



Kursanalys - KTH¹

Formulär för kursansvarig.

Kursanalysen utförs under kursens gång.

Nomenklatur: F – föreläsning, Ö – övning, R – räknestuga, L – laboration, S – seminarium)

KURSDATA Obligatorisk del ²

Kursens namn

Resarch Methods in Industrial Engineering and Management

Kursnummer

ME2003

Kurspoäng och poäng fördelat på exam-former

7.5 credits

När kursen genomfördes

Period 1 & 2, 2021

Kursansvarig och övriga lärare

Emrah Karakaya

Daniel Berlin

Armaghan Chizaryfard

Tatiana Nevzorova

Simon Okwir

Niklas Arvidsson

Cali Nuur

Bo Karlsson

Lars Uppvall

Christofer Laurell (async.)

Johann Packendor (async.)

Daniel Kamangar (async.)

Frauke Urban (asyn.)

Ed Saedi (async.)

Undervisningstimmor, fördelat på F, Ö, R, L, S

F:10, S:8

F:0.5, S:8

F:0.5, S:8

F:0.5, S:8

F:2

F:2

F:2

F:2

F:0.5

F:1

F:1

F:0.5

F:2

F:2

Antal registrerade studenter 100

Prestationsgrad efter 1:a examenstillfället, i %

Examinationsgrad efter 1:a examenstillfället, i %

MÅL

Ange övergripande målen för kursen

The purpose of the course is:

- To provide in-depth knowledge of research methods and common approaches in Industrial Engineering and Management.

- To provide students with relevant tools to plan and carry out their theses including writing the report.

Ange hur kursen är utformad för att uppfylla målen

The course is composed of five modules. Each module has its own structure and literature. Following a flipped classroom approach, students are introduced to the learning material before class. Learning environment includes both inside and outside of the classroom.

Eventuellt deltagande i länkmöte före kursstart

¹ Instruktioner till kursanalysformulär sist i dokumentet

² Rektors beslut: <http://www.kth.se/info/kth-handboken/II/12/1.html>

Kursens pedagogiska utveckling I

Beskriv de förändringar som gjorts sedan förra kursomgången. (Berätta även för studenterna vid kursstart)

In compare to the previous year, the timespan of course was expanded from one period to one and half period. This expansion has provided students with extra time to reflect between modules as well as alleviated the hectic schedule of the course. In addition we have updated the course literature (e.g., added specific articles about sustainability) and diversified the topics that have been in the guest lectures (e.g., new lectures on machine learning as a research method, digital media analytics).

Kontakt med studenterna under kursens gång

Studenter i årets kurs-nämnd:	Namn	E-post (lämnas blank vid webbpublicering)
	Nils Wikland	
	Johan Welltén	

Resultat av formativ mittkursenkät

Resultat av kursmöten

We had 4 course reference group meetings (in the beginning of the course, in the middle, in the end and after). This reference group was composed of Nils W Johan W, Daniel B, Tatiana N, Armaghan C and myself. The first 3 meetings were held together with ref group of ME2004, which run in pallel. For the final meeting, we had a seperate meeting and invited the program director (Lars U).

These meetings gave us not only good ideas on how to make minor changes during the courses (e.g., on deadlines or how the information is provided) but also come up with new ideas that we can implement in the next course round.

Kontakt med övriga lärare under kursens gång

Kommentarer

Kursenkät; teknologernas synpunkter Obligatorisk del ³

Att komma ihåg:

- 1) Uppmana, mha kursnämnden, till ifyllande av kursenkät i anslutning till / just efter slutexaminationen
- 2) Delge kursnämnden enkäten
- 3) Publicera enkäten under en kortare tid

Period, då enkäten var aktiv 1-8 November 2021

³ Rektors beslut: <http://www.kth.se/info/kth-handboken/II/12/1.html>

Frågor, som adderades till standardfrågorna	<p>We addressed the following questions (at which they can rate):</p> <ul style="list-style-type: none"> - their expectations before the course started (vey high, high, somewhat high, somewhat low, low, very low) - their view on the course after the last seminar (very positive, positive, somewhat positive, somewhat negative, negative, very negative) <p>And open end questions:</p> <ul style="list-style-type: none"> - What was good in the course? - What should be improved in the course? - Who would you recommend this course to and why?
Svarsfrekvens	23%
Förändringar sedan förra genomförandet	
Helhetsintryck	
Relevanta webb-länkar	
Kursansvarigs tolkning av enkät	
Positiva synpunkter	<p>Some excerpts from the course survey (which I think summarize the positive aspects)</p> <ul style="list-style-type: none"> - 'It was good to learn the different methods, these can likely be used when writing the master thesis' - 'Learning methods that will be used in the master thesis, but most importantly being able to work on a suggestion for a master thesis. I feel that many students in other master programmes don't do this and then struggle much more with finding a thesis subject' - 'I got to learn and implement new methods and techniques which I hope will be useful when I write my Master's thesis' - 'What was good in this course was the preperation of every step in writing my master's thesis. The most valuable learning fro this course was conducting a literature review and why it is as important as it is to good research' - 'I like the concepts with the modules and how you as a group had to work with different methods etc. I learned a lot.'

Negativa synpunkter	<p>Some excerpts from the course survey (which I think summarize what should be improved in the course)</p> <ul style="list-style-type: none"> - 'It was very hectic. I often found myself prioritising this course over ME2502. The deadlines were too close to each other and I barely caught a break during period 1.' - 'The assignments are way too extensive and the literature is way too much [...].' - 'There were way too many hand-ins. In the beginning, we were told the course had been extended to accommodate for its hectic schedule but this only made it worse. I cannot understand why each assignment had to be so extensive [...].' - 'It is too much to do. There is no way that the workload corresponds to the hp given from the course. I loved the content of the course and the insight it has given me. However, it has been way too much to do and also not given any time for other exams during the exam period is unacceptable.'
Var kursen relevant i förhållande till kursmålen?	Yes
Syn på förkunskaperna	
Syn på undervisningsformen	
Syn på kurslitteratur/kursmaterial	
Syn på examinationen	
Speciellt intressanta kommentarer	<p>Overall, the students seem to be content with the course design. For instance in the course survey, 83% (19 students out of 23 respondents) has evaluated the course positively (while pointing out some room for improvement).</p> <p>The biggest issue was the hectic schedule of the course, e.g., too many submissions, intense course literature etc.</p> <p>I believe that students have seen the value of this course in broader perspective, some even suggesting they wish they had such course earlier in their education. Some excerpts from the survey at which we asked whether and who to recommend this course, we received comments such:</p> <ul style="list-style-type: none"> - 'All people should take it, it gives fundamental understanding, and I think it would be good to have a light version earlier in the education for all students, e.g. in year 2-3.' - 'The learnings from this course is in most part aimed at people working with/investigating some type of topic. But I also think that many learnings are valuable in general to be used. For example viewing readings critically, or examine the trustworthiness in a paper.' - 'To anyone who will conduct a scientific research. I actually find it strange that we did not have this type of course for the bachelors thesis, to prepare for all reports written during the master'

Synpunkter från övriga lärare efter avslutad kurs

Vad fungerade bra

Vad fungerade mindre bra

Resultat av kursnämndsmöte efter examination

Studenternas sammanfattn.

Förslag till förändringar

Länk till kursnämndsprot.

Kursansvarigs sammanfattande berättelse

Helhetsintryck

I think it was overall a good course (with some room for improvement)

Positiva synpunkter

- The students showed great interest in the course (and, seems that, they have liked the content)
- The hybrid lectures and online seminars worked well. Hybrid lectures were recorded; and, if a student misses the live session, they could watch it later (this was an advantage of the hybrid format).
- Seminars (at which they had hands-on experience) were useful. Also, having the seminars online did not create any drawbacks
- Module-by-module structure functioned well
- Students got to know a diverse set of perspectives (on research methods)

Negativa synpunkter

- It was perceived as hectic. Although we extended the timespan of the course from one period to one and half periods, having submissions on the exam period (between period 1 and 2) have created unintended problems.
- It was difficult to correct all the assignments in a quick manner (but we managed it better than the previous year)

Syn på förkunskaperna

I think the prior knowledge level of students was sufficient. It could be even better to have a mini research course in the first year of their program, so that they could be even better prepared.

Syn på undervisningsformen

I think it was perceived as good

Syn på kurslitteratur/kursmaterial

I think the majority of the course literature/material was useful. However, few articles (in the course literature) was too heavy to understand for the students.

Syn på examinationen

I think examination was designed in line with ILOs.

Kursens pedagogiska utveckling II Obligatorisk del ⁴

Hur förändringarna till denna kursomgång fungerade

I think we have turned the online format into an advantage (second year in a row).

The joint reference group meetings with ME2004 was a good addition

Förändringar som bör göras inför nästa kursomgång

- We need to start the last module earlier, so that the last phase of the course does not become so hectic.
- We will change of some of the journal articles in the course literature
- We also think of revising some assignments, e.g., Module 4
- We are also planning to introduce more instructions on reference systems
- Perhaps, we also need provide some clarifications on the grading criteria for "pass" (as it is now we have too many revise and resubmits)

⁴ Rektors beslut: <http://www.kth.se/info/kth-handboken/II/12/1.html>

Övrigt

Kommentarer

Instruktioner till kursanalysformulär

- 1) Kursanalysformuläret fylls i interaktivt; fälten expanderar automatiskt.
- 2) Fyll i fälten inom en månad efter kursens slut. (Viktigt krav från KTH!)
Skicka sedan till studierektor (som vidarebefordrar till prefekt och programansvarig).
- 3) Försök att ge så kompletta uppgifter som möjligt.
Tänk på att kursanalysen är ett hjälpmedel inte bara för teknologerna, utan även för Dig som lärare.
- 4) Med ”prestationsgrad” avses antalet presterade poäng hittills på kursen (inlämningsuppgifter, projektuppgifter, laborationer etc.) dividerat med antalet möjliga poäng för de registrerade studenterna. Med ”examinationsgrad” avses antalet studenter av de registrerade, som klarat samtliga kurskrav.
Kurssekreteraren hjälper gärna till här.
- 5) Kontakten med studenterna:
 - Etablera kursnämnd under kursens första vecka (minst två studerande, gärna genusbalanserad).
 - Lämplig bonus till kursnämndsdeltagarna är fri kurslitteratur.
 - Om kursnämnd ej kan etableras, skall sektionens studienämndsordförande (SNO) kontaktas genast (se www.ths.kth.se/utbildning/utbildningsradet.html för kontaktuppgifter).
 - Kursnämnden skall sammanträda under kursens gång, exempelvis i halvtid. Har mittkursutvärdering genomförts, skall den diskuteras då.
 - Kursnämnden skall även ha ett möte efter det att studenterna har besvarat kursutvärderingen och kursnämndens studenter fått tillgång till resultaten. Undantaget är kurser i period fyra, där mötet bör ske direkt efter examinationen är avslutad för att analysen skall vara klar innan sommaren.
 - Under det avslutande kursnämndsmötet bör studenterna föra protokoll. Detta protokoll skall kursansvarig få senast en vecka efter mötet.
 - Det är kursansvarigs ansvar att kalla till kursnämndsmöten.

Slutligen, tänk på:

- det är viktigt att kursanalysen tydligt *visar utvecklingen av kursens kvalitet* från ett läsår till nästa.
- möjligheten att lägga ut kursanalysen på kurshemsidan.
- spara kursanalysen till förberedelsearbetet inför nästa kursomgång.