2020 SPRING SYLLABUS

PSY 5321: Multivariate Statistics

Monday, 9:00 am - 10:20 am, UAC205

Wednesday, 9:00 am -10:20 am, UAC440

**Instructor Information**

Dr. Yueqin Jean Hu, PhD.

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Office hours: M&W 1:00 pm – 4:00 pm

**Course Description**

Multivariate Statistics is a 3 credits 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: <http://www.txstate.edu/effective/upps/upps-07-10-01.html>.

**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: <http://www.psych.txstate.edu/assessment/>.

**Course Schedule**

Date Topic Materials Events

Jan. 22 Course Introduction Lecture note HW 1

Jan. 27 MANOVA Lecture note & Chap19

Jan. 29 Lab Lab note HW 2

Feb. 03 MANCOVA Lecture note & Chap17

Feb. 05 Lab Lab note HW 3

Feb. 10 Repeated Measures Lecture note & Chap22

Feb. 12 Lab and Quiz Lab note Quiz

Feb. 17 Discriminant Analysis Lecture note & Chap18

Feb. 19 Lab Lab note HW4

Feb. 24 Path Analysis Lecture note& Chap16

Feb. 26 Lab Lab note HW 5

Mar. 02 Path Analysis: Mediation Lecture note& Chap16

Mar. 04 Lab Lab note HW 6

Mar. 09 Review Lecture note

Mar. 11 Midterm Exam Exam

Mar. 16 Spring Break

Mar. 18 Spring Break

Mar. 23 Test Theory: Reliability Lecture note & Chap21

Mar. 25 Lab Lab note HW 7

Mar. 30 Test Theory: Validity Lecture note & Chap21

Apr. 01 Lab Lab note HW 8

Apr. 06 Exploratory Factor Analysis Lecture note & Chap20

Apr. 08 Lab Lab note HW 9

Apr. 13 Confirmatory Factor Analysis Lecture note & Chap20

Apr. 15 Lab Lab note HW 10

Apr. 20 Introduction to SEM Lecture note

Apr. 22 Lab Lab note

Apr. 27 Review

Apr. 29 Lab

May. 04 Quiz (Final Part 1) Quiz

May. 08 Final Exam Data Project (Final Part 2) Report