# *TU-L0000 Research Methods in Industrial Engineering and Management*

# SYLLABUS

26. 8. 2021

| Instructor’s contact information | Course information |
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| Henri Schildthenri.schildt@aalto.fiX211 in Ekonominaukio 1No office hours, as agreed via e-mail **Course coordinator:** Joosef Vallijoosef.valli@aalto.fi | Level: PhD students2021, 1st and 2nd period (21.9. – 7.12.2021)EnglishPrimary course website (MyCourses):  |

1. OVERVIEW

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| The course serves as an introductory course to research methods in industrial management and to successfully carrying out one's PhD dissertation. The course is designed to assist the student in making sense of four key questions concerning the methodology of a successful PhD dissertation: 1) What constitutes a good research problem; 2) what are the criteria for scientific knowledge, fit to be used in solving one's research problem; 3) what kinds of research designs can be used to produce such knowledge; and 4) how to report findings in order to make a scientific contribution. |

1. PREREQUISITES

There are no specific prerequisites for the course.

1. LEARNING OUTCOMES

The participants will obtain a basic understanding of research methods and research design in the domain of management, including the knowledge of key ethical principles and skills related to designing research projects, conducting literature review, and publishing the findings. The course will also provide the an understanding of key conventions, institutions, and processes of academic life.

1. ASSESSMENT AND GRADING

The course is graded based on a pre-exam, individual pre-assignments, and the final assignment. The weighs of different criteria are indicated below:

1. Pre-exam (20%)

2. Weekly individual pre-assignments (40%)

3. Final assignment (40%)

1. ASSIGNMENTS

All assignments are returned to the course learning space in Aalto MyCourses website.

**Pre-exam**

The pre-exam familiarizes you with selected authors of organization theory and the processes of theory development and testing. Please acquire the book “Great Minds in Management: The Process of Theory Development” edited by Ken Smith and Michael Hitt (2005, Oxford University Press). I recommend you to read the whole book, but for the purposes of the pre-exam, the following 11 chapters are required:

Chapters written by the editors: 1 and 26

Main chapters by theorists: 2 (Bandura), 6 (Hambrick), 11 (Staw), 17 (Mintzberg), 19 (Weick), 20 (Freeman), 22 (Scott), 23 (Williamson), 24 (Winter)

Please answer the following questions, using additional sources if needed:

1. Reflect on how the basic disciplines (economics, psychology, social psychology and sociology) are visible in the various management theories and empirical methods in the readings? How are the disciplinary backgrounds evident in different styles and emphases of the covered management researchers?

2. For each of the nine authors, discuss briefly what you thought was the single most interesting insight and consider a phenomenon or phenomena in business to which the ideas could be extended, either theoretically or in practice.

The answer to each of these two questions should be around 600-1200 words (2-3 pages). Please write essay answers, paying particular attention to the logical structure.

Please familiarize yourself with academic use citations and references (preferably APA format, see e.g. http://libraryguides.vu.edu.au/apa-referencing/getting-started-in-apa-referencing). Return the pre-exam on MyCourses in Word or PDF format no later than on September 8th.

**PLEASE NOTE:**

In previous years there have always been **multiple** students who have failed to properly cite original references for their claims and who have even copied text directly without placing it in quotation marks. Please be sure to not make these mistakes. NEVER pass off others’ text as your own. These rules apply to all assignments, no matter how minor.

**Individual pre-assignments**

The individual pre-assignments are available in MyCourses and they are due by the end of Friday. Please note that the first pre-assignment is for session #2 (DL 24.9.).

**Final assignment**

The final assignment asks students to answer three questions relating to the concept of scientific contribution, the choice of research methods in your thesis research, and general reflection on key learning from the course. The comprehensive guidelines will be available in MyCourses.

1. READINGS

The course readings consist mainly of articles and book chapters. While readings for specific sessions are announced separately, the students are asked to obtain the following book for the pre-exam:

**Smith, K. & Hitt, M. (eds). 2005. Great Minds in Management: The Process of Theory Development. Oxford University Press.**

*Please note that in the electronic (Kindle) edition of the book, the word* ***field*** *is systematically misspelled* ***Weld****.**Similarly “fit” is sometimes misspelled “Wt”.*

1. COURSE SCHEDULE

All teaching takes place on Zoom. The lecture links are on the MyCourses page.

| Session | Date | Topic | Lecturer |
| --- | --- | --- | --- |
| #1 | 21.9. | Course kick-off – what is theory? | Henri Schildt |
| #2 | 28.9. | Research design and theoretical contributions | Henri Schildt |
| #3 | 5.10. | Academic writing practice  | Carol Kiriakos  |
| #4 | 12.10. | How and why do a literature review | Marina Biniari |
|  | 19.10. | -- no session -- |  |
| #5 | 26.10. | Inference in quantitative research, basics of regression models | Mikko Rönkkö |
| #6 | 2.11. | Measurement and research design | Mikko Rönkkö |
| #7 | 9.11. | Research ethics | Antti Rousi, Enrico Glerean, & Annukka Jyrämä |
| #8 | 16.11. | Philosophy of social sciences – epistemology and ontology | Henri Schildt |
| #9 | 23.11. | Writing for journals – argumentation and clarity | Henri Schildt |
| #10 | 30.11. | Academic careers and conferences | Henri Schildt |
| #11 | 7.12. | Final session | Panel discussion |

1. COURSE WORKLOAD

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| Classroom hours | 36h |
| Class preparation & pre-assignments | 43h |
| Pre-exam preparation | 25h |
| Final reflection essay | 31h |
| Total | 135h (5 cr) |

1. ETHICAL RULES

Aalto University Code of Academic Integrity and Handling Thereof>

https://into.aalto.fi/pages/viewpage.action?pageId=3772443

1. OTHER ISSUES

**Registration**

Please register to the course through MyCourses. We will inform participants after we have graded the pre-exams.

**Mandatory participation**

Students are allowed to miss two sessions without further repercussions. Third and fourth missed sessions carry heavy penalties to course grade. Students who miss more than four sessions cannot complete the course.

**Materials**

All materials will be available in MyCourses.