



HIED 617.01W Statistical Procedures for Education and Research

COURSE SYLLABUS: Spring 2024

INSTRUCTOR INFORMATION

Instructor: Dr. David Tolliver

Office Location: Binnion Hall 223

Office Hours: In-person or Virtual (by appointment)

Office Phone: 903-886-5617 (use email for faster response)

University Email Address: david.tolliver@tamuc.edu

Preferred Form of Communication: Email

Communication Response Time: Email is the best way to reach me as I check it daily. A reply will be sent within 48 hours (except on weekends and holidays), depending upon the time your message was received.

COURSE INFORMATION

Materials - Textbooks, Readings, Supplementary Readings

Textbook(s) Required:

- Statistics in plain English (5th ed.) Author: Timothy Urdan, ISBN: 978-0-367-34283-8
- How to Use SPSS: A step by step guide to analysis and interpretation Author: Brian Cronk, 11th edition, ISBN: 978-0367355692 * **Please make sure you purchase the right edition!**

Software Required:

- If the link doesn't open automatically, please copy and paste it directly onto your Web browser. SPSS Statistical Software (version 18.0 or higher is recommended). You can purchase and download a copy from <http://www.onthehub.com/spss/>. **Be sure to select the Statistics Standard Grad Pack (NOT the Base Grad Pack!).** You can obtain a 6- or 12-month license. You can also purchase a copy from <http://studentdiscounts.com> (can be installed on two computers).

- Note: SPSS Statistical Software is also on computers in the student lab at the Metroplex and various labs on the Commerce campus.

Course Description

This course is intended to provide graduate students with an introduction to statistics; it is approved by the Graduate School as a Level II research tool (3 semester hours). The emphasis will be on understanding statistical concepts and applying and interpreting tests of statistical inference. Content will include but not be limited to: data and data files, data screening, scaling, visual representations of data, descriptive statistics, correlation and simple regression, sampling distributions, and the assumptions associated with and the application of selected inferential statistical procedures (including t-tests, Chi-square, and one-way ANOVA). Computer software (SPSS) will be employed to assist in the analysis of data for this course. Students should have access to a computer, SPSS software, and the Internet. This access is available at the Metroplex Center and on the Commerce campus in certain computer labs.

Student Learning Outcomes

Develop and demonstrate an understanding of:

- How interesting and applicable statistics can be
- How and why statistics has developed as a tool of the scientific process
- Collecting data and quantifying observations in the scientific, research process
- Representing and storing observations in a data file; structuring a data file
- The uses and limitations of statistical software
- The scaling and coding of data
- Frequency distributions; representing data visually; the strengths and weaknesses visual representations
- Methods of appropriately describing the central tendencies of various distributions
- Variability and quantifying variability
- The reasoning and assumptions underlying inferential statistics
- Probability in inferential statistics
- Correlation and simple linear regression
- The appropriate application and interpretation of various inferential statistical procedures, including t-tests, Chi-square tests, inferential tests applied to correlation, and basic ANOVA
- Writing a simple description of methodology and results from analyses
- Identifying weaknesses in methodology and results of research proposals

COURSE REQUIREMENT

This is a fully online course. Assignments will be delivered via the D2L learning media platform. Knowledge of the substantive material covered in the course is of central importance. Grading will include consideration of content as well as grammar, spelling, organization, and explicit use of readings. A serious commitment to mastery of the content and contribution to everyone's learning is expected. An online course inherently

requires students to be active, reflective, and contributive learners.

Assigned readings are noted within the module overview as well as on the course schedule. Required module readings will serve as a basis for online discussion. Late submissions, one week past the due date **WILL NOT** be accepted, and **each day late will incur 10% score deduction**. I do understand that at times there are circumstances outside one's control that may impact timely submission of assignments, such as jury duty, hospitalization, or death of a family member. In these instances, a student is expected to notify the instructor **BEFORE** the assignment deadline.

GRADING

Biography (10 points)

Post a brief biography and share what you hope to learn from this course.

Discussion Boards (6 at 20 points each = 120 points total):

Each discussion thread topic will require a "post" and two "replies" to fellow classmate's posts.

Initial Post (80%): Module discussion is to verify your understanding of readings and applying learning to your own research. You will not be able to read other's post until you post your own work. Students will need to complete an initial "post" to each discussion board thread at least four days before the module end date. Review "post" content for correct grammar and spelling.

Replies (20%): The sharing of feedback with your classmates is expected to strengthen the application of module learning to your (dissertation) research. Review "reply" content for correct grammar and spelling. It is suggested that each reply consist of a minimum of four to five complete sentences.

SPSS Work (6 at 20 points each = 120 total points):

Learning how to analyze, interpret, and write up your quantitative data using SPSS is important. Each module has SPSS practice exercises from Cronk's book: How to use SPSS. You will submit SPSS files, which also include your answers to instructor-added questions to the Module DropBox.

Research Application (40 points):

Selected module discussions will include questions that ask, how you can/apply learned design or analyses to your potential dissertation research (I teach qualitative research course as well, and in that course, students who are considering qualitative research as their dissertation design still need to answer how course learning will apply to their future qualitative study). During the last module, you can revisit previous module discussions, refine them, and create a 3~5 pages (double spaced) paper listing potential research questions (or hypotheses) and describing how they will capture and analyze the data.

Course Reflection (10 points)

American Psychological Association (APA) 6th edition formatting is required for all writing assignments.

The syllabus/schedule are subject to change.

Grading	<i>* Scoring scheme is subject to change</i>
Sharing Biography	10 points
Class Discussion	120 points (20 x 6)
SPSS Exercises	120 points (20 x 6)
Research Application	40 points
Course Reflection	10 points
Total	300 points (A > 90%, B > 80%, C > 70%)

*Please remember, no grade below a "B" may be applied to a doctoral degree.

TECHNOLOGY REQUIREMENTS

LMS

Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

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Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	<p>The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version.</p> <p>Chrome: Latest version for the iOS browser.</p>
Windows	Windows 10	Edge, Chrome, Firefox	

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- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
 - o 512 MB of RAM, 1 GB or more preferred
 - o Broadband connection required courses are heavily video intensive
 - o Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
 - o Sound card, which is usually integrated into your desktop or laptop computer
 - o Speakers or headphones.
 - o *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site <http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
 - o Adobe Reader <https://get.adobe.com/reader/>
 - o Adobe Flash Player (version 17 or later) <https://get.adobe.com/flashplayer/>
 - o Adobe Shockwave Player <https://get.adobe.com/shockwave/>
 - o Apple Quick Time <http://www.apple.com/quicktime/download/>

At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

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ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems: do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

Brightspace Support

Need Help?

Student Support

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words "click here" to submit an issue via email.

System Maintenance

Please note that on the 4th Sunday of each month there will be System Maintenance which means the system will not be available 12 pm - 6 am CST.

Interaction with Instructor Statement

Email in the best way to contact the instructor. Course shells also provides a way to share content related questions and help needs through multiple discussion forums. If the instructor cannot be reached during office hours and talking over the phone is helpful, leaving a voice mail or emailing the instructor leaving the best date, time, and phone number to reach will be most effective.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

For any written assignment (e.g., discussion, assignment, and project), I try to provide timely and quality feedback no later than within a week, usually faster. If an unusual

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delay should occur, such as illness or a conference travel, instructor availability and expected timeline/response will be shared as course announcement in the course shell. See the course requirement section for late submission policy. If work is submitted past the due date, no qualitative feedback is guaranteed, and work very late may be graded together with the next assignment. If work is submitted past due, the student must email the instructor explaining the reason for late submission. The course has no extra-credit assignment.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as).

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Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette](http://www.albion.com/netiquette/corerules.html)

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx) webpage and [Procedure 13.99.99.R0.01](http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

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Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

Academic Integrity

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[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)
[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

AI use policy [Draft 2, May 25, 2023]

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

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ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas concealed carry handgun license. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.03'5 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

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Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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