Please, click on the following link to access A&M-Commerce Covid 19 Information, https://new.tamuc.edu/coronavirus/

EDAD 603 01W Introduction to Graduate Statistics

COURSE SYLLABUS: SUMMER 2022

INSTRUCTOR INFORMATION

Instructor: Dr. Mei Jiang, Assistant Professor
Office Location: Education North 123
Office Hours: Tuesday 10am-1pm and by appointment
Office Phone: 903-886-5521; 214-797-7192 (cell)
Office Fax: 903-886-5507
University Email Address: mei.jiang@tamuc.edu
Preferred Form of Communication: Email
Communication Response Time: Normally 24 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

Field, A. (2017). Discovering Statistics Using IBM SPSS Statistics (5th ed.). Sage.
ISBN # 978-1526436566

Morgan,G., Barrett, K., Leech, N., & Gloeckner, G. (2019). IBM SPSS for Introductory Statistics: Use and Interpretation (6th ed.). Taylor & Francis.
ISBN-13: 978-1138578210

Leech, N., Barrett, K., & Morgan, G. (2015) IBM SPSS for Intermediate Statistics: Use and Interpretation (5th ed.). Taylor & Francis.
SBN-13: 978-1848729995

The *syllabus/schedule are subject to change.*

Software Required

SPSS Statistical software (version 17.0 or higher are recommended). You can purchase and download a copy from http://www.onthehub.com/spss/. You can also get a copy from http://studentdiscounts.com (can be installed on two computers). One last place where SPSS can be purchased is Hearne Software: http://www.hearne.software/Software/SPSS. Be sure that you choose the **Statistics Standard 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 and various labs on the Commerce campus.
Note: If you plan to take CED 611 next semester, you might want to get the 12 month license, but if you do that, you will need to get the **Statistics PREMIUM Grad Pack**.

Optional Texts and/or Materials

SPSS Survival Manual (6th edition). By Julie Pallant, McGraw Hill Education. ISBN -13: 978-0-33-526154-3

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, 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.

Student Learning Outcomes

- Demonstrate understanding of statistics as being a tool of the scientific process in quantitative research
- Describe and explain basic statistical concepts including probability distribution, hypothesis testing, statistical significance, and how data collection affects inference
- Generate descriptive statistics of data, describe how data can be interpreted and represented visually, and recognize the strengths and weaknesses of these representations
- Describe and explain data in measurement scales during the scientific and research process
- Formulate real-world research questions and hypotheses in varied statistical models

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- Choose and apply appropriate statistical tests to address real-world research questions.
- Understand the reasoning and assumptions underlying the inferential statistical process
- Conduct statistical tests in the statistical software (SPSS), including correlation, simple regression, independent samples t-test, dependent samples t-test, and Chi-Square.
- Read and interpret results of the statistical test output and write up the results

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Be able to use

- the learning management system
- Microsoft Word, Excel, and PowerPoint
- Windows system or Mac system.

Instructional Methods

This course materials will be presented in Modules. In each Module, you'll be learning through PPTs in Module Materials. Self-assessments and assignments will be used in each Module to assess learning outcomes.

Student Responsibilities or Tips for Success in the Course

- Join QA session if you can; listening to QA recording if absent. – **Very important!**
- Review the Module Materials each week.
- Ask questions as early as you can! – The most important!

Please feel free to contact me any time you have questions. I make a rule for myself, and I would like for you to follow it also, that if I spend an hour on something, and really give it my all, but I still can't get it, it's time to ask for help. Don't be afraid to ask for help! Don't just sit there getting frustrated!

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

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

- **Written Assignment**: An assignment will be assigned for each class Module. It will consist of running a particular type of statistical test based upon the data provided to address a research question. data. Completing or attempting the homework is very important to success in this class because it gives you an opportunity for practice and application. Due to the nature of data analysis, it is expected that there is no one and only correct answer. Variations, including partially incorrect or partially complete answer may occur in practice. It is important to present a complete and solid data analysis. Deductions will be made for poorly organized and labeled assignments or incomplete responses. Homework will count 50% of the course grade. 10% for each assignment.
- **Quizzes**: Will be assigned each session and will cover homework, readings, and lectures. You will most likely be asked to interpret and answer some questions regarding an SPSS printout, as well as other content related questions. Quizzes will count 30% of the course grade.
- **Final Exam**: Will be cumulative, open book and notes, and will count for 20% of the course grade.

Assessments

Modules	Learning Outcomes
Module 1: Welcome to Statistics: Why Statistics?	• How interesting and fun statistics can be • How and why statistics has developed as a tool of the scientific process • How data are collected and how observations are quantified during the scientific and research
Module 2: SPSS and Descriptive Data	• How observations are represented and stored in a data file • The uses and limitations of statistical software • The scaling and coding of data • Frequency distributions; how data can be represented visually, and the strengths and weaknesses of these representations • Methods of appropriately describing the central tendencies of various distributions
Module 3: Correlation and Regression	• The reasoning and assumptions underlying the inferential statistical process • Probability, as it refers to inferential statistics • Correlation and simple linear regression

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Module 4: Independent and dependent samples t tests	• The reasoning and assumptions underlying the inferential statistical process • The appropriate application and interpretation of various inferential statistical procedures, including the t-test, the Chi-square test,
Module 5: ANOVA and Post Hoc tests	• The reasoning and assumptions underlying the inferential statistical process • The appropriate application and interpretation of various inferential statistical procedures, including the t-test, the Chi-square test, inferential tests applied to correlation, and basic ANOVA
Module 6: Chi-square Review for Final	• The reasoning and assumptions underlying the inferential statistical process • The appropriate application and interpretation of various inferential statistical procedures, including the t-test, the Chi-square test, inferential tests applied to correlation, and basic ANOVA

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

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.

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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.

COMMUNICATION AND 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. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

The instructor's response time on email is normally within 24 hours. However, it may take up to 72 hours during weekends. The instructor's feedback on assessments are normally within 72 hours.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

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.aspx

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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:
https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
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
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

Students with Disabilities-- ADA Statement

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
Velma K. Waters Library Rm 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148

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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.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit **www.tamuc.edu/counsel**

TENTATIVE COURSE OUTLINE / CALENDAR

Week	Modules	Topics	Quiz Due Date	Assignment Due Date
1	06/06-06/19	Module 1: Welcome to Statistics: Why Statistics?	June 12	
2				June 19
3	06/20-07/03	Module 2: SPSS and Descriptive Data	June 26	
4				July 03
5	07/04-07/17	Module 3: Correlation and Regression	July 10	
6				July 17
7	07/18-07/31	Module 4: Independent and dependent samples t tests	July 24	
8		Module 5: ANOVA and Post Hoc tests		July 31
9	08/01-08/07	Module 6: Chi-square Review for Final		August 7
10	08/08-08/11	Final Exam		

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