

## Module Description

# IN2278: Research Foundations and Methods for Information Systems Research

TUM Department of Informatics

<b>Module level:</b> Master	<b>Language:</b> German/English	<b>Module duration:</b> one semester	<b>Occurrence:</b> winter semester
<b>Credits*:</b> 4	<b>Total number of hours:</b> 120	<b>Self-study hours:</b> 105	<b>Contact hours:</b> 15

\* The number of credits can vary depending on the corresponding SPO version. The valid number is always indicated on the Transcript of Records or the Performance Record.

### Description of achievement and assessment methods:

Type of Assessment: presentation

The module examination is based on a term paper (70 %) and two presentations (30 %). By writing the term paper, students have to demonstrate a deep understanding of a selected research method. Therefore they need to precisely describe its procedure and its application in the exercise research project. Furthermore, they need to discuss its strength and weaknesses based on literature and their practical experiences from the exercise research project. By presenting a selected research method and their exercise research project, students have to demonstrate the mastery of the selected research method. Therefore they need to provide profound background knowledge of the selected research method (1. presentation) and defend its application and share their experiences from applying it (2. presentation). Both the term paper and the presentation are prepared in groups of 3 - 6 students.

<b>Exam type:</b> Presentation	<b>Exam duration (min.):</b> not specified	<b>Possibility of re-taking:</b> In the next semester: Yes At the end of the semester: No	<b>Homework:</b> No
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<b>Lecture:</b> No	<b>Conversation:</b> No	<b>Written paper:</b> No
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### (Recommended) requirements:

Introductory knowledge of Information Systems

### Contents:

The course provides knowledge and experiences in foundations of research, including philosophy of science, research methodology, and research project management.

The course tackles approaches and methods in qualitative and quantitative research as well as design research.

### Study goals:

After successful completion of the module, students are aware of the different perceptions of research and basic positions. The students understand the terms ontology and epistemology as well as the commonalities regarding socio-scientific, economical and technical research conceptions. Students are able to analyze and evaluate the research design of contemporary research published in information system journals and conferences. They are also able to design a research project and apply research methods in a rigorous manner. Furthermore, the students can practice their presentation skills, rethorics and moderation skills.

**Teaching and learning methods:**

Interactive lectures with beamer presentation and class room discussions to provide an overview on epistemology and research methods. Based on this, the student teams select a specific research method to focus on and present the procedure of the method, its strength and weaknesses. This is accompanied by a small exercise research project where the students apply the selected research method. Each research project is finally presented in the course and experiences are discussed.

**Media formats:**

Presentation slides

**Literature:**

Bortz, J., Döring, Nicola (2006). Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler, 4. Edition, Berlin, Heidelberg, New York: Springer-Verlag.

Eisenhardt, K.M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532-550.

Hevner, A.R.; March, S.T.; Park, J.; Ram, S. (2004). Design Science in Information Systems Research. *MIS Quarterly*, 28(1), 75-105.

**Responsible for the module:**

Krcmar, Helmut; Prof.: [helmut.krcmar@mytum.de](mailto:helmut.krcmar@mytum.de)

**Courses (Type, SH) Lecturer:**

0000000549 Research Foundations and Methods for Information Systems Research (FIM) (IN2278) (2SWS SE, WS 2016/17)

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For further information about this module and its allocation to the curriculum see:  
<https://campus.tum.de/tumonline/wbModHb.wbShowMHBReadOnly?pKnotenNr=768306>

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