Teachers’ meeting

2023-03-17

Program Teachers' meeting March 17 2023

9.00 Welcome
9.05 Information on undergraduate education
9.30 Information on PhD education
9.50 Staffing, recruitment and joint courses
10.00 Coffee
10.20 One entry point, Mechanical engineering
10.40 Group discussions
11.30 Joint discussions
12.00 Lunch

The new Chalmers web

- The pages are still under development. More will be added to the page on education. https://www.chalmers.se/institutioner/mv/utbildning/
- But it will be **much** less compared to before, since most information has moved to other places.
- More logical places, but also different places.
- The links that follow on the next slides will be added to the page on education at chalmers.se.

New locations of information

- The information about our education at GU has moved to the GU web. https://www.gu.se/matematiska-vetenskaper/studera-hos-oss
- The information to our current students at GU has moved to the student portal. https://studentportal.gu.se/minastudier/math?skipSSOCheck=true
- The lists of courses: https://www.gu.se/matematiska-vetenskaper/fristaende-kurser-i-matematik and https://www.gu.se/matematiska-vetenskaper/fristaende-kurser-i-matematisk-statistik

New locations of information

- As we first announced on the meeting one year (and two days) ago the tree structure with all information about our courses including links to Canvas/old homepages has been moved ta a database that can be accessed through http://utb.math.chalmers.se/.

Computer resources

- In the computer labs only 1/4 of the computers were replaced and the other were replaced by new screens and keyboards for students to attach their laptop.
- There are economical, environmental and pedagogical reasons to rely on most students using their own computer.
- The central computational resources are now also available for undergraduate education (courses and thesis work) at a “trial” status. Contact Stefan if you would like to use it.

Student statistics GU

2010-2019 on average 52 students started the bachelor program and 2013-2022 on average 15 (30 %) finished the program). 30 % disappear before first exam, another 20 % the first semester and the other 20 % evenly spread out during the program. The last three years about 75 students have been admitted each year.

The last years about 25 students are admitted to the masters' program each year, and a little more than half finish the program.

Student statistics CTH

2010-2019 on average 59 students started “Teknisk matematik” and 2015-2022 on average 20 (33 %) got a “civilingenjör” degree in “teknisk matematik”. Next year the number of students is raised by 10.

The last three years about 70 students are admitted to the masters’ program ENM each year, and during the same time a little over 40 student got a masters’ degree in mathematics each year.

PhD information

Introduction to group discussions

Staffing, recruitment and joint courses

Staffing

- The solution with Peter and Thomas sharing the staffing has worked excellent. Plan is that Peter will take Thomas role next summer and someone else will take Peter's role to have more of "taking turns".
- Changes in LAS forced us to employ many more students as "amanuens" and this will continue. Both pros and cons and haven't changed so much in practice.
- LAS also affects the possibility to hire guest teachers. Next academic year we will hire "timlärare" on Chalmers, which is similar to "gästlärare" but not affected by LAS.

“Produktivitetsavdraget” (productivity reduction)

- Every year (since 1994) all state organizations have been expected to save between 1 and 2 percent on salaries.
- During the last 30 years, we’ve lost more than 30 percent. (If not, we could have been 20-25 more senior people at the department and 10-15 more PhD students. Just about what we would need to be able to staff the courses in the same way as in 1994 and at the same time have enough time to do research.)
- In the year 2350 there will be only one extremely productive senior person left to run the department (unless the model is changed).

“Streamlining”

During these 30 years major things have changed to cope with the deduction

- Classes are bigger
- Students do a very large share of the exercise sessions and computer labs
- We have temporary full time teachers
- Administration is more efficient, but a larger share is done by teachers.

The amount of teaching is about the same, but with senior people and PhD students replaced by undergraduate students there is a question regarding quality.

Joint courses

- The three programs in civil engineering (S cing, S hing and AT) have had joint courses for several years.
- Starting last academic year I + Z and E + MT + TD are new constellations.
- This year D + IT + CS at GU have joint courses (300 + students).
- The programs in mechanical engineering are applying for having a joint entry point. (Presentation after the coffee)
- Old joint courses between TM + F and K + BT + KF

At least the three first bullets have challenges. Looking at other technical universities nearby, it’s more common to have much less diversity in the basic courses in math (with the same challenges as having joint courses between programs).

Group discussions

How do we solve the problem to staff all our courses?

- Continue to use temporary teachers?
- Recruit permanent (full time) teachers?
- We teach more on average?
- Less teaching in each course?
- Larger classes?
- Let other department teach more courses in mathematics?
- Or?

Group discussions

What would we recommend that Chalmers do?

- Fewer courses so that many programs take the same course (or the opposite).
- Joint entry point Hing and Cing/Joint courses between Hing and Cing but separate programs/Separate education Hing and Cing/Stop educating Hing (or Cing)
- Fewer students or trying to maximize the number of students.
- Something else?