Empirical Research in IS

Welcome to the Empirical Research in IS (ERIS) course.

Learning Goals

The course provides students with solid foundations in empirical research methodologies and their application in the field of information systems. Students will learn about research designs and methods, including controlled experiments, case studies, surveys, and systematic reviews, enhancing their ability to evaluate research studies and their findings.

A primary goal is to prepare students for high-quality research outputs, such as MSc theses and supervised projects, through hands-on experience and practical applications. The course touches upon computational statistical testing, understanding the academic publishing process, including writing, submitting, and reviewing research papers, and emphasizes transparency and ethical conduct. The course will prepare students for successful careers in academia and industry.

Course Structure

This course consists of:

- 14 lectures
- 14 labs

The course is held twice per week. Please note, however, that the course does not follow the classical pattern of lecture-exercise. Some topics are introduced as early as possible, so you will have, for example, two lectures in a week. Sometimes the order gets swapped. Make sure to have a look at ILIAS to see what is being offered and when.

The labs will also have different formats:

- Classical exercises related to lectures
- Tutoring on the project
- Labs that expand on lecture topics from different angles
- Presentations by students

These are the slots in serial order, but plans can change during the semester:

- 1 - What IS this about
- 2 - Planning research
- EX1: forming groups, initial tutoring
- 3 - Papers and Literature
- EX2: searching literature? planning research?

- 4 - Theorizing
- EX3: tutoring
- 5 - Descriptive Statistics
- EX4: descriptive statistics with Python
- 6 - Inference Statistics - I
- EX5: inference statistics with Python - I
- 7 - Inference Statistics - II
- EX6: inference statistics with Python - II
- 8 - Inference Statistics - III
- EX7: inference statistics with Python - III
- EX8: tutoring
- 9 - Experiments
- 10 - Surveys I
- 11 - Surveys II + validity
- 12 - On Data
- EX9: tutoring
- 13 - Qualitative methods
- EX10: tutoring
- 14 - Other methods, Ethics
- EX11: statistics lab
- EX12: study presentation I
- EX13: study presentation II
- EX14: exam preparation

Prerequisites

The course is 100% self-contained. No book purchase is needed. Attending lectures and labs and studying from the slides (and notes) covers all that is needed.

The primary sources are provided at the end of each lecture slide set. Single references are also provided at the slide level.

There is recommended knowledge you should have for the project part and the exercises that mention the word Python:

- Basics of Python Programming (acquired during the 1st semester of the MSc IS)

This also means that, for those exercises, you need a laptop.

Course Evaluation

The evaluation for this course is based on:

- 50% group project

- 50% final written exam

For the group project, you will plan, design, execute, analyze, and report on a study. More info is provided during the first lecture and lab.

Contact Information

The course is held by:

- Prof. Dr. Daniel Graziotin, graziotin |AT| uni-hohenheim |DOT| de, lecturer, examiner, and responsible for the module
- M.Sc. Verena Ebert, verena |DOT| ebert |AT| uni-hohenheim.de, lab lecturer

We look forward to meeting you!