EDCI 699 Statistics: Content, Process, Application
COURSE SYLLABUS: Spring 2019

INSTRUCTOR INFORMATION

Instructor: Dr. Karyn Miller, Ph.D
Office Hours: I will be available before and after class and by appointment.
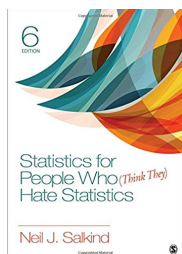**University Email Address:** Karyn.Miller@tamuc.edu
Preferred Form of Communication: Email
Communication Response Time: 48 hours maximum (Monday-Friday)

COURSE INFORMATION

Materials – Textbook

Salkind, N. (2017) *Statistics for People Who (Think They) Hate Statistics* (6th edition). Sage Publications, ISBN-13: 978-1506333830.

Software

SPSS Computer Package. SPSS Statistical software (version 19.0 or higher are recommended). Be sure that you choose the Statistics Standard Grad Pack, not the Base Grad Pack. You can get a 6 month or 12 month license. The software is also on the computers in the student lab at the Metroplex.

Other Materials
Calculator (a basic calculator with a square root function will suffice, most smart phones have this tool)

The *syllabus/schedule are subject to change.*

Course Description

This course is intended to provide graduate students with an introduction to statistics and is approved by the Graduate School as a Level II research tool. The emphasis in this course will be upon 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.

This is a hybrid course. As stated in the schedule of courses, we will meet every other Thursday, starting on February 7, 2020. Lectures, reading, and student practice will take place outside of class, prior to each lab session. We will use our meeting time to practice applying concepts to real-world questions using the statistical software program SPSS. Therefore, students are expected to come to each lab session prepared, having reviewed the lecture, read the required textbook chapters, and with their practice set in hand.

On the first lab meeting, February 7, we will meet at 4:30pm and set the lab meeting times for the remainder of the semester.

Student Learning Outcomes

By the end of this course, students will be able to:
1. Describe and explain basic statistical concepts such as probability distribution, hypothesis testing, statistical significance, and how data collection affects inference.
2. Formulate and test hypotheses using statistical models
3. Apply appropriate statistical methods to real world research questions
4. Read and interpret results from quantitative research studies
5. Understand how to work out statistical problems by hand and by using computer software (SPSS)

COURSE REQUIREMENTS

Minimal Technical Skills Needed

This is not an Online Course but some technological resources will be required.

Access to a Computer with:
- Internet Access
- Microsoft Word Processing Software
- Microsoft Power Point Software

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- Adobe or Foxit Reader to open PDF File
- SPSS

Instructional Methods

This course will meet at the Metroplex every other Thursday and will include a combination of lecture, application, and lab.

Student Responsibilities or Tips for Success in the Course

Students are responsible for engaging in their own learning. This includes coming to class prepared, having completed any assigned reading and/or assignments ahead of time, checking class emails, asking questions to clarify understanding, and actively participating in labs and practice during class periods. Regular attendance is necessary and expected of all students.

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

Assessments

The course grade will be determined by the following combination of criteria:

- **Practice Sets**: A written assignment will be assigned for every class session. It may consist of problems from the text or running and interpreting some form of data. Completing each practice set is very important to success in this class because it gives you an opportunity for practice and application. It is expected that mistakes will occur in practice; therefore, incorrect (not incomplete or partially complete) answers on homework problems will not result in a significant penalty. Practice sets will count for 50% of the course grade.
- **Mid-term Exam**: Will be cumulative to that point, open book and notes, and will count for 25% of the course grade.
- **Final Exam**: Will be cumulative, open book and notes, and will count for 25% of the course grade.

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TECHNOLOGY REQUIREMENTS

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.

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

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Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
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	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, D2Lsupports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
    - 512 MB of RAM, 1 GB or more preferred
    - Broadband connection required courses are heavily video intensive
    - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

- You must have a:
    - Sound card, which is usually integrated into your desktop or laptop computer
    - Speakers or headphones.
    - *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

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- 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:
  - Adobe Reader https://get.adobe.com/reader/
  - Adobe Flash Player *(version 17 or later)* https://get.adobe.com/flashplayer/
  - Adobe Shockwave Player   https://get.adobe.com/shockwave/
  - 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.

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, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

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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.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance and Late Work: Students are expected to attend all classes, arrive on time, and remain until class is dismissed. When students miss a class due to a professional responsibility or unforeseen excused absence, students are responsible for contacting the instructor via phone or email ahead of the missed class. Plans to make-up the work must be discussed with the instructor before the missed class. Late work will not be accepted in the case of an unexcused absence. For a definition of an excused absence, please see the Texas A&M University-Commerce Catalog or Student's Guidebook.

Cell Phones/Computers: Please respect the instructor and your peers by turning off your cell phones and other technical devices during lectures, unless you have notified me at the beginning of class that you have a critical family situation about which you must be notified. This should constitute only emergencies.

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.

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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.aspx).
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

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)
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/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf).
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

[Graduate Student Academic Dishonesty 13.99.99.R0.10](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf)

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

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

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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/

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 License to Carry a Handgun. 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) 46.035 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.

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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COURSE OUTLINE / CALENDAR

Date	Topic	Readings	Assignments Due
January 30	Introduction to statistics	Chapter 1	
February 6	Lab: Introduction to SPSS	Appendix A	Practice set #1
February 13	Descriptive statistics: Measures of central tendency and dispersion	Chapters 2-4	
February 20	Lab: Measures of central tendency and dispersion		Practice set #2
February 27	Descriptive statistics: Correlation	Chapters 5 & 6	
March 3	Lab: Data visualization and correlation		Practice set #3
March 12	Introduction to hypothesis testing (Spring break)	Chapters 7 & 8	
March 19	Lab: Probability		Midterm Due
March 26	Inferential statistics: statistical significance and the one-sample z test	Chapters 9 & 10	
April 2	Lab: Z test		Practice set #4
April 9	T-tests for independent and dependent means	Chapters 11 & 12	
April 16	Lab: t-tests		Practice set #5
April 23	ANOVA & Correlation coefficient	Chapters 13 & 15	
April 30	Lab: ANOVA & Correlation coefficient		Practice set #6
May 7			Final Exam Due

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