

Course overview: Introduction to quantitative research methodology 2021	
Venue:	To be announced (note that the course may be converted to online, depending on how the COVID pandemic develops)
Teacher:	Robert (Bobby) Zachariae, professor, DMSc
Dates:	November 15-16 and 22-23, 2021 (note different starting times on the 16th and 23rd).
ECTS	5
Date	Areas/themes covered:
Assignment prior to the course	1) Brief description of my research project and its main challenges
Day 1 Nov 15, 2021 10.00 – 17.00	Introduction to the course. From idea to research design. The research process. My research question. Requirements for scientific hypotheses. Types of research designs: Strengths and limitations. Group exercises: Discussing and evaluating the participants' research ideas, research questions, and hypotheses. Background: the existing knowledge as starting point for my research project – what will my study add?
Home-assignment	2) My chosen research design – strengths and limitations
Day 2 Nov 16, 2021 09.00 – 16.00	My chosen design: sensitivity, precision, and possible sources of error. Statistical and practical significance. Reviewing the literature and combining existing results. My research project: Effect sizes, sample size, and statistical power.
Home-assignment	3) Recruitment and attrition – choices and challenges
Day 3 Nov 22, 2021 10.00 – 17.00	Recruitment, response rates, and drop-outs. Exercises. The quality of my assessment methods and instruments (focus: questionnaire/survey methods) Developing items, validating questionnaires, factor structure, internal consistency, differential item function, adapting questionnaires into another language. Research ethics and scientific misconduct. Ethical challenges in my research project.
Home-assignment	4) My analytical strategy – e) My strengths and challenges as researcher
Day 4 Nov 23, 2021 09.00 – 16.00	Analytical strategies. Analyzing my data: analytical strategy, data-management: "Cleaning up my act", dealing with missing values, data reduction, choice of statistical tests, assumptions. Special issues: missing data, mediation and moderation. Feedback on my choice of analytical strategy. A personal perspective: My strengths and challenges as a researcher? Group exercise. Bringing it all together: Overall quality assessment of my research project and design: Strengths, limitations, and what can be done to remedy the limitations? Course evaluation.