EDAD 604 Intermediate Graduate Statistics
COURSE SYLLABUS: SPRING 2020

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)
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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

Discovering Statistics Using IBM SPSS Statistics (4th edition) by Andy Field, Sage Publications,
     ISBN # 978-1-4462-4918-5

IBM SPSS for Introductory Statistics: Use and Interpretation (5th Edition) by George Morgan, Nancy Leech, Gene Gloeckner, and Karen Barrett. Taylor & Francis
     ISBN-13: 978-1848729827

IBM SPSS for Intermediate Statistics: Use and Interpretation (5th Edition) by Nancy Leech, Karen Barrett, and George Morgan, Taylor & Francis
     SBN-13: 978-1848729995

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/.

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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 intermediate level 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: the application of multiple regression, factorial ANOVA, repeated measures, mixed design, reliability, and other advanced procedures. More importantly, you'll learn how to make decision about your data and decide what statistical test to use. Students should have access to a computer, SPSS software, and the Internet. 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

☐   How interesting and fun statistics can be
☐   The uses and limitations of statistical software
☐   The reasoning and assumptions underlying the inferential statistical process
☐   Exploratory data analysis to explore assumptions
☐   Reliability, particularly as it applies to surveys
☐   Multiple regression
☐   Analysis of variance (ANOVA)
☐   Factorial ANOVA, including post hoc and multiple comparisons
☐   The appropriate application and interpretation of inferential tests applied to ANOVA and multiple regression
☐   How to write a simple description of methodology and results from analyses

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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

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

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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: Review	How interesting and fun statistics can be The uses and limitations of statistical software The reasoning and assumptions underlying the inferential statistical process
Module 2: Multiple Regression	Exploratory data analysis to explore assumptions Multiple regression The appropriate application and interpretation of inferential tests applied to ANOVA and multiple regression How to write a simple description of methodology and results from analyses
Module 3: Factorial ANOVA	Exploratory data analysis to explore assumptions Analysis of variance (ANOVA) Factorial ANOVA, including post hoc and

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Module 4: Repeated Measures ANOVA and Mixed Design	Exploratory data analysis to explore assumptions The appropriate application and interpretation of inferential tests applied to ANOVA and multiple regression
Module 5: Reliability	Exploratory data analysis to explore assumptions Reliability, particularly as it applies to surveys How to write a simple description of methodology and results from analyses
Module 6: Decision Tree	How interesting and fun statistics can be The uses and limitations of statistical software The reasoning and assumptions underlying the inferential statistical process Exploratory data analysis to explore assumptions Reliability, particularly as it applies to surveys Multiple regression Analysis of variance (ANOVA) Factorial ANOVA, including post hoc and multiple comparisons The appropriate application and interpretation of inferential tests applied to ANOVA and multiple regression How to write a simple description of methodology and results from analyses

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

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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
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

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Device	Operating System	Browser	Supported Browser Version(s)
			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.

- 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:

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- 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.

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.

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System Maintenance

D2L runs monthly updates during the last week of the month, usually on Wednesday. The system should remain up during this time unless otherwise specified in an announcement. You may experience minimal impacts to performance and/or look and feel of the environment.

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

Attendance/Lateness, Late Work, Missed Exams and Quizzes and Extra Credit

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

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 webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

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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

Graduate Student Academic Dishonesty 13.99.99.R0.10

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 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.

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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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TENTATIVE COURSE OUTLINE / CALENDAR

Week	Modules	Topics	Quiz Due Date	Assignment Due Date
1	01/30-02/09	Module 1: Review	02/05	
2				02/09
3	02/10-02/23	Module 2: Multiple Regression	02/16	
4				02/23
5	02/24-03/08	Module 3: Factorial ANOVA	03/01	
6				03/08
7	03/09-03/15	Spring Break		
8	03/16-04/05	Module 4: Repeated Measures ANOVA and Mixed Design		
9			03/29	
10				04/05
11	04/06-04/19	Module 5: Reliability	04/12	
12				04/19
13	04/20-04/26	Module 6: Decision Tree		
14	04/27-05/03	Review for Final		
15	05/04-05/08	Final Exam	05/08 due	

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