



Research Methods and Statistics (Semester 3, 3 ECTS)

Description

This course provides essential foundation for the three research thesis courses: E-619 Research Thesis 1: Research Methods & Design (Semester 2), E-620 Research Thesis 2: Implementation & Data Management (Semester 3), and E-621 Research Thesis 3: Analysis & Write-up (Semester 4). E-604 Research Methods and Statistics provides students with advanced knowledge and skills which are further confirmed as competencies through application in the context of students' individual thesis projects. The course covers complex research designs used in applied psychological research, as well as the statistical techniques that deal with them, including factorial analysis of variance, repeated measures and mixed design analyses, multiple regression, time series analysis, statistical power analysis, and structural modelling.

The course aims to produce skilled consumers of research findings, capable of evaluating the soundness of research claims about human behaviour; and skilled researchers, capable of operationalising research questions, conducting valid research, and disseminating research findings in accordance with accepted reporting conventions. Emphasis is given to examining methodological threats to the validity of causal inferences, with particular reference to field studies and program evaluation. Students are familiarised with the use of the SPSS statistical package for analysing research data, and apply their learning to the evaluation of published research as well as reporting analyses of simulated data.

Learning Outcomes

On completing the course students should be able to:

- demonstrate knowledge of complex research designs used in applied psychological research
- demonstrate skill in designing and implementing suitable analyses of data obtained in varied research contexts, with particular reference to field studies and program evaluation
- demonstrate competence in the use of the SPSS statistical package from initial data management through to the application of complex statistical techniques.
- demonstrate competence in written and oral presentation of research data and reporting of valid inferences

Assessment

Assessment is based on frequent classroom assignments that test knowledge of research design and ability to apply diverse methods of data analysis. Assignments require students to make use of the SPSS statistical package, and involve written and oral presentation of research data.