

PSYC 3330-110, CRN 60024, STATISTICS FOR THE BEHAVIORAL SCIENCES

Summer 2018

Texas A&M University-Central Texas

INSTRUCTOR AND CONTACT INFORMATION

Instructor: Dr. Andria F. Schwegler

Office: online via WebEx linked in the course

Phone: VoIP; schedule an appointment to receive number and PIN

Email: Preferred email is in Canvas Inbox in class; use schwegler@tamuct.edu for non-class related communication

Office Hours:

The professor is available to meet with students via voice over the internet protocol (VoIP) by appointment. Students should message the professor inside Canvas to schedule a time. Appointment times are very flexible, and regular meetings are highly encouraged.

Mode of instruction and course access:

This course is a 100% online course and uses the TAMUCT Canvas Learning Management System: [<https://tamuct.instructure.com>]

Student-instructor interaction:

The professor 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 professor with updates on their work.

The professor 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 or similar assignments.

Students should message the professor to schedule an appointment to talk as needed.

911 Cellular:

Emergency Warning System for Texas A&M University-Central Texas

911Cellular is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in 911Cellular through their myCT email account.

Connect at [911Cellular](https://portal.publicsafetycloud.net/Texas-AM-Central/alert-management) [<https://portal.publicsafetycloud.net/Texas-AM-Central/alert-management>] to change where you receive your alerts or to opt out. By staying enrolled in 911Cellular, university officials can quickly pass on safety-related information, regardless of your location.

COURSE INFORMATION

Course Overview and Description:

Catalog: Statistics for the Behavioral Sciences (3 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. 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. *Demonstrate factual knowledge of basic statistical vocabulary and computations.* Students will define key terms in their own words. Students will hand calculate measures of central tendency and variability, z scores, correlation coefficients, regression equations, analyses of variance and chi-square. Students will demonstrate their ability to define terms and compute functions on Homework Problems and Exams.
2. *Demonstrate factual knowledge of fundamental principles, generalizations, or theories regarding basic statistics.* Students will read and write about theoretical concepts underlying descriptive and inferential statistics, including frequency distributions and graphing, empirical distributions, theoretical distributions, sampling distributions, and the logic underlying confidence intervals and hypothesis testing. Students will demonstrate their ability to explain selected concepts on the Key Concept writing assignments.
3. *Demonstrate specific skills, competencies, and points of view needed by professionals in the field.* As future professionals with a Psychology or related degree, students will need to know how to use statistical computing software to perform statistical analyses and will need to know how to write the results of these analyses in the style adopted by this field. Therefore, students will demonstrate their ability to perform statistical analyses in SPSS by producing and labeling SPSS output. Students will demonstrate their ability to use appropriate APA style by translating the raw results of statistical analyses into written APA style Results sections submitted as Application Essays.
4. *Apply course material to improve thinking, problem solving, and decision making.* Students will apply course material to improve decision making by writing personally-relevant Application Essays that require the use of statistical information to solve personal problems that span a variety of topics. Students will apply course material to develop metacognitive thinking by 1) reflecting on personal experiences with learning course content and completing course assignments, 2) documenting study time and rating the helpfulness of assignments on Weekly Reflections, and 3) creating and /or revising study strategies for upcoming lessons.

Required Reading and Textbook(s):

Required Texts:

- American Psychological Association. (2009). *Publication manual of the American psychological association* (6th ed.). Washington, DC: Author. (ISBN: 978-1-4338-0561-5)
- Gravetter, F. J., Wallnau, L. B., Forzano, L. B. (2018). *Essentials of statistics for the behavioral sciences* (9th ed.) Belmont, CA: Wadsworth. (ISBN for text only: 978-1-337-09812-0)
- Green, S. B., & Salkind, N. J. (2017). *Using SPSS for Windows and Macintosh: Analyzing and Understanding Data* (8th ed). Boston: Pearson. (ISBN: 978-0-13-431988-9)

Required Electronic Resources:

Aplia Statistics for Psychology and the Behavioral Sciences. Aplia is an online instructional and homework delivery tool custom-tailored to the Gravetter, Wallnau, and Forzano textbook. Students can purchase Aplia access, which comes with an e-book, at <https://login.cengagebrain.com/cb/login.htm>. If students do not already have an account, click the 'Create a New Account' button and enter the course key when prompted. Then follow the on-screen instructions. **The course key and instructions to register for Aplia access is located in the course materials in Module 1 on the "Learning Modules" tab.** Be advised: Students' ability to access the e-book is limited to only the duration of this course (i.e., the length of the Aplia subscription). Because students will use their knowledge of statistics in PSYC 4435 and later in their careers, I highly recommend that students have a statistics book to keep in their professional collections for future reference.

IBM Statistical Package for the Social Sciences (SPSS) Standard GradPack v. 25. 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/us-en/marketplace/spss-statistics-gradpack>

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 objectives for each module before completing any course assignments.**
 - a. This document will explain the Learning Objectives for each module and should serve to direct students' attention to important course content.
- 2) Print or save a copy of the "Weekly Reflection Working Document" to record all study activities for each module as you complete them.**
 - a. Weekly Reflections are submitted in Canvas at the end of each module. Prior to submission of the Weekly Reflection, students should use the "Weekly Reflection Working Document" to keep track of their study time as they complete each study

activity during the week. The information recorded on the working document should be used to fill out the Weekly Reflection survey at the end of the module.

- b. The Weekly Reflection is a brief assessment designed to help students develop and use metacognitive strategies to evaluate one's learning activities and use of study time. Additionally, the Weekly Reflection supplies ongoing, student feedback to the professor to enable timely content revision and/or supplementation instead of waiting until the end of the semester evaluation.
- c. To reduce the fear of evaluation and to increase honest feedback from students, credit for this assignment is included in each student's Class Participation grade. As such, the **grade is based only on participation and not on the specific answers provided**. To receive full credit, a student needs only to complete the entire form (i.e., type in a response for every blank except those labeled 'optional'). The specific times reported or ratings entered will not impact the grade. This grading scheme is intended to produce honest responses that will enable students to improve study time and will enable the professor to improve the course and its instructional materials.

3) 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 understand 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.
- 4) **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 only three links in addition to Aplia to aid in completing this course. The links are provided on the “Online Statistics Resources” tab on the left menu bar.
- 5) **Read/work through the assigned chapter(s) in the Gravetter, Wallnau, & Forzano 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 flipping through 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 flip 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 Aplia as explained below).
- 6) **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.
 - b. As you review the PowerPoint slides, pay special attention to the “Key Concept” identified in the set of slides outlining the chapters in each module. Students should

make note of the “Key Concept” when it is presented in the slides. Students must submit a short explanation of each “Key Concept” to the professor as an assignment in Canvas (see below) to receive credit for part of your class participation grade.

7) Write the Key Concept for each module.

- a. Each Key Concept is identified as such in the PPT slides that accompany each module. Students are to identify the Key Concept and write an explanatory paragraph about it. Each paragraph should be between 8-12 sentences, should be well-organized and should fully explain the concept.
- b. Key Concepts are submitted as an assignment in Canvas.

8) 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.

9) 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.

10) 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, log on to Aplia to complete your homework problems at <http://login.cengagebrain.com/>. This site delivers practice problems with explanations (optional) and assigned homework problems (required). For your homework problems, Aplia provides grading feedback and explanations for each problem at the deadline for the assignment. Immediate feedback is available for the practice problems in Aplia.

11) Write the Application Essays 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 the student's life and future work. Application Essays may require students to explain the connection between a statistical concept and a decision they must currently make, or review and integrate concepts across chapters in their own words. In addition, some essays 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 Application Essays. At the end of the semester, students will be expected to refer to their own essays 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 essays must be completed independently and written in a student's own words. Any evidence of collaboration or plagiarism will result in no credit for the assignment. The length of each essay will vary with the specific assignment.
- d. All essays should be written according to APA style and submitted in Canvas.

12) 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.

13) 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 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 school work 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.

14) 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.
- b. Links to Exams are available in Canvas.

15) Complete the Weekly Reflection.

- a. The information recorded on the “Weekly Reflection Working Document” should be submitted at the end of each module.
- b. Weekly Reflections are submitted in class as a link to Google Docs based on the working document students complete as they work through assignments during the week.

Course Assignments: Students are responsible for meeting the course requirements as scheduled for each module in the course calendar. **Assignments may not be submitted for credit after the due date.** Students who are excused from coursework due to medical issues or military training must provide a written excuse documenting the dates of the absence, which must coincide with the work to be made up, provided by physicians, military supervisors, or law enforcement officers. Written documentation of an excused absence must be provided immediately after the absence (or prior to the absence when possible), and students must arrange a plan with the professor to have all work made up based on the number of days indicated in the excuse.

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

Class Participation (8.1% of Overall Course Grade). Active online participation in diverse learning activities that are delivered throughout the learning process is expected in this course. Two activities are included in the sequence of instruction to achieve this objective and are included in students’ class participation grades.

Key Concept Explanation (6 points each, 9 assignments due). Students are expected to access, save/print, and take notes on the PowerPoint slides provided for each chapter. A “Key Concept” is identified in the PowerPoint slides for each module. Students are to make note of these “Key Concepts” as they come to them, write a brief explanation of the “Key Concept” in the **student’s own words** (quoting from the textbook will **not** receive credit), and submit the explanation of the concept to the professor each week as an assignment in class. The professor identified “Key Concepts” in each module that are critical for students to understand and labeled them in the PowerPoint slides. Writing a brief (8 to 12 sentence) explanatory paragraph on each concept will help students recognize and understand these “Key Concepts” as they progress through course content. The following rubric will be used to grade all “Key Concept” explanations.

Content:

Is the “Key Concept” accurately identified?

0 1

Is the “Key Concept” thoroughly explained?

0 1 2 3

Writing Standards:

Did student adhere to proper grammar, word usage, sentence form,

punctuation, and other elements of professional writing?

0 1 2

Weekly Reflection (3 points each, 9 assignments due). At the end of each module when students have finished all of the instructional activities assigned, students are expected to submit their Weekly Reflection. A student will receive full credit for the assignment if they complete the form in its entirety (i.e., do not leave any blank empty), regardless of the specific answers provided – within reason. Violations of ‘reasonable’ and ‘good faith’ efforts to complete the form honestly and in a professional manner will not receive credit even if all blanks are completed. For example, a student who submits all zeros for all responses though he/she did complete all module assignments is not completing the form as intended and will not receive any credit. By no means does this example exhaust all possible ways the form could be abused, but any suspected abuse of this activity will be investigated by checking the student usage data recorded by Canvas. Violations will not receive credit. A grading scheme that considers only class participation and not constructive critical feedback is meant to elicit honest, useful data to improve student learning and course activities. It is not meant to encourage sloppiness or hostility for ‘easy credit.’

Homework Problems (22.5% of Overall Course Grade) (15 points each, 15 assignments due).

The even-numbered problems at the end of each chapter will be assigned as homework problems through Aplia. All homework assignments 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 (20.0% 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 4) are intended to allow students to gain familiarity 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.

Application Essays (18.2% of Overall Course Grade) (14 points each, 13 assignments due). Each week students will write either one or two essays that require them to apply statistical concepts to their personal lives and future careers. Though the specific writing assignment will vary weekly, essays will be graded using one of the following grading rubrics.

APA Style Essays:

Variables: Are the variable(s) stated appropriately?

0 1

Statistical Test: Is the statistical test used clearly stated?

0 1

Error: Is the likelihood of a Type I error stated correctly?

0 1

Descriptive Statistics: Are the N , M , SD for all groups stated clearly?

0 1 2 3 4

Written Conclusion: Are the results of the test explained in terms of the variable(s)?

0 1 2 3 4 5

Statistics Supporting Conclusion: Are the results of the test presented correctly?

0 1 2

Personal Application Essays:

Supporting Research: Did student engage in sufficient and appropriate background research to support his/her personal application of concepts?

0 1 2 3 4

Content: Did student discuss every point requested in the instructions?

0 1 2 3 4 5

Writing Standards: Did student adhere to proper grammar, word usage, sentence form, punctuation, and other elements of professional writing?

0 1 2 3 4 5

Examinations (31.2% of Overall Course Grade). Four exams (60 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. Allow extra time during the week when exams are scheduled to take the exams. A comprehensive final examination will be given during final exam week (72 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 (Pass/Fail): Students in selected psychology courses (PSYC 3307, PSYC 3309, PSYC 3330, PSYC 3312, PSYC 4320) are required to engage in research experience activities as part of the course. The research experience activity includes either participating in research studies directly related to psychology, writing summaries of peer reviewed empirical research articles, or a combination of both.

Sign Up: To receive credit for a research experience activity, students must sign up to participate in a research study or write a research summary through the Counseling and Psychology Research Sign-Up System hosted by [SONA](https://tamuct.sona-systems.com) (<https://tamuct.sona-systems.com>).

Students will receive an email at their TAMUCT student email account from the SONA System Administrator [Melissa Sanchez](mailto:ms057@my.tamuct.edu) (ms057@my.tamuct.edu) when they have been registered to access the TAMUCT SONA system. Students must verify their account requests before being granted access to the system. Once the account is verified, students will be able to sign-up for research experience activities. A [tutorial video](https://www.youtube.com/watch?v=_1OnT2ZU6QQ) is provided for using SONA (https://www.youtube.com/watch?v=_1OnT2ZU6QQ).

Students who have problems signing up for SONA or have questions should contact the SONA System Administrator.

Credits: Students are required to complete 3 research experience credits in this course. The first research credit must be earned before the midterm of the course which is **July 2, 2018**. Credit is allotted as follows and is determined by the researcher (not the course instructor) based on estimated participation time:

- 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)
- 1 credit for each summary of a peer-reviewed, empirical research article.

Students who drop a class after having earned research experience credit cannot apply any accumulated credit from that class towards the next time they take the course; however, credits in SONA can be transferred from one course to another in the same semester.

Penalties: Any student who has not earned 1 research credit before the halfway point of the course (midterm) will be penalized 1 letter grade on the final course grade. Any student who has not earned all required research credits prior to the opening of the final exam period for the course will be penalized 1 letter grade on the final course grade for every research credit short of the required 3 research credits (e.g., missing 2 credits will result in a 2 letter grade reduction in the final course grade).

Grading Criteria Rubric and Conversion

Graded Assignments	# Due	Each	Total	Grade
Class Participation				
Key Concept Explanations	9	6	54	5.4
Weekly Reflections	9	3	27	2.7
Chapter Homework Problems	15	15	225	22.5
SPSS Assignments	10	20	200	20.0
Application Essays	13	14	182	18.2
Examinations				
Exam 1	1	60	60	6.0
Exam 2	1	60	60	6.0
Exam 3	1	60	60	6.0
Exam 4	1	60	60	6.0
Final Exam	1	72	<u>72</u>	<u>7.2</u>
			1000	100%

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., Class Participation assignments, Homework Problems, and SPSS Assignments) and by demonstrating their grasp of subject-matter content on written assignments (i.e., Application Essays and Key Concept explanations) 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.

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

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 Aplia grade book immediately after the assignment's due date has passed. Students are encouraged to independently verify their Homework grades in Aplia and ensure that the professor has transferred them into Canvas properly. On the SPSS and writing assignments (i.e., Key Concepts and Application Essays) 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

<u>Week</u>	<u>Module</u>	<u>Instructional Activities</u>	<u>Assignments Due</u>
Complete before the semester begins	Get Ready	Log on to Canvas Log on to Aplia Training Establish library access from home Create a quiet study environment Resolve all computer difficulties Find 2 'back-up' computers w/internet Introduce self in discussion forum	All assignments are due by 8:00am (CST) on Mondays.
June 4 (12:30am) through June 11 (8:00am)	Module 1: Introduction to Statistics & Frequency Distributions	Read G&W Chapters 1 and 2 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Unit 1 (Lessons 1 through 4) Write Application Essay(s) Complete Weekly Reflection	Key Concept Ch 1 Homework Problems Ch 2 Homework Problems Application Essay(s) Weekly Reflection
June 8 (12:30am) through June 18 (8:00am)	Module 2: Central Tendency & Variability	Read Chapters 3 and 4 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Unit 2 (Lessons 5 through 11) Write Application Essay(s) Complete Weekly Reflection	Key Concept Ch 3 Homework Problems Ch 4 Homework Problems Application Essay(s) Weekly Reflection
June 15 (12:30am) through June 25 (8:00am)	Module 3: z-Scores & Probability	Take Exam 1 (Chapters 1-4) Read Chapter 5 and 6 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Unit 3 and 4 (Lessons 12 through 18) Write Application Essay(s) Complete Weekly Reflection	Exam 1 (Chapters 1-4) Key Concept Ch 5 Homework Problems Ch 6 Homework Problems Application Essay(s) Weekly Reflection

<p>June 22 (12:30am) through July 2 (8:00am)</p> <p>At least 1 research experience credit is due in SONA by July 2.</p>	<p>Module 4: Probability and Samples & Hypothesis Testing</p>	<p>Read Chapters 7 and 8 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Lessons 19, 20, 21, and 22 Write Application Essay(s) Complete Weekly Reflection</p>	<p>Key Concept Ch 7 Homework Problems Ch 8 Homework Problems SPSS Frequency Analysis (Lesson 20) Application Essay(s) Weekly Reflection</p>
<p>June 29 (12:30am) through July 9 (8:00am)</p> <p>July 6 is Graduation Application Deadline for Ceremony Participation</p>	<p>Module 5: <i>t</i> Statistic & Independent Samples <i>t</i> Test</p>	<p>Take Exam 2 (Chapters 5-8) Read Chapters 9 and 10 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Lessons 24 and 23 Write Application Essay(s) Complete Weekly Reflection</p>	<p>Exam 2 (Chapters 5-8) Key Concept Ch 9 Homework Problems Ch10 Homework Problems SPSS One-Sample <i>t</i> Test (Lesson 22) SPSS Independent <i>t</i> Test (Lesson 24) Application Essay(s) Weekly Reflection</p>
<p>July 6 (12:30am) through July 16 (8:00am)</p>	<p>Module 6: Related Samples <i>t</i> Test & ANOVA</p>	<p>Read Chapters 11 and 12 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Lesson 25 Write Application Essay(s) Complete Weekly Reflection</p>	<p>Key Concept Ch11 Homework Problems Ch 12 Homework SPSS Paired <i>t</i> Test (Lesson 23) SPSS One-Way ANOVA (Lesson 25) Application Essay(s) Weekly Reflection</p>

July 13 (12:30am) through July 23 (8:00am)	Module 7: Repeated Measures ANOVA & Two-Factor ANOVA	Take Exam 3 (Chapters 9-12) Read Chapter 13 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Lesson 29 and Lesson 26 Write Application Essay(s) Complete Weekly Reflection	Exam 3 (Chapters 9-12) Key Concept Ch13 Homework Problems SPSS Repeated ANOVA (Lesson 29) SPSS Factorial ANOVA (Lesson 26) Application Essay(s) Weekly Reflection
July 20 (12:30am) through July 30 (8:00am)	Module 8: Correlation & Regression	Read Chapter 14 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Lessons 31, 33, and 19 Write Application Essay(s) Complete Weekly Reflection	Key Concept Ch14 Homework Problems SPSS Correlation (Lesson 31) SPSS Regression (Lesson 33) Application Essay(s) Weekly Reflection
July 27 (12:30am) through August 6 (8:00am) All 3 research experience credits are due in SONA by August 6.	Module 9: Chi-Square Statistic	Read Chapter 15 Take notes on PPT slides Watch instructional videos Participate in Study Hall/Office Hours Write Key Concept explanation Complete Homework Problems Read/Work G&S SPSS Lessons 39, 40, 41 Write Application Essay(s) Complete Weekly Reflection	Key Concept Ch15 Homework Problems SPSS Chi Square (Lesson 41) Application Essay(s) Weekly Reflection
August 6 (8:00am) through August 10 (11:59pm)	Final Exam	Take Exam 4 (Chapters 13-15) Take Comprehensive Final Exam (Chapters 1-15)	Exam 4 (Chapters 13-15) Final Exam

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. Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com>].

Username: Your MyCT username (xx123 or everything before the "@" in your MyCT e-mail 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.

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): [<http://hdc.tamu.edu>]

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Drop Policy

If you discover that you need to drop this class, you must complete a [Drop Request Form](https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf) [https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf].

Professors 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, signed and returned. Once you return the signed 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.

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. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student's academic performance and includes, but is not limited to, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student's work, collusion, and the abuse of resource materials. All academic misconduct concerns will be reported to the university's Office of Student Conduct. Ignorance of the university's standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

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 Department of Access 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 Department of Access and Inclusion at (254) 501-5831. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion](https://www.tamuct.edu/student-affairs/access-inclusion.html) web page [https://www.tamuct.edu/student-affairs/access-inclusion.html].

Texas A&M University-Central Texas supports students who are pregnant 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 the [Student Affairs](https://www.tamuct.edu/student-affairs/index.html) web page [https://www.tamuct.edu/student-affairs/index.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines online](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf), 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 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 on-campus and online. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or have any other question, contact Academic Support Programs at (254) 519-5796, or by emailing Dr. DeEadra Albert-Green at deeadra.albertgreen@tamuct.edu.

Chat live with a 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 FREE online tutoring and writing support. This tool provides tutoring in over 40 subject areas. Access Tutor.com through Canvas.

University Writing Center

Located in 416 Warrior Hall, the University Writing Center (UWC) at Texas A&M University-Central Texas is a free workspace open to all TAMUCT students from 10am-4pm Monday-Thursday during the summer with online hours available Monday-Thursday from 6:00-9:00pm. Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours

(both half-hour and hour sessions are available) or by making an appointment via [WOnline](https://tamuct.mywconline.com/) at [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu to schedule an online tutoring session. 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 University Writing Center is here to help!

If you have any questions about the University Writing Center, please do not hesitate to contact Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu.

University Library

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 85,000 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 on Skype or in-person at the library. 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](http://tamuct.libguides.com/index) [http://tamuct.libguides.com/index].

A Note about 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 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/departments/compliance/titleix.php) [https://www.tamuct.edu/departments/compliance/titleix.php].

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 (6th 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: No late work will be accepted. Due date extensions are offered only with a doctor's excuse or letter from the commander for military training that includes the dates missed. Students should make arrangements to reschedule appointments that will cause them to miss class. It is very difficult for students who miss class with a documented excuse to catch up. Students who miss class and do not provide a written excuse from a doctor or military commander will not be allowed to make up any work.

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" (<http://www.sacscoc.org/subchg/policy/CreditHours.pdf>). For a 3-credit hour class that is delivered fully online, students should spend at least **14 hours on coursework per week for a 10-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.
 - c. Use the Weekly Reflections to assist you in revising your study time as the semester progresses. This activity was created to teach students about their study habits. Review your responses across several Reflections during the semester to learn from them.
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. Extensions for coursework will **not** be granted. Find at least two "back-up" computers 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.