Nederlands / Dutch

424807 : Research Master: Structural Equation Models

General info

Instruction language	English	
Type of Instruction	Lectures	(Lecture schedule)
Type of exams	Written exam, take-home assignments	(Examination schedule)
Level:	Master	
Course load:	6 ECTS credits	
Blackboard Info	Link to Blackboard *(When you see 'Guest are not allowed in this course', please login at Blackboard itself)*	

Lecturer(s)

dr. M.A. Croon

Contents

Structural equation models (SEMs) are popular tools for measuring attributes (e.g., intelligence, neuroticism, empathy, tendency to criminal behavior) and testing theories about the structural relationships between these attributes and interesting covariates (e.g., educational level, gender). This course focuses on the two constituent parts of SEM, which are the measurement model and the structural model. The measurement model is the confirmatory factor model. The structural model concentrates on covariance structure analysis. It is discussed how these models are formulated in such a way that they are testable, how they are estimated and interpreted, and how the models relate to the measurement part of SEM. The relevant software in this course is the R package Lavaan.

Specifics

The course consists of 12 three-hour lectures and 4 take-home assignments. In the interactive lecture, the lecturer explains the subject matter, asks questions, and invites students to discuss the subject matter. In the take-home assignments the students apply the acquired methods and techniques to real-data sets from the Social Sciences and Social Psychology using the R package Lavaan.

The assignments consist of analyzing data and reporting the data analysis and results and are graded by either a pass or a fail. Students must pass all four assignments. The written exam determines the final grade. Students who fail one or more assignments can do an additional assignment at the end of the year. The content of this extra assignment depends on the failed assignments.

The 168 hours in the course consist of 36 (12 × 3) hours attending lectures, 48 (4 ×12) hours working on the assignments, and 84 hours self-tuition (60 hours for preparing the lectures and 24 hours for preparing the written exam).

Compulsory Reading

1. Kline, R.B., *Principles and practice of structural equation modelling*, Guilford Publications, 2011, 3rd edition.
2. Reader consisting of relevant articles and book chapters on structural equation modelling.

Required Prerequisites

Only for students who are qualified for the Research Master.

Compulsory for

- Master Social and Behavorial Sciences: Minor Social Psychology (2011, 2012)
- Master Social and Behavorial Sciences: Minor Methodology & Statistics (2011, 2012)

Recommended option for

- Research Master in Business: Information Management (2012)
- Master's degree program in Research in Social and Behavior Sciences (2009)

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