Texas A&M University – Central Texas
PSY 330-110: Statistics for the Behavioral Sciences
Fall 2017
Tuesday & Thursday, 9:30 am to 10:45 pm

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Office hours: Monday: 9:00 am - 12:30 pm
            Tuesday: 11:00 am - 12:30 pm
            Wednesday: 9:00 am - 12:30 pm
            Thursday: 11:00 am - 12:30 pm

UNILERT: UNILERT 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 and text message. By enrolling in UNILERT, university officials can quickly pass on safety-related information, regardless of your location. Please enroll today at http://TAMUCT.org/UNILERT

Required textbooks:
1) Gravetter, F.J., & Wallnau, L.B. (2012). *Statistics for the Behavioral Sciences*. Boston, MA: Pearson/Allyn & Bacon.   (ISBN: 987-0205-35867-0)

2) American Psychological Association. (2009). *Publication manual of the American psychological association* (6th ed.). Washington, DC: Author. (ISBN: 978-1-4338-0561-5)

Catalog course description:

Learning outcomes (LO): Upon satisfactory completion of this course, students will:

Course Objectives:
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, Chapter Quizzes (optional), 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.

Academic integrity and classroom conduct policy: Texas A&M University - Central Texas expects all students to maintain high standards of personal and scholarly conduct. Students found responsible for academic dishonesty are subject to disciplinary action. Academic dishonesty includes, but is not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. The faculty member is responsible for initiating action for each case of academic dishonesty. Any work determined to have been completed with other students or otherwise violating academic policies will be dealt with as academic dishonesty following TAMU-CT's policies, including reporting the instance to relevant authorities. More information can be found at www.ct.tamus.edu/StudentConduct.   Students are not allowed to use electronic devices in class except computers to take notes; those using computers will need to sit in the front row. Note that there are some assignments specifically designed to be done in collaboration with other students; this will be indicated in the assignment description. **All other work should be completely individually without help from other students.** If it's not clear to you which assignments allow you to work with others, be sure to check with the course instructor. For postings on the discussion board, please be respectful of the ideas and opinions of all class members; inappropriate language and interactions may lead to being blocked for the rest of the semester from the discussion area and the loss of related points. To get the most out of this class and all your classes, it's best to treat them like a job; come to class prepared each day and take responsibility for your own work. In general, if you respect other class members and your instructor, you should be fine.

Tutoring: Tutoring is available to all TAMU-CT students, both on-campus and online. Subjects tutored include: Accounting, Finance, Statistics, Mathematics, and Writing (APA). Tutors are available at the Tutoring Center in Founder's Hall, Room 204, and also in the Library in the North Building. Visit www.ct.tamus.edu/AcademicSupport and click "Tutoring Support" for tutor schedules and contact info. If you have questions or you're interested in becoming a tutor, contact Academic Support Programs at 254-501-5830 or by emailing gnichols@ct.tamus.edu.

Tutor.com is an online tutoring platform that enables TAMU-CT students to log-in and receive FREE online tutoring and writing support. This tool provides tutoring in Mathematics, Writing, Career Writing, Chemistry, Physics, Biology, Spanish, Calculus, and Statistics. Chat live on your computer with a tutor 24/7 about any tutoring subject. To access Tutor.com, go to www.tutor.com/tamuct.

On-campus writing help: The TAMU-CT Student Affairs Office oversees all on-campus tutoring assistance. For information about what help is available for writing, go to http://www.ct.tamus.edu/departments/academicsupport/tutoring-services.php.

Learning Evaluation Methods:

Assignments (30%): During every week that does not have a quiz, an assignment will be given over the material that is covered during that week (17 assignments total). These assignments will be completed on blackboard. The assignments will be due on the indicated date (see the schedule below) before class begins. It is recommended that students begin the assignments a few days before the due date so that they may be able to get help if needed. If a student makes a legitimate effort (as defined by the instructor) on an assignment and receives below a 70, the instructor may give the student the grade of a 70 for the effort.

Quizzes (60%): After completing 3-4 chapters of materials, students will take a quiz over what they have learned (5 quizzes total). These quizzes will have approximately 40-50 questions and will be comprised of both multiple choice and fill in the blank questions. Each quiz will require students to analyze data during the quiz. Students will use the computers in the classroom to analyze data and answer quiz questions.

Participation (10%): Although I would prefer not to give you a grade for participation, I have learned that requiring participation improves grades. Therefore, I am doing this for your benefit. This grade consists of the percentage of classes that you attend, assessed by an electronic system that will be explained in class. Students are responsible for notifying me of University approved absences before the day of class.

Final course grades will follow the system below:

A = 90.00+ total points, **B** = 80.00-89.99 points, **C** = 70.00-79.99 points, **D** = 62.00-69.99 points, **F** = 61.99 or fewer points

Research Experience Requirement (Pass/Fail): Students in selected psychology courses (i.e., PSY 307, PSY 309, PSY 330, PSY 412, PSY 420) are required to engage in research experience activities as part of the coursework. The research experience activity includes either participating in research studies directly related to psychology (i.e., projects sponsored by the Psychology & Counseling Department faculty) or reading and writing summaries of peer-reviewed, empirical research articles in psychology related to each course (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 Psychology and Counseling Research Sign-Up System hosted by SONA.

Students will receive an email from the research administrator with their username and password for logging into the sign-up system. When students receive this email, they should follow the link to **https://tamuct.sona-systems.com a**nd request an account using their TAMUCT email account. 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 (for additional information see https://www.youtube.com/watch?v=_1OnT2ZU6QQ).

If a student must cancel a scheduled appointment, s/he may do so via the "My Schedule/Credits" tab in the sign-up system. If the cancel option does not appear next to the study information, it is too late to cancel participation via the sign-up system, so students must contact the researcher directly via email. Students must include their identity code in all

correspondence with researchers. Students should be advised that late cancellation of an appointment may be counted as a no show. Researchers reserve the right not to accept late cancellations when sufficient time is not available to reschedule the cancelled slot. Students who accrue three (3) no-shows for research participation will be blocked from participating in research studies and must read and summarize peer-reviewed, empirical research articles to earn the remaining research experience credits.

Credits: Students are required to complete 3 research credits in this course. 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.

Any student who has not earned the required number credits prior to the opening of the final exam period for the course will receive an Incomplete (I) for the course. If the incomplete is not made up by the end of the following semester, it will automatically convert to an F. 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.

Technology Needs: For this course, you will need reliable and frequent access to a computer and to the Internet. This course will use the TAMU-CT Canvas learning management system for class communications, content distribution, and assignments.

Logon to http://tamuct.instructure.com to access the course.

You will use a unique Canvas username and password to access the course. You must have received a separate communication from the University giving your username and password information.

You will also need to utilize specialized software for statistical calculations. For the current course, we will be using SPSS. Using this software is required for this course, but purchasing for yourself is not required.

If you choose to download SPSS for yourself with a student discount, you need to make sure that you purchase the "Standard Grad Pack"(NOT THE "BASE grad pack") if you want the software to be able to complete all of the calculations required for this course. You may find a discounts for students at the websites listed on this page: http://www-03.ibm.com/software/products/en/spss-stats-gradpack

Technology Support: For technological or computer issues, students should contact the TAMU-CT Canvas Support group 24 hours a day, 7 days a week:

Support Portal (searchable database of answers and live chat with a support technician):
                              http://www.ct.tamus.edu/bbsupport
Phone: (855)-661-7965 or via online chat

Disability Support and Access: If you have or believe you have a disability and wish to self-identify, you can do so by providing documentation to the Disability Support Coordinator. Students are encouraged to seek information about accommodations to help assure success in their courses. Please contact Gail Johnson at (254) 519-5831 or visit Founder's Hall 114. Additional information can be found at www.ct.tamus.edu/AcademicSupport .

Drop policy: If you discover that you need to drop this class, you must go to the Records Office and ask for the necessary paperwork. Professors CANNOT drop students; this is always the responsibility of the student. The Records office will give a deadline for which the form must be returned, completely signed. Once you return the signed form to the Records office and wait 24 hours, you must go into the system and confirm that you are no longer enrolled. Should you still be enrolled, **FOLLOW UP** with the Records office immediately. You are to attend class until the procedure is complete to avoid penalties for absences. If you miss the deadline or fail to follow the procedure, you will receive an F in the course.

Library Services: *Information literacy* focuses on research skills which prepare individuals to live and work in an information-centered society. Librarians will work with students in the development of critical reasoning, ethical use of information, and the appropriate use of secondary research techniques. Help may include, yet is not limited to: exploration of information resources such as library collections and services, identification of subject databases and scholarly journals, and execution of effective search strategies. Library Resources are outlined and accessed at http://www.ct.tamus.edu/departments/library/index.php .

Please note that dates and other policies listed may be changed as needed and, if they are, changes will be announced in class and/or on the Announcements section of Canvas and may be noted on the calendar section of Canvas. **Students are responsible for being aware of ALL changes made**.

Tentative class topic list and due date schedule

Week	Date	Topic	Due
1	8/29	Syllabus/Introduction	
1	8/31	Chp. 1: Intro & Measurement Basics	
2	9/5	Chp. 2 Frequency Distributions	A.1
2	9/7	Chp. 3: Measures of Central Tendency	A.2
3	9/12	Chp. 4: Measures of Variability	
3	9/14	Unit 1 Review	A.3
4	9/19	Quiz 1	
4	9/21	Chp. 5: Z-scores & Probability	
5	9/26	Chp. 6: Probability & The Normal Curve	A.4
5	9/28	Chp. 6: Area Under the Curve	
6	10/3	Chp. 7: Sample distributions	A.5
6	10/5	Unit 2 Review	A.6
7	10/10	Quiz 2	
7	10/12	Chp. 8: Intro to Hypothesis Testing Part 1	
8	10/17	Chp. 8: Intro to Hypothesis Testing Part 2	
8	10/19	Chp. 9: Hypothesis testing & the t-statistic	A.7
9	10/24	Chp. 10: Independent Samples t-test	A.8
9	10/26	Chp. 11: Dependent Samples t-test	A.9
10	10/31	Chp. 9-11: Confidence Intervals & T-test Application	A.10
10	11/2	Unit 3 Review	
11	11/7	Quiz 3	
11	11/9	Chp. 12: Introduction to Analysis of Variance	
12	11/14	Chp. 13: Repeated Measures ANOVA	A.11
12	11/16	Chp. 14: Factorial ANOVA Part 1	A.12
13	11/21	Chp. 14: Online: Factorial ANOVA Part 2	A.13
14	11/28	Unit 4 Review	A.14
14	11/30	Quiz 4	
15	12/5	Chp. 15: The Correlation	
15	12/7	Chp. 16: Linear Regression	A.15
16	12/12	Chp. 17: Chi-Squared & Unit 5 Review	A.16
16	12/14	Quiz 5	A.17

Statistics in Behavioral Sciences