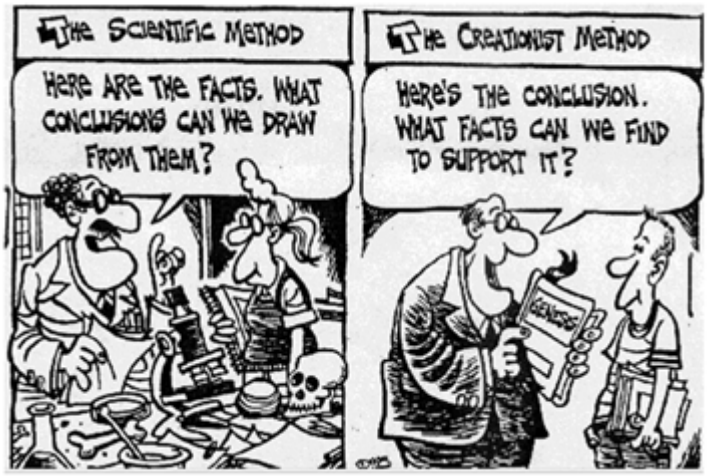
Updated: 11/16/2016

Syllabus for



PM3 – Research methodology in product realisation

Credits	7.5
Examiner	Kristina Säfsten
Contact	Kristina Säfsten kristina.safsten@ju.se +46 (0) 36 10 16 39
Target group	A fundamental course during a PhD education for all students working with empirical research.
Prerequisites	Admitted to third-cycle programmes or equivalent. It is recommended that the student has worked with their research for at least one year. It is of advantage to start with the course in Theory of Science.

Aim	To provide the students with fundamental knowledge and tools required for a researcher. Research methodology in product realization is a research supportive course. The course intends to give knowledge about how research is conducted within product realization which constitutes a base for their own research work. After completed course the students in a scientific and systematic way of planning, implementing and evaluating research work. The course aims to give students a comprehensive knowledge of the kinds of research methods, and in-depth knowledge of the methods that are relevant for the individual student. The main goal of the course is to improve the competence among the participants to scientifically and systematically collect, treat, analyse and present different kinds of data required for research and inquiry projects. Furthermore, the course is to give students knowledge of different types of data; methods of collecting, processing and presenting the qualitative as well as quantitative data will be affected. The course is a good complement to the course in theory of science.
Teachers / tutors	Kristina Säfsten is professor in production systems at School of Engineering, Jönköping University and she will be responsible for the course. She has long experience from teaching research methodology to engineers. She has developed the course at JTH given it to their master students from 2004. She has also been responsible for similar courses in other national graduate schools, and is responsible for courses in research methods for doctoral students at School of Engineering. During the course other teachers will be involved, together with Kristina. Which ones depends on the participating students.
Fee for industrial members	7 000 SEK

Learning outcomes

Upon successful completion of the course, participants should:

- have knowledge of and be able to discuss different research approaches and their suitability (e.g. so called fix design, flexible design, qualitative research, quantitative research, etc.)
- have knowledge on how different factors affect the choice of research method and technology for data collection
- to assess and discuss methodology made in a research work have knowledge about the various research methods
- have knowledge about ways to collect and process data independently to plan research

Contents

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Organisation

The course is organized in around four sessions:

Session 1: Exam of the course book and introduction to the course

Session 2: Seminars and lectures, presentation of Assignment 2

Session 3: Seminars and lectures: presentation of Assignment 3

Session 4: Final exam seminar, presentation and discussion about Assignment 1

Literature

Main reading: Karlsson, C. (2009) Researching Operations Management, Taylor & Francis, Inc.

Additional reading will be added....

Examination

The examination consists of three different assignments, of which one is individual.

Assignment 1: Throughout the course, the students shall individually work on a draft methodology section of the licentiate thesis. The draft should in addition to the description of the method chosen also contain clear arguments for the method selected. This assignment is carried out with the support of from the tutors. The result is presented at a concluding seminar.

Assignment 2: The students are responsible for a seminar where a selected research method is addressed in depth. The preparation is carried out in small groups, formed based on research interest/research questions. A detailed description of what is to be handled for each method is handed out separately. The result is presented at a seminar.

Assignment 3: The students should in groups select a doctoral thesis using "their" research method (the selected method). Focus of the assignment is the method section of the thesis. This should be analysed and discussed in relation to problem, result, etc.

All assignments will be described in more detail when the course starts.

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