



LUND  
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Teaching

Johan Rathsman

Measures against  
over production

Clarification of  
"who is doing  
what" in  
undergraduate  
teaching

Restructuring the  
bachelor program

Teaching admin

Course plans and  
web appearance

Teaching by PhD  
students

Other questions?

# Teaching and Courses

Johan Rathsman

Staff meeting, 2015-06-10



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# Agenda

- 1 Measures against over production
- 2 Clarification of "who is doing what" in undergraduate teaching
- 3 Restructuring the bachelor program
- 4 Teaching admin
- 5 Course plans and web appearance
- 6 Teaching by PhD students
- 7 Other questions?



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## Measures against over production

N-fak: 25% more students than we are paid for  
(astro:  $\pm 0$  %, tf: +30%)

- fewer students starting the bachelor program (25  $\rightarrow$  20)
- priority to students following N-fak programs
- "fristående kurs" only in special cases - not thesis projects
- deregister students who quit early (before 3 weeks) - mandatory course elements
- promote exchange studies
- common rollcall (upprop)?

Erasmus learning traineeships - responsibility of research groups



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## Clarification of "who is doing what" in undergraduate teaching

New document on the Studierektorwiki

<http://dev.thep.lu.se/StudierektorWiki>

- studierektor (JR)
- studievägledare (NR)
- rekryteringsansvarig (TB)
- masterkoordinator astrofysik (AJ)
- masterkoordinator fysik, biologisk fysik och beräkningsbiologi (TA?)
- masterkoordinator fysik, teoretisk fysik (MS?)
- internationell koordinator (AJ)
- kursadministratör (EJ)
- kursansvariga



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# Restructuring the bachelor program

Goal - to have a unified bachelor program in astrophysics, physics and theoretical physics without gaps or overlaps

## First year

- Physics 1 - essentially unchanged
- Mathematics 1 - new 7.5 hp course on programming

## Third semester- first time spring 2016

- First study period
  - Analysis in several dimensions, 7.5 hp
  - Linear algebra II, 7.5 hp
- Second study period
  - Quantum mechanics, 7.5 hp
  - Statistical physics and quantum statistics, 7.5 hp



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## Forth and Fifth semester

- "Mandatory" first study period
  - Analytical mechanics and special relativity, 7.5 hp
  - Atomic and molecular physics, 7.5 hp
  - Nuclear physics and reactors, 7.5 hp
- "Mandatory" second study period
  - Electromagnetic field theory, 7.5 hp
  - Particle physics, cosmology and accelerators, 7.5 hp
  - Solid state physics, 7.5 hp
- Elective courses
  - Stellar structure and evolution, 7.5 hp
  - Theoretical biophysics, 7.5 hp
  - Theoretical particle physics, 7.5 hp
  - ...

## Sixth semester

- Bachelor project, 15 hp
- The scientific method, 7.5 hp (elective?)
- "Mandatory" or elective course 7.5 hp



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# Teaching admin

## Student rights

- course representative (kursombud)
- course literature - six weeks before course start (to AF before June 1st and Dec 1st)
- schedule - five weeks before course start
  - new classification system to avoid clashes

## Plagiarism

- inform students about rules repeatedly
- use Urkund for reports
- clarification from vice-chancellor about barred students

## New tools

- Live@Lund (includes Urkund automatically)

## Teaching facilities

- refitting of Andromeda with more white boards



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## Classification of courses

- First study period

A: FYTN03/ASTM19 (Tobias/Sofia)

B: FYTN01/ASTM14 (Torbjörn/Ross)

C: FYTN05/ASTB01 (????/Anders J)

ASTA03 (Nils) går kvällstid

BINP13 (Mattias) går annorstädes

FYTA11 (Bo) går 10-12 varje dag i HUB

- Second study period

A: FYTN02/ASTA33 (Anders I/Thomas)

B: FYTN04/ASTM13 (Hans/David)

C: FYTN06/FYTN09/ASTM21 (Mattias/Roman/Lennart)

ASTC01 (Dainis) går 16-18

ASTA03 går kvällstid

FYTA11 går 10-12 varje dag i HUB

**Course responsible ensure that schedules for A, B and C courses do not overlap.**





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Examples of standard schedules:

Mån	10-12	A	A
Mån	13-15	B	B
Tis	10-12*	C	C
Tis	13-15	A	B
Ons	10-12	B	A
Ons	13-15	C	C
Tor	10-12	A	A
Tor	13-15*		
Fre	10-12*	B	B
Fre	13-15	C	C

\*constraints: astro seminars Thursdays 14-15, astro weekly meetings Fridays 10-12, Tuesdays 10-12



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# Course plans and web appearance

## Course plans

- new course plans for master thesis projects in theoretical physics: FYTM03, FYTM04
  - new mandatory course elements (scientific writing, academic writing in English, academic honesty, information retrieval, popular science)
  - new registration form replacing contract
  - for more details see:  
<http://www.thep.lu.se/english/education/courses/degree-projects-in-astronomy-or-theoretical-physics>
- translation of course plans into English



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## Teaching by PhD students

- Course responsible find suitable PhD students - check with Director of studies and advisor
- Meeting with PhD students about teaching
  - continuity – important that the experiences made from individual PhD students when teaching different labs, projects etc are handed over to the the next one
  - need (better) guide-lines for how to correct the reports: what are the important points to look for, what is the progression between different labs, projects etc.
  - need a better explanation of the grading system and what is required for a VG
  - the on-line correction system for FYTA11 is working poorly and needs to be improved or abandoned
  - it is important that the feed-back in form of course evaluations is also sent to the PhD students and that they are put on the course home page as soon as possible.

Continue with meetings in April and November



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