2018 SPRING SYLLABUS PSY 5321: Multivariate Statistics Monday, 12:30 pm - 1:50 pm, UAC206 Wednesday, 12:30 pm -1:50 pm, UAC342

Instructor Information

Dr. Yueqin Jean Hu, PhD. Office: UAC 266, Phone: 512-245-7347 Email: yjh4@txstate.edu Office hours: M&W 9:00 am – 11:00 am

Course Description

Multivariate Statistics is a 3 credit graduate course that introduces advanced statistical analyses commonly used in psychology and other behavioral science. Topics include multivariate analysis of variance and covariance, Path Analysis, Test Theory, Factor Analysis, and Structural Equation Modeling. This course is required for all first year psychology graduate students. No prerequisite is required.

Class Structure

Instruction will consist of face-to-face lectures and hands-on practice using a computerized data analysis program (SPSS) in the computer lab.

Assessment and Grading

Assessment will occur through attendance, weekly homework exercises, and four exams given during the semester.

Attendance	10%
Homework	30%
Quiz	10%
Midterm	20%
Final Exam	30%

Textbook

Rebecca M. Warner. Applied Statistics: From Bivariate Through Multivariate Techniques. 2nd Edition. ISBN-13: 978-1412991346 ISBN-10: 141299134X

Academic Honesty

Examples of academic dishonesty include cheating on a test, collusion to evade academic rules, and plagiarism—i.e., turning in work that is in any way not your own. Any cases of academic dishonesty will result in a failing grade for the course

and will lead to additional disciplinary actions. Please refer to the University Honor Code Page for details: <u>http://www.txstate.edu/effective/upps/upps-07-10-01.html</u>. Please also see the following link for the University Honor Code: <u>http://www.txstate.edu/effective/upps/upps-07-10-01-att1.html</u>.

Special Needs

Students who require accommodations for the completion of this course must notify the Office of Disability Services and the instructor in the first week of the semester.

Learning Outcomes

The Department of Psychology has adopted expected student learning outcomes for the undergraduate major, the graduate major, and for PSY 1300, a general education course meeting a requirement for the social and behavioral science component. These expected student learning outcomes are available for your review at the following website: <u>http://www.psych.txstate.edu/assessment/</u>.

Course Schedule

Date	Торіс	Materials	Events
Jan. 17	Course Introduction	Lecture note	HW 1
Jan. 22	MANOVA	Lecture note & Chap19	HW 2
Jan. 24	Lab	Lab note	
Jan. 29	MANCOVA	Lecture note & Chap17	HW 3
Jan. 31	Lab	Lab note	
Feb. 05	Repeated Measures	Lecture note & Chap22	Quiz 1
Feb. 07	Lab	Lab note	
Feb. 12	Discriminant Analysis	Lecture note & Chap18	HW4
Feb. 14	Lab	Lab note	
Feb. 19	Path Analysis	Lecture note& Chap16	HW 5
Feb. 21	Lab	Lab note	
Feb. 26	Path Analysis: Mediation	Lecture note& Chap16	HW 6
Feb. 28	Lab	Lab note	
Mar. 05 Mar. 07	Review Midterm Exam	Lecture note	Exam

Mar. 19Test Theory: ReliabilityLecture note & Chap21Mar. 21LabLab note	HW 7
Mar. 26Test Theory: ValidityLecture note & Chap21Mar. 28LabLab note	HW 8
Apr. 02Exploratory Factor AnalysisLecture note & Chap20Apr. 04LabLab note	HW 9
Apr. 09Confirmatory Factor AnalysisLecture note & Chap20Apr. 11LabLab note	HW 10
Apr. 16Introduction to SEMLecture noteApr. 18LabLab note	
Apr. 23ReviewApr. 25Lab	
Apr. 30Reading DayMay. 02Final Exam	Exam