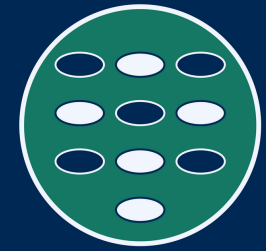




Norges miljø- og
biovitenskapelige
universitet

Institutt for datavitenskap

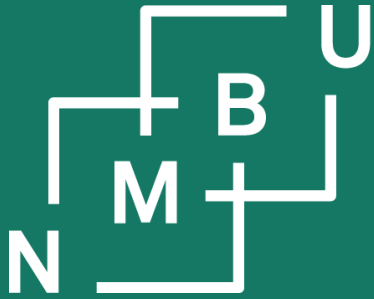


Digitalisering på Ås

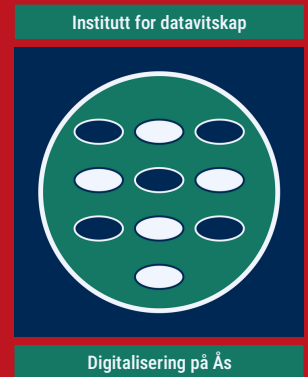
DAT390

Data science seminar

- 1 Introduction
 - 1.1 Seminar course overview
 - 1.2 Get to know each other's ideas



Noregs miljø- og
biovitenskaplege
universitet



1 Introduction

1.1 DAT390 overview

Instructors in DAT390

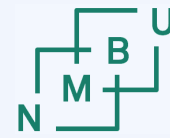


Kristin Tøndel



Martin Horsch

From week 41 (7th October), this course will be split into two sections. Kristin's will meet in TF1-210, Martin's will meet in U227 (in Ur).



The three main elements of DAT390

1. **DAT390 is a seminar.** This means that there will be research presentations.
2. **DAT390 is a course in academic writing.** You will submit a scientific report.

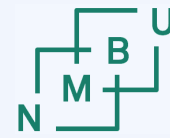
There are three stages of this:

- Analysis of the literature and state of the art → you receive feedback
- Nearly finished report w. methods and results → you receive feedback
- The final report → this is the one that counts

The DAT390 report should be the basis for your master thesis work!

You will need to have some first **preliminary results** to report.

3. **DAT390 is a course in good research practice.** This means that the instructors will give some input on frequent issues in scientific research.



(1) Why hold a seminar?

In this seminar, each of you will hold two short seminar talks:

- One that summarizes your analysis of the literature and state of the art, in the field of research and development that you plan to work in.
 - These talks will be scheduled from week 41 to week 44.
- One that presents your own methodology and preliminary results.
 - These talks will be scheduled from week 45 to week 48.

The talks are mandatory, but don't influence your grade in DAT390.

Why is it helpful to give such presentations in front of an audience?

But you also need to listen to others' talks and take part in discussions.

Is this not boring? Their topics are not yours. What is the benefit from that?

(2) Important actions and deadlines

20th September 2024: Statement on **master topic** and advisor
it will help your work more if these are already final

4th October 2024: **Literature review** document (individual) submission
research and summarize the state of the art

"nearly finished report"

8th November 2024: **Methodology** document (individual) submission
describe the work to be done and show feasibility

13th December 2024: **DAT390 report** (individual) submission
this is the work that determines the grade

(2) How will the DAT390 report be graded?

Scheme for grading DAT390 reports

- 10 Literature review and disciplinary context
- 10 Technical grounding and theoretical insight
- 10 Goal description
- 10 Choice and justification of working methods
- 10 Good practice related to data
- 10 Preliminary results and/or feasibility demonstration
- 10 Analysis and discussion
- 10 Critical reflection and plans or suggestions for future work
- 10 Structure and form
- 10 Language

30%

**Introduction
and theory**

20%

**Methods and
working practice**

30%

**Results and
discussion**

20%

**Form and
academic writing**

A: 90 - 100 points

B: 80 - 89 points

C: 60 - 79 points

D: 50 - 59 points

E: 40 - 49 points

F: 00 - 39 points

(2) Template for agreements with the main advisors¹

Your work on DAT390 and the master thesis will be more streamlined if you obtain **permission to reuse content** from the DAT390 report within the thesis. It is your **master thesis advisor** who needs to approve this.

- 1) Pursuant to NMBU's retningslinjer «behandling av mistanke om fusk», point 3.2h, permission to reuse own material is hereby granted by aforementioned main advisor to aforementioned student for a master thesis on the thesis topic indicated above.
- 2) The permission extends to the student's own material that has been created more recently than three years before the master thesis due date. It does not extend to older material.
- 3) Content and ideas from the DAT390 report can be reused for the master thesis.
- 4) It is left at the student's discretion whether or how a reference (*i.e.*, citation or other pointer, *e.g.*, a footnote) to the original source of reused own unpublished material (*i.e.*, not published as a journal article or conference or book contribution) should be included. An omission to do so will not in itself be judged to constitute academic misconduct.

¹https://home.bawue.de/~horsch/teaching/dat390/material/dat390-template_master-thesis-advisors_2024.docx

(3) Input on good practice in research

This will be the main focus within the first four weeks (now until week 40).

Reviewing the literature

what is a good literature review?

literature research

quality of references

how to manage

references, cite and quote

Methodology and good research practice

research data

management

what is scientific knowledge?

reproducibility / scientific method

Research ethics and impact

AI ethics

general research ethics

plagiarism and

intellectual property

You need some time to analyse the literature before giving a talk about it

→ so there will be no presentations in the first four weeks of the course!

There is also time to keep discussing issues of scientific practice after week 40.

We count on you to raise anything you would like to see discussed!

Summary: What are the mandatory activities?

Oral presentations.

- Give a presentation on the literature and state of the art in your area of work, and another on your methodology and preliminary results.
- ~15 minutes for each of the presentations, including time for discussion.

Academic discussion.

- Give structured feedback to four of these presentations.

Attend the seminar meetings. Naturally, you must be present when you are scheduled to present or give feedback. Other than this, it will not be controlled, but if you are absent and some important information is shared at the meeting, it is your duty, not ours, to make sure that you stay informed.

The mandatory activities do not contribute to the grade (character).

The grade for DAT390 is only determined from the final report - nothing else.

Summary: What is not mandatory?

Declaring the topic of your DAT390 report in advance.

- We asked for this information, but not supplying it will not disqualify you.
- You can in principle keep changing your topic up until 13th December.
- You can also refuse to declare any topic up until 13th December.

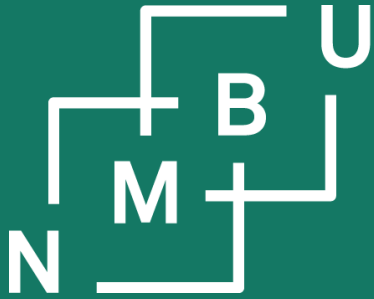
Any relation between your DAT390 report topic and your master thesis topic.

- If the topics are related, it will make DAT390 more useful for you.
- This is only a recommendation. You are not required to know your master thesis topic or your master thesis advisor at this stage.

Submitting the literature study (4.10.) and the nearly finished report (8.11.).

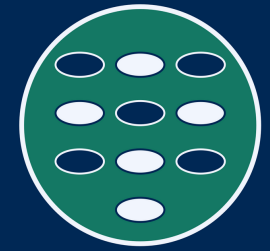
- This is our duty to you, not the other way around.
- If you submit them on time, you receive feedback. If you make use of the feedback, it will improve your final report and your master thesis.

The grade for DAT390 is only determined from the **final report** - nothing else.



Noregs miljø- og
biovitenskaplege
universitet

Institutt for datavitenskap



Digitalisering på Ås

1 Introduction

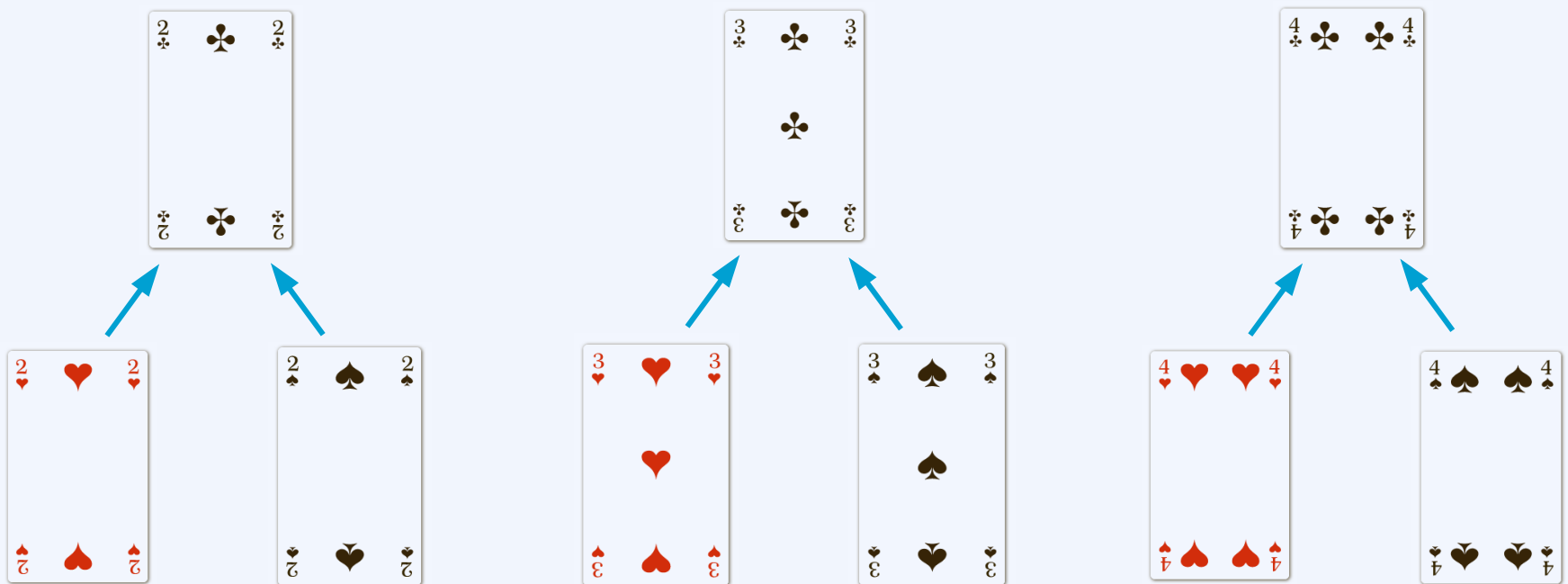
1.1 DAT390 overview

1.2 What are we even doing?

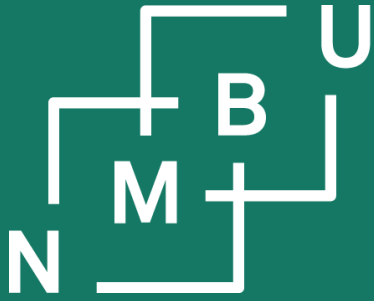
Describe your topic/idea to each other

What will your master thesis be about? (Or: What is your best idea, as of now?)

Summarize this to each other in groups of three people.

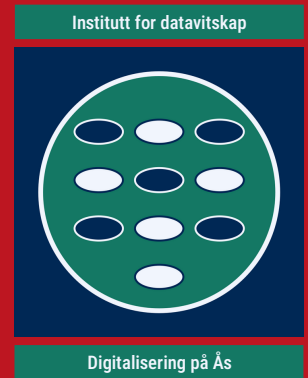


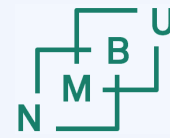
Take simple notes on what the others say. You will need them in the next step.



Noregs miljø- og
biovitenskaplege
universitet

Conclusion





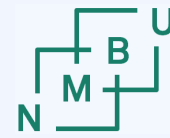
Within week 38 (20.9.), see task¹

Submit both a LaTeX source file and the generated PDF document stating:

- Who will be your master thesis advisor?
- What is your master thesis topic? What is the title of the preliminary work that you will present and report on within DAT390?
- How much have you interacted with the master thesis advisor so far?
- What is your language competency level in English and in Norwegian, and what language do you plan to use for writing your master thesis?
- How confident are you at working with LaTeX?

It is not a problem if you have not decided finally yet. Give us your best idea.

¹<https://home.bawue.de/~horsch/teaching/dat390/tasks/dat390-1.html>



Within week 39 (27.9.), see task¹

Select **seven concepts** that are important to your work.

For each of these concepts, give a brief **definition**. If this definition is taken from the academic literature or another terminology source, cite and quote appropriately.

It would be best if we could build list of such terms, relevant to work from our seminar, both in English and in Norwegian. Good sources for technical terms in Norwegian include:

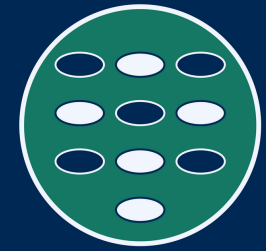
- Termportalen (<https://www.termportalen.no/>)
- Articles in Store Norske Leksikon (SNL)
- Textbooks and lecture notes in Norwegian

¹<https://home.bawue.de/~horsch/teaching/dat390/tasks/dat390-2.html>



Norges miljø- og
biovitenskapelige
universitet

Institutt for datavitenskap



Digitalisering på Ås

DAT390

Data science seminar

- 1 Introduction
 - 1.1 Seminar course overview
 - 1.2 Get to know each other's ideas