

## PSYC 5414 F: STRUCTURAL EQUATION MODELING

<b>Course</b>	PSYC 5414 F: Structural Equation Modeling
<b>Instructor</b>	Yan Liu
<b>Term</b>	Fall
<b>Course Delivery</b>	In-person
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<b>Office Hours</b>	TBA

### COURSE DESCRIPTION/INSTRUCTOR'S STATEMENT

Structural equation modeling (SEM) is a powerful multivariate analysis technique essential for modeling and understanding psychological phenomena and behaviours. SEM is widely used in psychology and social sciences. The goal of this course is to develop your skills on advanced statistical methods as well as help you to understand validity and measurement issues. You will have opportunities to conduct SEM using different software programs, including Mplus and R. The following topics will be covered in this course:

- Path models (including mediation and moderation)
- Exploratory factor analysis (EFA)
- Confirmatory factor analysis (CFA)
- Multiple group models and measurement invariance
- Structural models of latent variable mediation and moderation
- Latent growth curve models

Prerequisites: [PSYC 5410](#) and [PSYC 5411](#)

### EVALUATION (SUBJECT TO CHANGE)

Students will be evaluated based on quizzes, a presentation, assignments, and a final project.

## TEXTBOOKS

Whittaker, T. A., & Schumacker, R. E. (2022). *A Beginner's Guide to Structural Equation Modeling*. 5<sup>th</sup> Ed. New York, NY: Routledge, Taylor & Francis Group. DOI: 10.4324/9781003044017

A good reference book for CFA:

Brown (2015). *Confirmatory factor analysis for applied research*. 2<sup>nd</sup> Ed. New York, NY: Guilford Press.

Supplementary readings will also be provided.