

FYTA14 vt13

Respondents: 16
Answer Count: 12
Answer Frequency: 75,00 %

General opinion

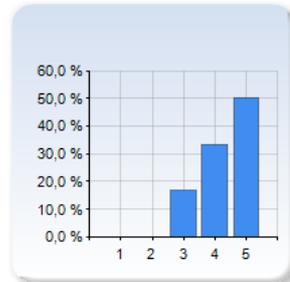
Give your opinion in the scale 1-5.

- 1 = very negative
- 2 = negative
- 3 = neutral
- 4 = positive
- 5 = very positive

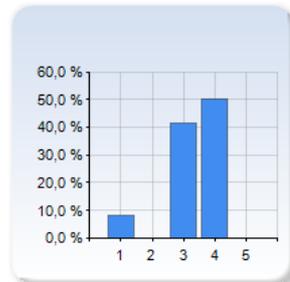
The comment field in the end is very important! It will help us understand what is to be kept when the grade is good, and what to change when the grade is poor.

What is your general opinion of...

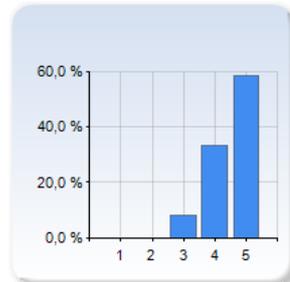
the course?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (16,7%)
4	4 (33,3%)
5	6 (50,0%)
Total	12 (100,0%)



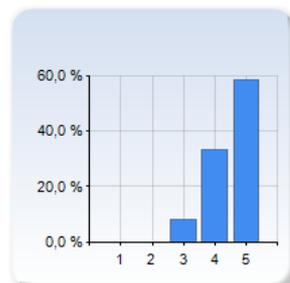
"Physics of Continuous Matter" by Lautrup?	Number of Responses
1	1 (8,3%)
2	0 (0,0%)
3	5 (41,7%)
4	6 (50,0%)
5	0 (0,0%)
Total	12 (100,0%)



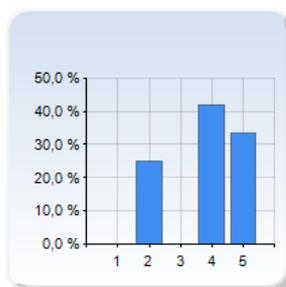
the lectures with Patrik Edén?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (8,3%)
4	4 (33,3%)
5	7 (58,3%)
Total	12 (100,0%)



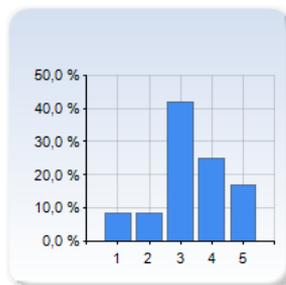
the lectures with Erik Wahlén?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (8,3%)
4	4 (33,3%)
5	7 (58,3%)
Total	12 (100,0%)



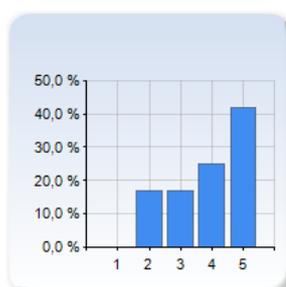
the format of the problem solving sessions?	Number of Responses
1	0 (0,0%)
2	3 (25,0%)
3	0 (0,0%)
4	5 (41,7%)
5	4 (33,3%)
Total	12 (100,0%)



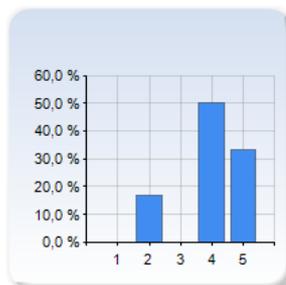
the exercises at the problem solving sessions?	Number of Responses
1	1 (8,3%)
2	1 (8,3%)
3	5 (41,7%)
4	3 (25,0%)
5	2 (16,7%)
Total	12 (100,0%)



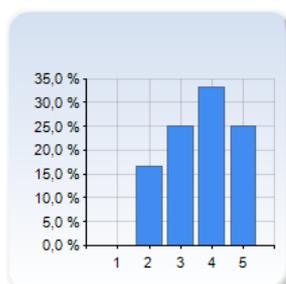
the hand-in exercises?	Number of Responses
1	0 (0,0%)
2	2 (16,7%)
3	2 (16,7%)
4	3 (25,0%)
5	5 (41,7%)
Total	12 (100,0%)



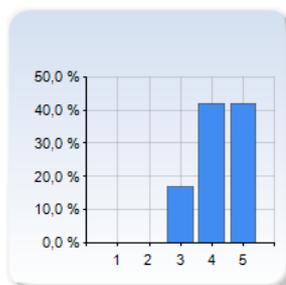
the balance between lectures and problem-solving sessions?	Number of Responses
1	0 (0,0%)
2	2 (16,7%)
3	0 (0,0%)
4	6 (50,0%)
5	4 (33,3%)
Total	12 (100,0%)



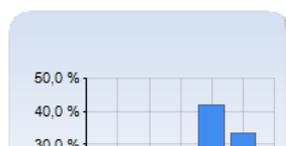
the written exam?	Number of Responses
1	0 (0,0%)
2	2 (16,7%)
3	3 (25,0%)
4	4 (33,3%)
5	3 (25,0%)
Total	12 (100,0%)



the information about the course when it started?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (16,7%)
4	5 (41,7%)
5	5 (41,7%)
Total	12 (100,0%)



the information about what was expected of you?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	3 (25,0%)
4	5 (41,7%)

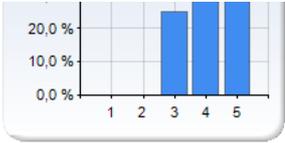


5

Total

4 (33,3%)

12 (100,0%)



Comment (help us interpret your grades!)

Jag tycker att det har varit för mycket hoppande i läroboken. Detta tycker jag generellt är dåligt eftersom det känns som att man "behöver" läsa alla kapitel innan för att förstå innehållet. Även då detta inte är sant så kan det säkert ha någon inverkan på hur läsaren uppfattar texten. Författaren bör ju rimligtvis stega upp svårighetsnivån efterhand som man kommer längre och förhoppningsvis bör det finnas en röd tråd genom boken. På sikt kanske det skulle vara möjligt att trycka upp egna häften som kurslitteratur. Då skulle man inte behöva hoppa över så mycket och det skulle bli en mer nischad och relevant text. Inlämningsuppgifterna tycker jag i stort inte gav så mycket. Ofta blev uppgifterna mer eller mindre ett matematiskt problem som skulle lösas och gav ingen djupare förståelse till fysiken bakom. Kanske skulle man kunna ha en inlämningsuppgift där studenten ombads diskutera och förklara vissa termer. Tentan tyckte jag inte riktigt om. I princip alla uppgifterna hade den formen att delfrågor krävde svar från tidigare delfrågor. T.ex. kunde jag inte lösa 1.b) och kunde därför inte heller lösa 1.c). Det samma gällde 4.a) och 4.c). Över lag tyckte jag ändå att det var en bra nivå på tentan och att uppgifterna hade en jämn svårighetsnivå. Jag skulle dock hellre fått fler uppgifter med färre poäng.

The only problems I had was the book which I found a bit difficult to understand at times (but considerably easier with the support of lecture notes) and it was so BIG! The exercises were slightly too difficult I think, I felt pretty inadequate at times when not able to finish even a majority of the problem after two hours. At the same time they were a tough challenge and required you to think hard and focus which in turn was great. I don't think i've ever had such great and inspiring professors- so hat's off to you two! I found the literature a bit wordy, meaning that I felt that it was unnecessary much text for the information given in every chapter. But then you always picked out the essentials during the lectures so that it was still alright in the end. I believe that the problem solving sessions together with the hand-ins were a great way to did deeper into problems of fluid dynamics. Though, I think four problem solving sessions would have been sufficient and perhaps for future courses you could try to base the degree of difficulty of the questions during the problemsolving sessions on the degree of difficulty on the final exam (though I understand that it would be hard to find so many exercises of that degree to every problem solving session).

That math was so important for this course was a surprise

It's good that the course content is relevant also for non-meteorology students. The book is nice and mostly understandable but has a lot of type errors. Lectures were great. The exercises were mixed, some too easy and some too involved. The format of problem sessions with group work and presentation was good. I think that writing your own formula sheet for the exam is a bad idea, it's too easy to miss something important. But don't get it wrong, writing your own summary of the course is a very good study technique that I do with most courses and should really be encouraged.

Det var svårt att koppla ihop teorin med frågorna på tentan, det hade varit bra att få lite fler "tentauppgifter" att öva på innan. Jag hade även lärt mig mer av att bara sitta och räkna flera uppgifter på räkneövningarna och få hjälp med de man hade svårt för istället för att titta på redovisningar från andra studenter, det var inte alltid helt lätt att hänga med. Föreläsningarna var bra och lätta att hänga med i, tillsammans med boken lärde man sig teorin bra. Men några fler räkneuppgifter hade som sagt varit bra för förståelsen.

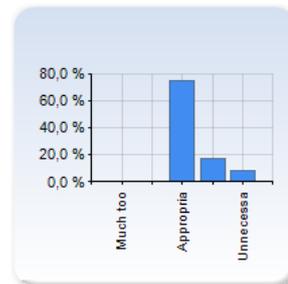
Very good course. Lautrup had some defects when it came to the exercises. Some issues about the formula sheet.

The focus of the course.

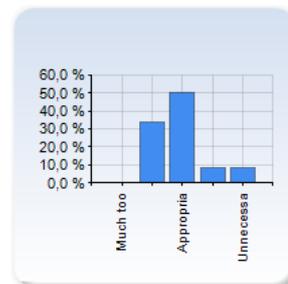
Below are learning goals from the course plan. Mark how much focus these goals got during the course, compared to what you feel would be needed.

"The student..."

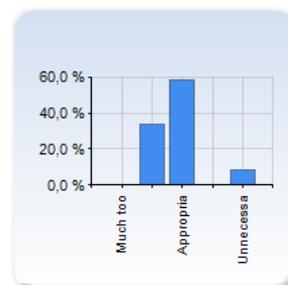
can work with tools from vector calculus, and use basic integral relations	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	9 (75,0%)
Unnecessarily high focus	2 (16,7%)
Total	12 (100,0%)



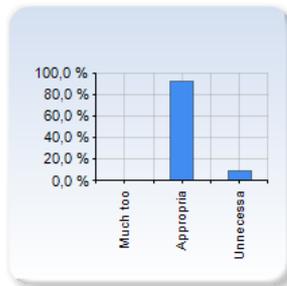
can give conditions for, and describe properties of, hydrostatic equilibrium	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	6 (50,0%)
Unnecessarily high focus	1 (8,3%)
Total	12 (100,0%)



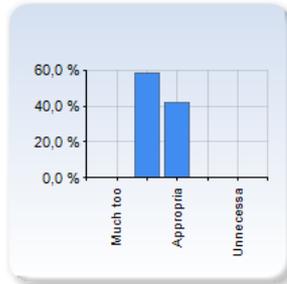
can explain the meaning of the Reynolds number, and when viscosity is important	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	7 (58,3%)
Unnecessarily high focus	1 (8,3%)
Total	12 (100,0%)



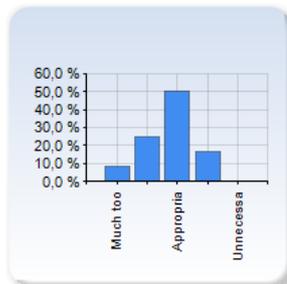
can interpret the different terms in the Navier-Stokes equations	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	11 (91,7%)
Unnecessarily high focus	1 (8,3%)
Total	12 (100,0%)



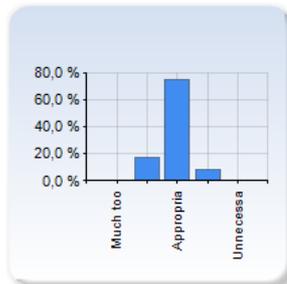
can outline some basic properties of turbulence	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	7 (58,3%)
Unnecessarily high focus	0 (0,0%)
Total	12 (100,0%)



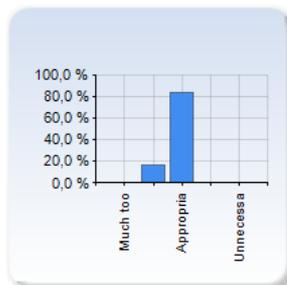
can calculate equilibrium states for hydrostatic atmospheres	Number of Responses
Much too low focus	1 (8,3%)
Appropriate	6 (50,0%)
Unnecessarily high focus	0 (0,0%)
Total	12 (100,0%)



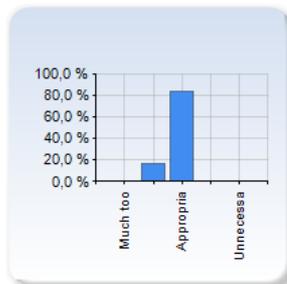
can describe the origin of centrifugal- and Coriolis forces	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	9 (75,0%)
Unnecessarily high focus	0 (0,0%)
Total	12 (100,0%)



can apply laws of mechanics on continuous systems and work with velocity fields	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	10 (83,3%)
Unnecessarily high focus	0 (0,0%)
Total	12 (100,0%)

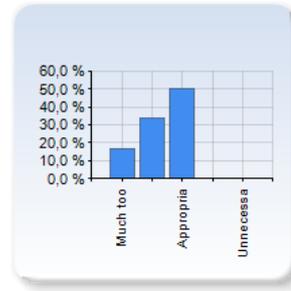


can do applications of Coriolis forces on flows in rotating systems	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	10 (83,3%)
Unnecessarily high focus	0 (0,0%)
Total	12 (100,0%)



can calculate geostrophic flow from a pressure field and evaluate under what assumptions this is a good approximation to the flow

	Number of Responses
Much too low focus	2 (16,7%)
Appropriate	4 (33,3%)
Unnecessarily high focus	6 (50,0%)
	0 (0,0%)
Total	12 (100,0%)



Comment

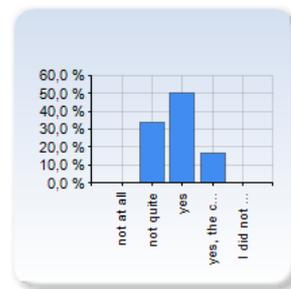
Everything was great, I guess why I haven't put it at "appropriate" all the way through is because I believe you cannot stress things enough haha. Could as well have been "appropriate"

It is good that the course begin with som vector/field calculus. For the rest I feel it would be easier to get an overview if the Navier-Stokes/Euler equation was presented as early as possible (except the coriolis things then), it is nicer to start from something complicated and discuss simplifications rather than start from something simple and week after week introduce new complications. It is good that you emphasize that the viscosity-terms in Navier-Stokes are not part of the fundamental equations.

Det hade varit bra att få räkna fler uppgifter med t.ex. den geostrofiska vinden innan tentan, det var svårt att klara vissa uppgifter som vi inte hade räknat så mycket på innan.

Did you have enough prior knowledge for this course?

Did you have enough prior knowledge for this course?	Number of Responses
not at all	0 (0,0%)
not quite	4 (33,3%)
yes	6 (50,0%)
yes, the course was a bit easy	2 (16,7%)
I did not really learn anything new	0 (0,0%)
Total	12 (100,0%)



If your prior knowledge was not fairly appropriate, please comment!

What prior knowledge was missing/overlapping?

What is your background (year of higher education, relevant courses)?

I think physics2 was like taking a swim in an ocean of knowledge where things get understood enough to pass but very easily forgotten. I don't think it's just me thinking this way. I felt very insecure at most parts of this course but it was given in such a student friendly way which made it easier to absorb.

I did not know anything about the Nabla-operator before the course but you taught us that well during the first week so now we know it!

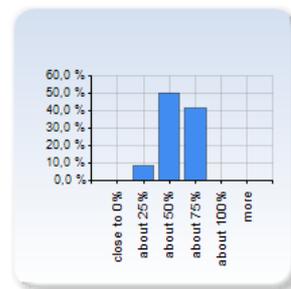
I'm in the 4th year and have done mainly physics courses. Even so the overlapp is surprisingly small. This course actually spent more time on the curl operator than all my previous courses put together (it was flasched for a split-second in physics 2, and that's all...)

Efter första räkneövningen så trodde jag aldrig att jag skulle klara kursen. Men efter lite repetition av matten så gick det bättre och bättre. Men det vore bra att dela ut fler repetitionsuppgifter på den matematiken som ingår i kursen, inte bara på vektorer och skalärer. Även om man har gått igenom det på tidigare kurser så kan det vara svårt att komma ihåg allt. En del går man inte igenom så noga, och då sitter det inte heller så bra. Algebran har vi knappt använt någonting sen kursen förra våren, så där kände man sig lite rostig.

3rd year of bachelor, I already had a course in Fluid dynamics.

How much time have you spent on this course? (100% means 9-10 weeks, 20 hours per week, adding up to roughly 25 work-days)

How much time have you spent on this course? (100% means 9-10 weeks, 20 hours per week, adding up to roughly 25 work-days)	Number of Responses
close to 0%	0 (0,0%)
about 25%	1 (8,3%)
about 50%	6 (50,0%)
about 75%	5 (41,7%)
about 100%	0 (0,0%)
more	0 (0,0%)
Total	12 (100,0%)



Comment

I spent the time I possibly could, with too much stress at home it becomes difficult not only to get the time available but also study at that time.

There weren't too many exercises from the book so I was worried I'd become a bit lazy, but then the hand-ins always kept us allert and I felt they were based on the essentials of the course so I think you should keep those up during future courses.

Mindre i början av kursen, och mycket mer i slutet. Det var lite svårt att veta vad man skulle börja plugga på i början, hade man fått lite fler uppgifter att räkna på då så hade man nog känt pressen och kommit igång lite bättre. Sedan kan man kanske dra ner lite på uppgifterna närmare tentan.

What did you particularly like with the course?

What did you particularly like with the course?

The content and the new things you learned!

The way both of you clearly stated what equations did, you took time to DESCRIBE them and many examples IRL. Many teachers skip that..

The professors! I also enjoyed the field a lot, in fact so much that I'm thinking that if I don't choose a carrier in meteorology I might consider fluid dynamics. This is the kind of physics I would like to know!

The structure, lectures and the content.

The exercise sessions and the hand-in's.

Actually most of it.

Teoridelen. Föreläsningarna och att man lätt kunde få svar på sina frågor.

I already had a course in Fluid dynamics last year but with a different approach (rather focused on systems using fluid such that turbines, planes, pumps). I appreciated this year the application on meteorology and winds.

The only one in the field at LU! Almost everything was great.

What in the course do you think could improve?

What in the course do you think could improve?

The problem-solving sessions. The amount of exercises should be higher and more focus should lie on solving different types of exercises. I felt I didn't get enough exercise in calculating problems which made the exam hard. You should always solve every problem fully on the board for those who have a hard time with calculations.

To be honest, I am perfectly happy with it. I guess you guys will find it easier till next time how to lay out the course material (since you introduced formulas etc. and later on stumbled upon applications haha). Thank you!

More exercises similar to the ones on the final exam.

A bit too much focus of math.

The level of some of the exercise in order to be well prepared for the final exam.

The order in which things are presented, and maybe some more on turbulence.

Mer tid för problemlösning med handledning

Räknedelen. Att redan i början visa hur tentan kommer vara uppbyggd och att ha dela ut fler räkneuppgifter, eftersom tentan består av sådana uppgifter.

I would recommend against the method of making your own cheat-paper. Either: Have the students build their formula sheet throughout the problem-solving sessions, or have a already finished formula sheet. Another option: State a lot more clearly that having your own formula sheet is a vital part of the exam.