PSYC 6341

Multivariate Statistics

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BEP 254

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Requided Texts:

Using R With Multivariate Statistics 1st Edition by Randall E. Schumacker
ISBN-13: 978-1483377964 ISBN-10: 1483377962

R for Data Science by Garrett Grolemund and Hadley Wickham `https://r4ds.had.co.nz/`

I will also provide other publicly available texts via Canvas.

Course Catalog Description

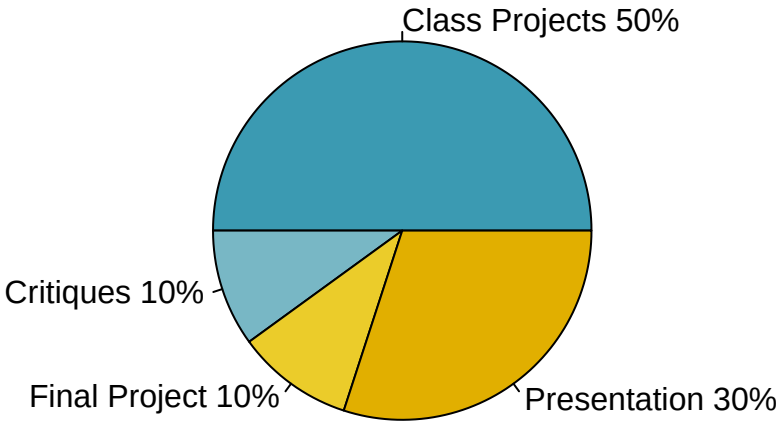
Includes study and application of complex multivariate research designs and multivariate statistical analyses including MANOVA/MANCOVA, discriminant function analysis, canonical analysis, structural equation modeling and factor analysis

Required Prerequisites: PSYC 6341

Student Learning Outcomes: As a result of this course, successful students will be able to:

–Identify and articulate the theoretical underpinnings of multivariate statistical models and designs.
–Articulate advanced principles of multivariate statistical analyses, including multivariate distributions, hypotheses and analytic methods
–Accurately choose and conduct multivariate statistical data analyses, using R statistical software, emphasizing the assumptions, appropriate uses, and the interpretation of each
–Write about the results of multivariate statistical analyses in journal format
–Design multivariate research studies for use with clinical populations

Grade Distribution



Grading Scale

A=90% +, B=80%-89%, C=70%-79%, D= 60%-69%, F = less than 60%

Topical Outline

Introduction & Matrix Algebra
Multivariate Statistics Assumptions
Hotelling's T2: A Two-Group Multivariate Analysis
Multivariate Analysis of Variance
Multivariate Analysis of Covariance
Multivariate Repeated Measures
Discriminant Analysis
Canonical Correlation
Exploratory Factor Analysis
Hierarchical Linear Modeling
Structural Equation Modeling

Class Schedule

The class and assignment schedule can be found in Canvas.

University Policies

You can read the university policies here: `https://www.uttyler.edu/links/`