PSYC 5414 – STRUCTURAL EQUATION MODELING

Course	PSYC 5414: Structural Equation Modeling
Instructor	Yan Liu
Term	Fall 2023
Course Delivery	In person
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Office Location	B546 Loeb
Office Hours	TBA

COURSE DESCRIPTION/INSTRUCTORS 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

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

TEXT

Whittaker, T. A., & Schumacker, R. *E*. (2022). A *Beginner's Guide* to *Structural Equation Modeling*. 5th 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. 2nd Ed. New York, NY: Guilford Press.

Supplementary readings will also be provided.