- https://jill-jacobson.setmore.com

If none of those times work, you don't need to send a separate email asking if we can meet. Just send me some days/times when you are free (including any evening or weekend times if you are open to meeting outside of typical business hours), and I will set up a meeting for a mutually agreeable time.

Course Purpose

The primary purpose of this course is to introduce you to latent variable model analyses. You will be expanding on the knowledge you gained in PSYC 802 (or equivalent course) to more advanced statistical techniques. You also will be developing marketable skills in programming and conducting statistical tests in R and translating statistical results into understandable language.

Intended Student Learning Outcomes

By the end of this course, you will be able to:

Explain the key procedural steps in the implementation of exploratory factor and composite analysis, confirmatory factor and composite analysis, and structural equation modeling.

Implement the procedures and interpret the results of exploratory factor and composite analysis, confirmatory factor and composite analysis, and structural equation modeling.

Communicate the results of exploratory factor and composite analysis, confirmatory factor and composite analysis, and structural equation modeling adhering to the guidelines of the field.

Course Materials

Copyright of Course Material

Course materials created by the course instructor, Jill A. Jacobson, including all slides, presentations, handouts, tests, exams, and other similar course materials, are the intellectual property of the instructor. It is a departure from academic integrity

consent. A student who engages in such conduct may be subject to penalty for a departure from academic integrity and may also face adverse legal consequences for infringement of intellectual property rights.

Required

R software for Windows or Mac OS. R Core Team (2024). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. URL http://www.R-project.org/. **Price**: Free

RStudio software for Windows or Mac OS. RStudio Team (2024). *RStudio: Integrated Development for R*. RStudio, Inc., Boston, MA URL https://posit.co/downloads/ **Price**: Free

Recommended

Kline, R. B. (2023). *Principles and Practice of Structural Equation Modeling* (5th Ed.). New York, NY: The Guilford Press. **Price at The Campus Bookstore**: $95.95 CAD

American Psychological Association. (2019). *Publication Manual of the American Psychological Association* (7th ed.). Washington, DC: Author. **Price at the APA website**: $31.99 USD

Baruffa, O. (2024). *The Big Book of R*. https://www.bigbookofr.com/ This compilation of 300+ free R books

Learning Statistics with R

R for Data Science.

allow you to have extensions on assignments, the extension time begins the day assignment is due, not at the end the 3-day grace period. The grace period is part of your extended time.

Late Policy 1 letter grade per day So, for example, if your initial grade for a lab assignment was an A, but the document was submitted after 8:00 pm on the Thursday following the lab lab

Evaluation

You are responsible for all lecture and laboratory material and all corresponding material on onQ. You must complete all 3 lab assignments and both homeworks to pass this course. You also are expected to adhere

PSYC 940 Course Outline Winter 2025

Week	Date	Topics	Due
1	January 6	**Introduction and Review**	
2	13	**Exploratory Factor and Composite Analyses I**	
3	20	**Exploratory Factor and Composite Analyses II**	
4	27	**Structural Equation Modeling Basics**	
5	February 3	**Confirmatory Factor and Composite Analyses I**	
6	10	**Confirmatory Factor and Composite Analyses II**	Lab Assignment #1
READING WEEK			
7	February 24	**Multiple Groups Analysis and Invariance Testing**	
8	March 3	**Moderation and Mediation**	Homework #1: Measurement
9	10	**Longitudinal Models I**	
10	17	**Longitudinal Models II**	Lab Assignment #2
11	24	**Dyadic Data Analysis and Multilevel SEM**	
12	31	**Mixture Models and Best Practices**	Lab Assignment #3
Exam	April 25	**Final paper due by 8:00 pm**	Homework #2: SEM