Nederlands / Dutch

424806 : Research Master: Latent Variable Measurement in the Social and Behavioral Sciences

General info

Instruction language	English	
Type of Instruction	Lectures and compulsory practicals	(No data available yet)
Type of exams	Written exam and two assignments. The assignments consist of analyzing data and reporting the data analysis and results.	(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. W.H.M. Emons (Coordinator)

Objectives

The aim of this course is to provide the practical and theoretical background that is necessary for constructing measurement instruments for use in scientific applications.

Contents

The subjects are the role of theory formation as the basis for instrument construction including different philosophical perspectives on theory (e.g., realism, constructivism) and cognitive modeling, the operationalization of attributes such as intelligence, neuroticism, religiosity, and leadership style, the construction of item pools, the construction of psychological tests and questionnaires, strategies of data collection (face-to-face, in writing, by telephone, via the Internet), the solution of missing data problems, the detection of outliers, scale construction using modern psychometric models known as item response models, and the evaluation of the results. The relevant software in this course is SPSS, MSP, LatentGOLD and OPLM, and several item response model analysis programs that are available as R code.

Specifics

This course will not be offered in 2012-2013

The course consists of 14 two-hour lectures and 14 two-hour computer practicals. In the interactive lecture, the lecturer explains the subject matter, asks questions, and invites students to discuss the subject matter. In the practicals, the students apply the acquired methods and techniques to real-data sets from the Social Sciences and Social Psychology using SPSS, MSP, LatentGOLD, OPLM and R.

The 168 hours in the course consist of 28 (14 × 2) hours attending lectures, 28 (14 × 2) hours attending practicals, 32 (2 ×16) hours working on the assignments, and 80 hours self-tuition (56 hours for preparing the lectures/practicals and 24 hours for preparing the written exam).

Attendance at the practicals is required. Students who fail to attend a practical three times or more need to complete an alternative assignment to fulfill the practicals requirement.

The final grade equals 1/3 times the average grade of the two assignments plus 2/3 times the grade of the written exam. There is a separate resit for each part (Assignment 1, Assignment 2, and written exam).

Compulsory Reading

1. Reader consisting of relevant articles and book chapters on item construction, test and questionnaire construction, classical item analysis, factor analysis, and parametric item response models.
2. Sijtsma, K. & Molenaar, I. W., *Introduction to nonparametric item response theory*, Thousand Oaks CA: Sage, 2002. 168 pp
3. Molenaar, I. W. & Sijtsma, K., *User's manual MSP5 for Windows*, Groningen: iec ProGAMMA., 2000. 105 pp

Required Prerequisites

Only for students who are qualified for the Research Master.

Recommended option for

- Master's degree program in Research in Social and Behavior Sciences (2009)
- Master Social and Behavorial Sciences: Minor Methodology & Statistics (2011, 2012)

(29-aug-2012)

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