on each assignment and the assignment's weight toward the overall course grade.

Grade	University Definition	Percentage
A	Excellent	90-100
B	Good	80-89
C	Fair	70-79
D	Passing	60-69
F	Failing	59 or below

Table 2 Grade Percentages

Grade Posting: All students' grades will be posted in the Canvas Grade Center after the assignment due date has passed. Grades on Homework Problems will also be available in the MindTap grade book immediately after the assignment's due date has passed. Students are encouraged to independently verify their Homework grades in MindTap and ensure that the professor has transferred them into Canvas properly. On the SPSS and writing assignments (i.e., Discussion forums and Research Applications), the professor will begin reading, grading and recording grades on the Monday they are due and will have all grades posted within one week. Students should regularly monitor their grades in the Canvas Grade Center, and *students should not hesitate to ask the professor about any grade or concern*.

COURSE OUTLINE AND CALENDAR

Week	Module	Instructional Activities	Assignments Due
	Get Ready	Log on to Canvas Review Make the Most of MindTap Establish library access from home Create a quiet study environment Resolve all computer difficulties Find a 'back-up' computer w/internet Introduce self in discussion forum	**All assignments are due by 8:00am CST on Mondays except for initial discussion posts which are due by the end of the day on Thursdays (i.e., 11:59pm CST) prior to the close of the Module.**
January 17 (12:30am) through January 23 (8:00am)	Module 1: Introduction to Statistics	**CLASS** Read G&W Chapter 1 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Unit 1 (Lessons 1 through 4) Complete Research Application Activity	**CLASS** Discussion & Reply Ch 1 Homework Problems **LAB** SPSS 1-4 verification Research Application: Identifying Concepts in Research
January 20 (12:30am) through January 30 (8:00am)	Module 2: Frequency Distributions	**CLASS** Read Chapter 2 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Unit 2 (Lessons 5 through 10) Complete Research Application Activity	**CLASS** Discussion & Reply Ch 2 Homework Problems **LAB** SPSS Lesson 10 (Importing Data) Research Application: Cleaning Data
January 27 (12:30am) through February 6 (8:00am)	Module 3: Central Tendency	**CLASS** Read Chapter 3 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Unit 3 (Lessons 12 through 14) Complete Research Application Activity	**CLASS** Discussion & Reply Ch 3 Homework Problems **LAB** Research Application: Writing Survey Questions

Week	Module	Instructional Activities	Assignments Due
February 3 (12:30am) through February 13 (8:00am)	Module 4: Variability	**CLASS** Read Chapter 4 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Unit 4 (Lessons 16 through 18) Complete Research Application Activity	**CLASS** Discussion & Reply Ch 4 Homework Problems **LAB** Research Application: Creating and Completing Surveys
February 10 (12:30am) through February 20 (8:00am)	Module 5: z-Scores	**CLASS** **Take Exam 1 (Chapters 1-4)** Read Chapter 5 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Complete Research Experience 1 Complete Research Application Activity	**CLASS** **Exam 1 (Chapters 1-4)** Discussion & Reply Ch 5 Homework Problems **LAB** Research Experience Credit Research Application: Using z Scores
February 17 (12:30am) through February 27 (8:00am)	Module 6: Probability	**CLASS** Read Chapter 6 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lesson 13 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 6 Homework Problems **LAB** SPSS Lesson 13 (Computing Variables) Research Application: Analyzing Survey Data
February 24 (12:30am) through March 6 (8:00am)	Module 7: Probability and Samples	**CLASS** Read Chapter 7 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lesson 19 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 7 Homework Problems **LAB** SPSS Creating Variables (Lesson 19) Research Application: Interpreting Probability Estimates

Week	Module	Instructional Activities	Assignments Due
March 3 (12:30am) through March 13 (8:00am)	Module 8: Introduction to Hypothesis Testing	**CLASS** Read Chapter 8 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lesson 20 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 8 Homework Problems **LAB** SPSS Frequency Analysis (Lesson 20) Research Application: Interpreting Research
March 13 Through March 17	**SPRING BREAK**		
March 17 (12:30am) through March 27 (8:00am)	Module 9: Introduction to the *t* Statistic	**CLASS** **Take Exam 2 (Chapters 5-8)** Read Chapter 9 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Complete Research Experience 2 Read/Work G&S SPSS Lesson 22	**CLASS** **Exam 2 (Chapters 5-8)** Discussion & Reply Ch 9 Homework Problems **LAB** Research Experience Credit SPSS One-Sample *t* Test (Lesson 22)
March 24 (12:30am) through April 3 (8:00am) March 31 is Graduation Application Deadline for Ceremony Participation	Module 10: *t* Statistic for Two Independent Samples	**CLASS** Read Chapter 10 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lessons 24 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 10 Homework Problems **LAB** SPSS Independent *t* Test (Lesson 24) Research Application: Writing APA Results Section

Week	Module	Instructional Activities	Assignments Due
March 31 (12:30am) through April 10 (8:00am)	Module 11: *t* Statistic for Two Related Samples	**CLASS** Read Chapter 11 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lessons 23 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 11 Homework Problems **LAB** SPSS Paired *t* Test (Lesson 23) Research Application: Writing APA Results Section
April 7 (12:30am) through April 17 (8:00am)	Module 12: Introduction to Analysis of Variance	**CLASS** Read Chapter 12 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems Write Application Essay **LAB** Read/Work G&S SPSS Lesson 25 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 12 Homework Problems **LAB** SPSS One-Way ANOVA (Lesson 25) Research Application: Writing APA Results Section
April 14 (12:30am) through April 24 (8:00am)	Module 13: Two-Factor Analysis of Variance	**CLASS** **Take Exam 3 (Chapters 9-12)** Read Chapter 13 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lesson 26 Complete Research Application Activity	**CLASS** **Exam 3 (Chapters 9-12)** Discussion & Reply Ch 13 Homework Problems **LAB** SPSS Factorial ANOVA (Lesson 26) Research Application: Writing APA Results Section

Week	Module	Instructional Activities	Assignments Due
April 21 (12:30am) through May 1 (8:00am)	Module 14: Correlation and Regression	**CLASS** Read Chapter 14 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lessons 31 and 33 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 14 Homework Problems **LAB** SPSS Correlation (Lesson 31) SPSS Regression (Lesson 33) Research Application: Writing APA Results Section
April 28 (12:30am) through May 8 (8:00am)	Module 15: Chi-Square Statistic	**CLASS** Read Chapter 15 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Muddiest Point Discussion & Reply Complete Homework Problems **LAB** Read/Work G&S SPSS Lessons 39, 40, 41 Complete Research Application Activity	**CLASS** Discussion & Reply Ch 15 Homework Problems **LAB** SPSS Chi Square (Lesson 41) Research Application: Distinguishing Significance and Effect
May 8 (**8:00am**) through May 12 (**11:59pm**)	Module 16: Final Exam	**Take Exam 4 (Chapters 13-15)** Take Comprehensive Final Exam (Chapters 1-15) Complete Research Experience 3	**Exam 4 (Chapters 13-15)** **Final Exam** Research Experience Credit

Table 3 Course Calendar

The professor reserves the right to amend this syllabus at any time. If revisions are necessary, the professor will make every effort to provide as much advanced notice as possible.

Important University Dates
See the Academic Calendar: https://www.tamuct.edu/registrar/academic-calendar.html

TECHNOLOGY REQUIREMENTS AND SUPPORT

Technology Requirements
This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no long supports any version of Internet Explorer.

Logon to A&M-Central Texas Canvas [https://tamuct.instructure.com/] or access Canvas through the TAMUCT Online link in myCT [https://tamuct.onecampus.com/]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

Canvas Support
Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select "Chat with Canvas Support," submit a support request through "Report a Problem," or call the Canvas support line: 1-844-757-0953.
For issues related to course content and requirements, contact your instructor.

Online Proctored Testing

A&M-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. If the course requires identity verification or proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio also requires the Chrome web browser with their custom plug in.

Other Technology Support
For log-in problems, students should contact Help Desk Central.
24 hours a day, 7 days a week:
     Email: helpdesk@tamu.edu
     Phone: (254) 519-5466
     Web Chat: [http://hdc.tamu.edu]
Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Warrior Center for Student Success, Equity and Inclusion is responsible for ensuring that students with a disability receive equal access to the university's programs, services and activities. If you believe you have a disability requiring reasonable accommodations, please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information, please visit our Access & Inclusion Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Office of Student Conduct. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more information regarding the student conduct process, [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may submit a referral, [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

Drop Policy

If you discover that you need to drop this class, you must complete the Drop Request Dynamic Form through Warrior Web.

[https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdpId=https://eis-prod.ec.tamuct.edu:443/samlsso&SpSessionAuthnAdapterId=tamuctDF&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f53b8369e-0502-4f36-be43-f02a4202f612].

Faculty cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Registrar's Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Important information for Pregnant and/or Parenting Students

Texas A&M University-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit Student Affairs [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these requirements and guidelines online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender–including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.

Tutoring

Tutoring is available to all A&M-Central Texas students, both virtually and in-person. Student success coaching is available online upon request.

If you have a question, are interested in becoming a tutor, or in need of success coaching contact the Warrior Center for Student Success, Equity and Inclusion at (254) 501-5836, visit the Warrior Center at 212 Warrior Hall, or by emailing WarriorCenter@tamuct.edu.

To schedule tutoring sessions and view tutor availability, please visit Tutor Matching Services [https://tutormatchingservice.com/TAMUCT] or visit the Tutoring Center in 111 Warrior Hall.

Chat live with a remote tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas except writing support. Access Tutor.com through Canvas.

University Library & Archives

The University Library & Archives provides many services in support of research across campus and at a distance. We offer over 350 electronic databases containing approximately 631,525 eBooks and 75,149 journals, in addition to the 97,443 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place virtually through WebEx, Microsoft Teams or in-person at the library. Schedule an appointment here [https://tamuct.libcal.com/appointments]. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our Library website [https://tamuct.libguides.com/index]

University Writing Center

University Writing Center: Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University–Central Texas (A&M–Central Texas) is a free service open to all A&M–Central Texas students. The hours of operation are from 10:00 a.m.-5:00 p.m. Monday thru Thursday in Warrior Hall 416 (with online tutoring available every hour as well) with satellite hours available online only Monday thru Thursday from 6:00-9:00 p.m. and Saturday 12:00-3:00 p.m.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support

throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via WCOnline [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

Sexual Violence at A&M-Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Wellness and Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the Title IX webpage [https://www.tamuct.edu/compliance/titleix.html].

Behavioral Intervention

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the referral online

[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the Behavioral Intervention Team website for more information [https://www.tamuct.edu/bit]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.

INSTRUCTOR POLICIES

Student Created Content:
All content submitted to the course for credit must be the student's own creation. Students must write or paraphrase and properly cite all content submitted. No credit will be awarded for plagiarized or quoted material even if it is appropriately cited (i.e., students cannot receive credit for submitting content that someone else wrote). Students should paraphrase all information and provide the appropriate citations.

APA Style:
All text and citations submitted for course credit must follow the guidelines of the *Publication Manual of the American Psychological Association* (7th ed.).

Copyright Information:
Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

Late Work:
Late work will receive a grade penalty. A 25% penalty per day will be imposed on all assignments submitted after the deadline. Specifically, assignments submitted after the deadline on the due date will receive a 25% penalty, assignments submitted more than 24 hours after the deadline will receive a 50% penalty, assignments submitted more than 48 hours after the deadline will receive a 75% penalty, and assignments submitted more than 72 hours after the deadline will receive no credit though the professor will still provide feedback on all submitted assignments.

Recommended Academic Strategies:
1. According to the federal definition of a credit hour, students should spend "not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class…for one semester hour of credit" (https://sacscoc.org/app/uploads/2019/08/Credit-Hours.pdf). For a 4-credit hour class that is delivered fully online, students should spend at least **12 hours on coursework per week for a 16-week course.** Bear in mind that this guideline is for an average class. Some students may find this course challenging and may require *significantly more time* to grasp the concepts and complete the assignments. Plan accordingly.
   a. Research indicates that spaced practice is better than massed practice when learning new information. Thus, spending 3 hours a day for 6 days a week on coursework is better for your learning and your grade than 'pulling an all-nighter.' Adjust your schedule accordingly.
   b. Begin each module the day it opens. The course requirements are too time-demanding and labor-intensive to wait until the last day an assignment is due to begin work.
2. Be professional and use proper netiquette (i.e., internet etiquette) in all course correspondence. Your college education is grooming you for a professional career.
   a. Use standard English in all of your communications. Do not abbreviate or use texting shortcuts (e.g., OMG! R U kidding. ROFL!). Spell check, revise, and edit your messages before sending them. Use proper punctuation and capitalization.
   b. Be polite and respectful of others. Do not use all UPPERCASE LETTERS, which is equivalent to shouting. Avoid sarcasm and irony because they are easily misinterpreted by the reader. Do not 'flame' others by sending negative or hurtful comments; though the reader cannot see you, you are not anonymous.
   c. Remember that you are individually accountable for all your messages and online actions. Treat all of your interactions with others in class as you would in your future professional career.
3. Follow the sequence of instruction. Gaining a full, independent understanding of the text is absolutely critical in an online course, and the sequence of instruction provides diverse activities based on sound educational practice to meet this goal. (If you are memorizing the formulas, you are studying for the class incorrectly!)

4. Pay attention to the percentage of your grade each assignment is worth. Simply doing well on the exams will not allow you to pass the course. Students must submit all assignments every week to do well in the course.
5. Complete and submit course assignments on time. Find a "back-up" computer with internet access if your primary computer "crashes" or you have connection difficulties. Save your work often and on multiple media (e.g., hard drive, jump drive), so you do not lose your work.
6. Stay focused. Just as in a face-to-face class, reduce as many distractions as possible when working on course assignments. Turn off all electronic devices such as cell phones, music players, gaming equipment, etc. Postpone business not related to the course until you have completed your assignments for the day.
7. Keep me informed. At the first sign of confusion or difficulty, request assistance in Study Hall. Unless I hear from you, I will not know how to help you.