

## FYTA14 vt14

Respondents: 14  
Answer Count: 8  
Answer Frequency: 57,14 %

### General opinion

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

4 = positive

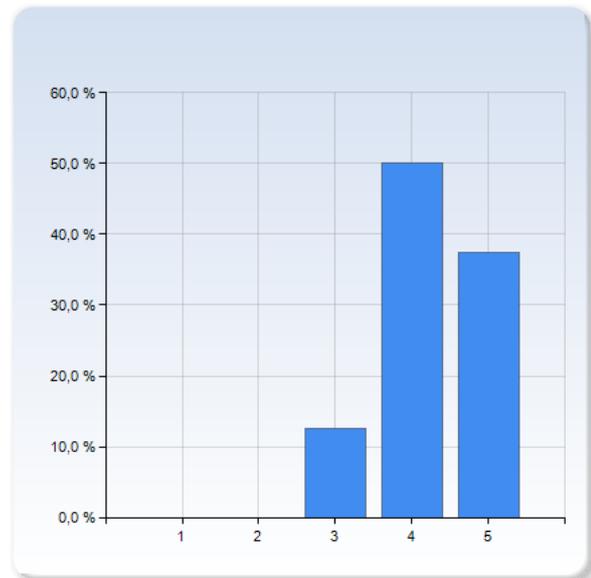
5 = very positive

***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?

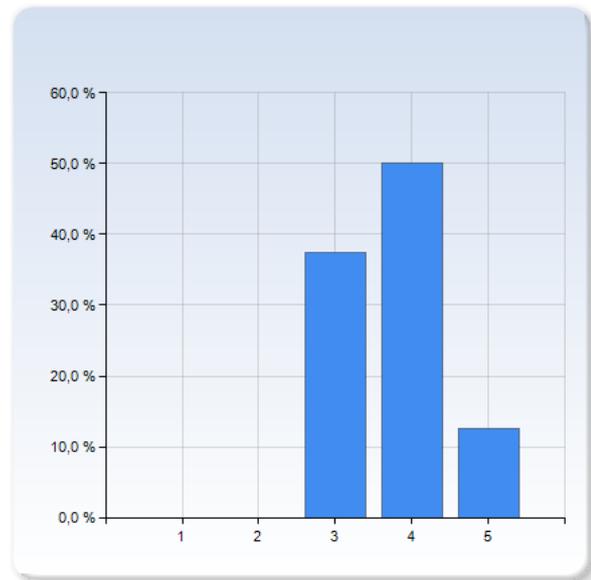
the course?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (12,5%)
4	4 (50,0%)
5	3 (37,5%)
Total	8 (100,0%)



the course?	Mean	Standard Deviation
	4,3	0,7

### "Physics of Continuous Matter" by Lautrup?

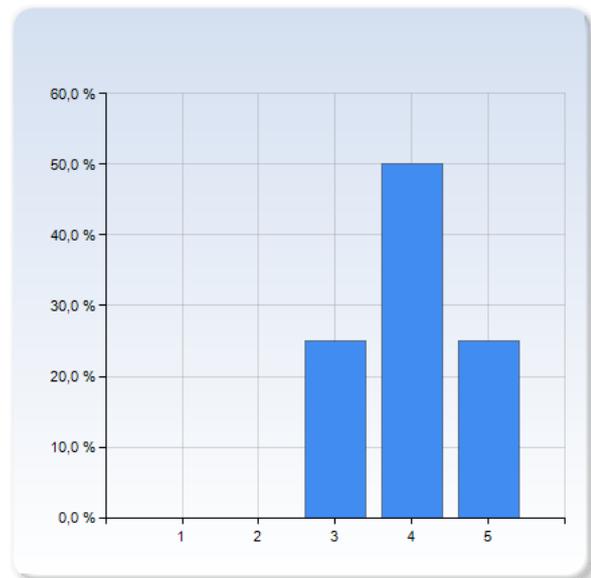
"Physics of Continuous Matter" by Lautrup?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	3 (37,5%)
4	4 (50,0%)
5	1 (12,5%)
Total	8 (100,0%)



"Physics of Continuous Matter" by Lautrup?	Mean	Standard Deviation
	3,8	0,7

### the information about the course when it started?

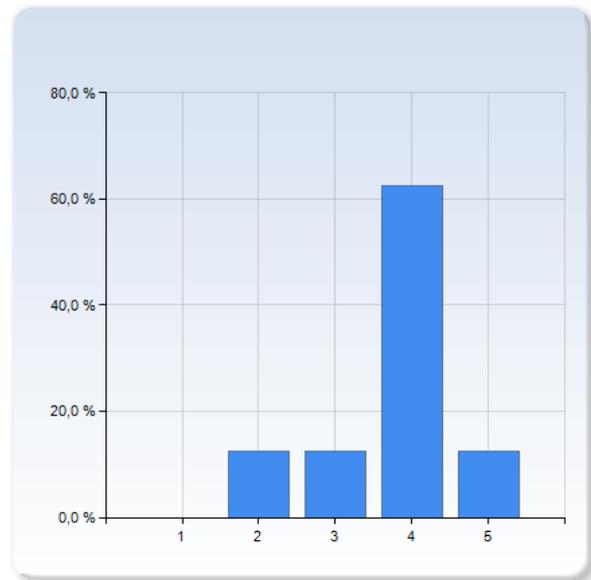
the information about the course when it started?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (25,0%)
4	4 (50,0%)
5	2 (25,0%)
Total	8 (100,0%)



the information about the course when it started?	Mean	Standard Deviation
	4,0	0,8

## the information about what was expected of you?

the information about what was expected of you?	Number of Responses
1	0 (0,0%)
2	1 (12,5%)
3	1 (12,5%)
4	5 (62,5%)
5	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
the information about what was expected of you?	3,8	0,9

### Comment (*help us interpret your grades!*)

Bra föreläsare, tydliga anvisningar på vad som var viktigt i kursen, vad vi förväntades ha för förkunskaper osv. Boken var trevlig & lättförståelig. I think the information in the beginning of the course was good and the study plan on the homepage gave a good overview of what was important during the course.

The book as such is not bad at all, but for this course it is way too big. Only a very small fraction of it has actually been talked about. Of course it is never bad to have a book at hand where one can look up more elaborate things, but one also has to buy it and, even worse, carry it. This book is of such a size that it should be standing in a library but not at all carried back and forth by students. Noone keeps the interested students from having more than one book, but for an introductory course, a smaller book would have been more appropriate.

I took the course last year so I am a bit unclear on some questions (that is why I put 3: neutral), but I really enjoyed the course last year!

The book was good, but did not explain everything in a good way.

In the end of the course I was not sure what I was supposed to know from the course.

## Lectures and problem solving sessions

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

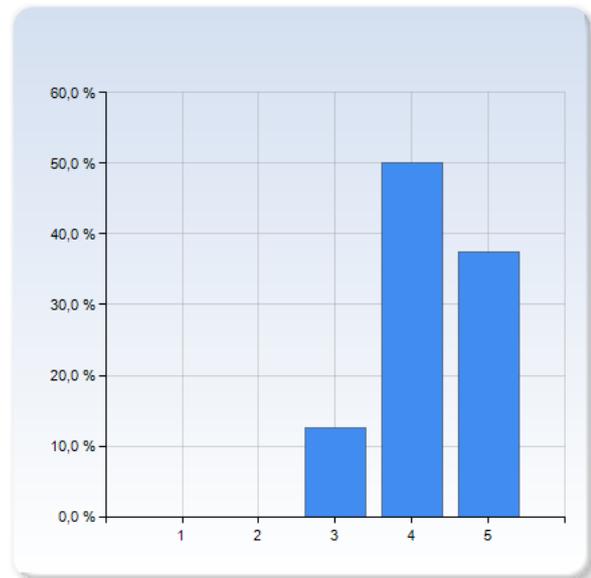
4 = positive

5 = very positive

What is your general opinion of...

the lectures with Patrik Edén?

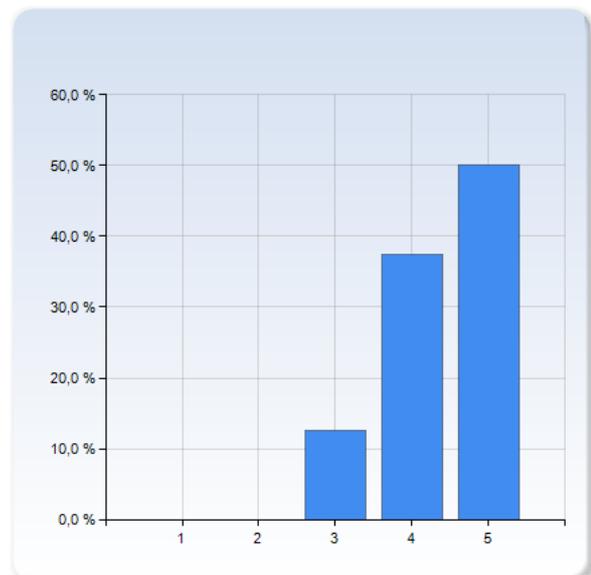
the lectures with Patrik Edén?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (12,5%)
4	4 (50,0%)
5	3 (37,5%)
Total	8 (100,0%)



the lectures with Patrik Edén?	Mean	Standard Deviation
	4,3	0,7

the lectures with Erik Wahlén?

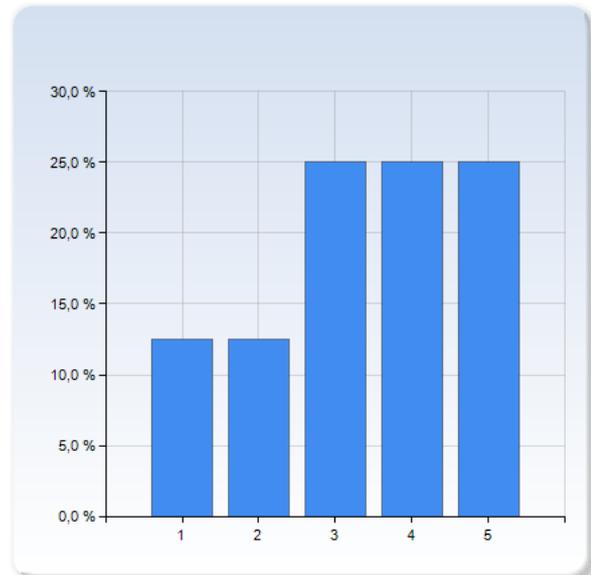
the lectures with Erik Wahlén?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (12,5%)
4	3 (37,5%)
5	4 (50,0%)
Total	8 (100,0%)



	Mean	Standard Deviation
the lectures with Erik Wahlén?	4,4	0,7

### the format of the problem solving sessions?

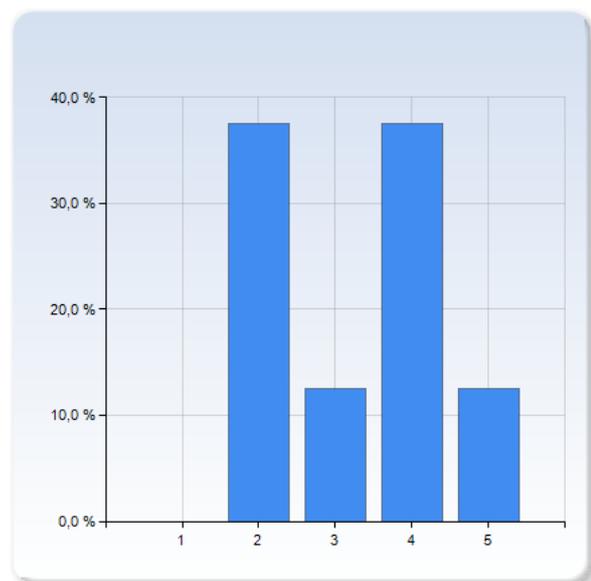
the format of the problem solving sessions?	Number of Responses
1	1 (12,5%)
2	1 (12,5%)
3	2 (25,0%)
4	2 (25,0%)
5	2 (25,0%)
Total	8 (100,0%)



	Mean	Standard Deviation
the format of the problem solving sessions?	3,4	1,4

### the exercises at the problem solving sessions?

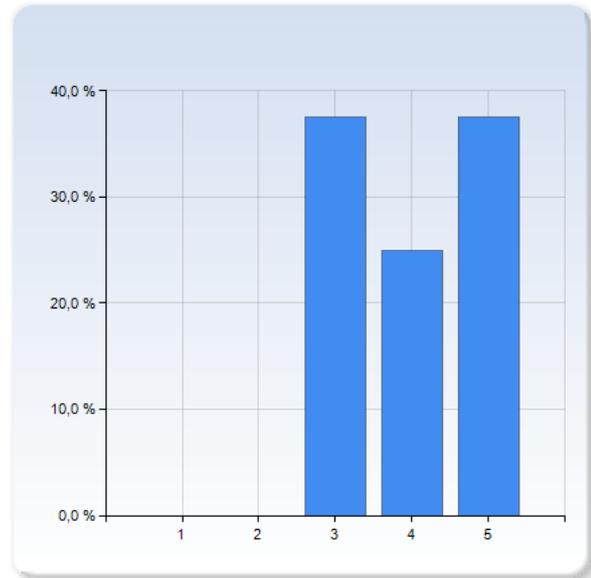
the exercises at the problem solving sessions?	Number of Responses
1	0 (0,0%)
2	3 (37,5%)
3	1 (12,5%)
4	3 (37,5%)
5	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
the exercises at the problem solving sessions?	3,3	1,2

## the balance between lectures and problem-solving sessions?

the balance between lectures and problem-solving sessions?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	3 (37,5%)
4	2 (25,0%)
5	3 (37,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
the balance between lectures and problem-solving sessions?	4,0	0,9

### Comment (*help us interpret your grades!*)

Problem solving sessions var bra, framförallt att lösa slumpmässigt valda uppgifter tillsammans med andra. Redovisningarna kanske inte var jättegivande alltid. Ofta svårt att förklara själv om man inte har 100 % koll och precis löst uppgiften (ibland svåra), och svårt att hänga med i andras redovisningar pga samma anledning

Problem solving sessions where you can get help with what you think is difficult would have been more useful than how they were now. Also more time to get help is always good. The problems in the book are very difficult and the "hints" at the end of the book usually are not enough to get an understanding. It feels like there is a big jump between the theory in the book and how you would actually solve problems, so maybe more (thorough) examples in the lectures.

The lectures were good and inspiring. It was sometime a bit hard to follow the structure of Patrik's lectures when you had read in the book before.

I really like problem solving sessions and would therefore have preferred to have some more sessions during the semester. The problems given at the sessions were sometimes a bit tricky and people did not have time to solve them completely which I do not think is very good. In general, it was quite hard to understand the exercises presented on the board.

The lectures were excellent with many clear explanations. Also the format of problem solving (i.e. doing tasks in teams) was just what was needed because this way the students could explain things to each other (explaining it to someone else teaches you much more than solving it alone).

The exercises themselves could have been more theoretical and less about weather and Coriolis force but that is a personal opinion. Solving actual flow problems like around a ball etc. would have been more interesting.

Fler exempel på uppgifter under föreläsningar.

I did not attend any lectures or problem solving sessions this year, but again I enjoyed all lectures last year with both Patrik and Erik!

Patrik is a creative and inspiring lecturer, while Erik has more structured and clearer lectures.

It is nice to get to solve exercises, but it is less nice to get exercises that take too long time to solve properly.

## Examination

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

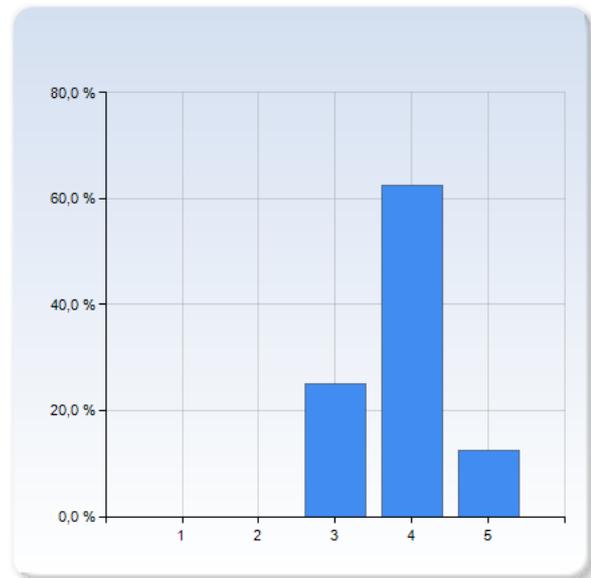
4 = positive

5 = very positive

What is your general opinion of...

the hand-in exercises?

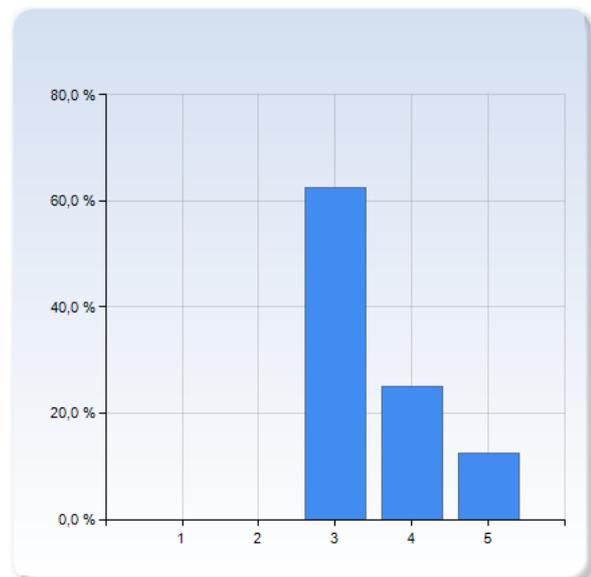
the hand-in exercises?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (25,0%)
4	5 (62,5%)
5	1 (12,5%)
Total	8 (100,0%)



the hand-in exercises?	Mean	Standard Deviation
	3,9	0,6

the written exam?

the written exam?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	5 (62,5%)
4	2 (25,0%)
5	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
the written exam?	3,5	0,8

**Comment (help us interpret your grades!)**

Vissa inlämningar kändes inte relevanta i jämförelse med tentan. Detta varierade dock.

Tentan var nog ganska heltäckande för kursen, men en hel del uppgifter kändes som om de hade väldigt lika lösningsmetoder. (eller så har jag fel..)

Felt like the time to write the exam was a bit short, did not have time to change errors I found when I look it through in the end.

Also some of the hand ins were very difficult. I spent several days on some of them, days that maybe could have been better used to solve a lot of simpler problems (if there were any).

I think the hand-ins gave a good understanding of important parts of the course.

I enjoyed the exam and liked that we got to write our own formula sheet.

Generally, this was ok.

I think it is always difficult to comment on whether an exam is good or not, but I passed this one so then I guess I liked it. However, I would like to stress that I have never thought ill about the previous exams that I did not pass. This has been a difficult course, but a very necessary one and this sort of physics is truthfully the kind I enjoy the most!

Hand-in exercises were motivating.

Written exam was surprisingly difficult.

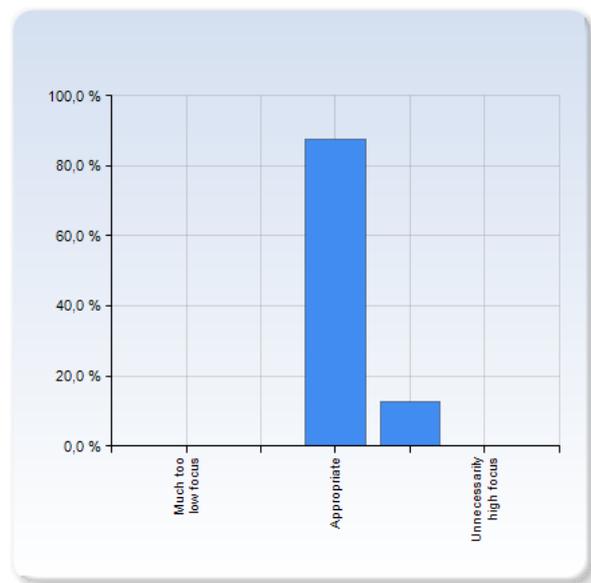
## The focus of the course.

**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

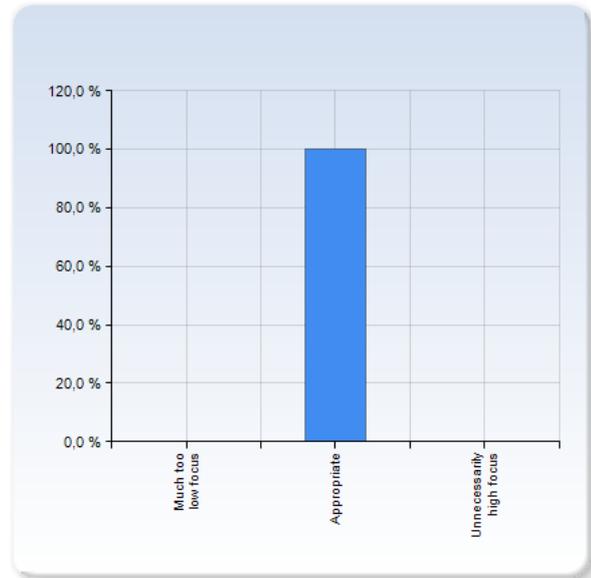
can work with tools from vector calculus, and use basic integral relations	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	7 (87,5%)
Unnecessarily high focus	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
can work with tools from vector calculus, and use basic integral relations	3,1	0,4

### can give conditions for, and describe properties of, hydrostatic equilibrium

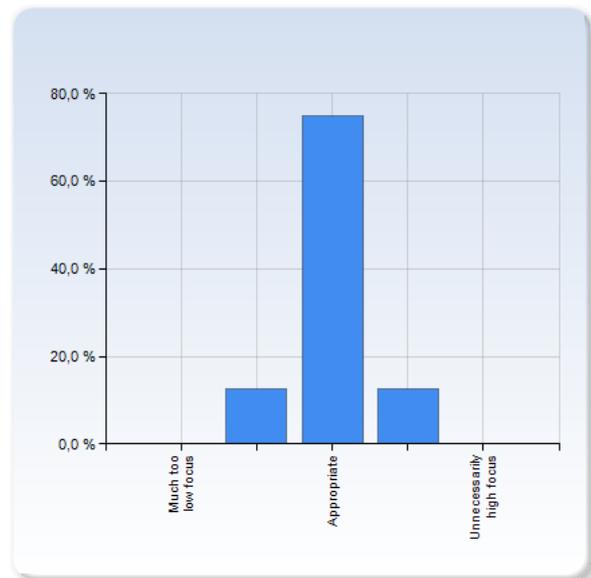
can give conditions for, and describe properties of, hydrostatic equilibrium	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	8 (100,0%)
Unnecessarily high focus	0 (0,0%)
Total	8 (100,0%)



	Mean	Standard Deviation
can give conditions for, and describe properties of, hydrostatic equilibrium	3,0	0,0

### can explain the meaning of the Reynolds number, and when viscosity is important

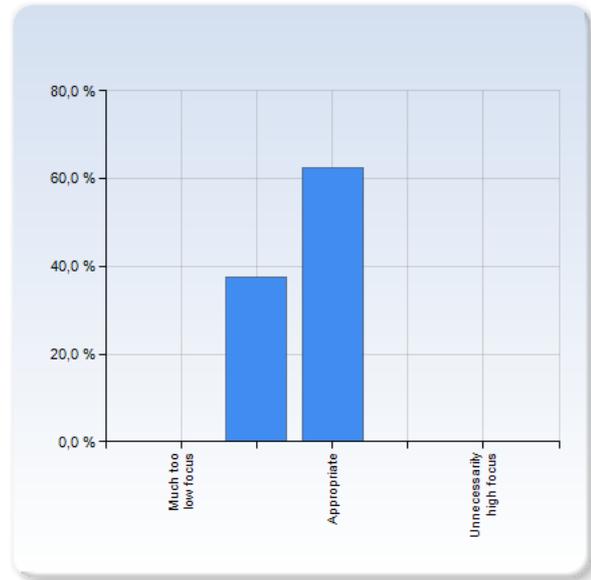
can explain the meaning of the Reynolds number, and when viscosity is important	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	6 (75,0%)
Unnecessarily high focus	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
can explain the meaning of the Reynolds number, and when viscosity is important	3,0	0,5

### can interpret the different terms in the Navier-Stokes equations

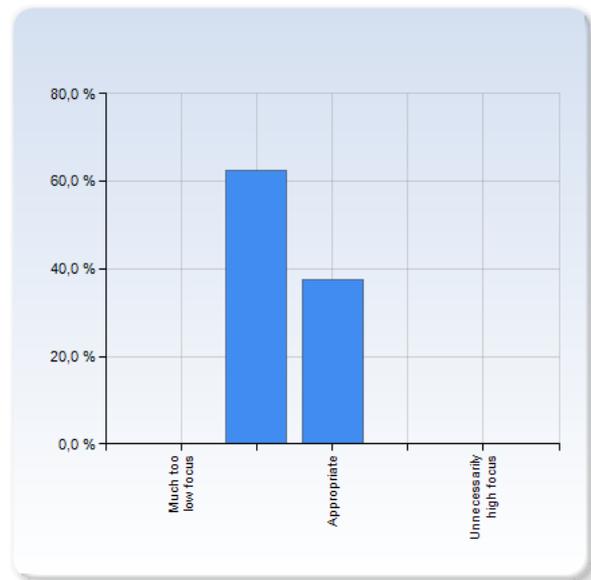
can interpret the different terms in the Navier-Stokes equations	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	3 (37,5%)
Unnecessarily high focus	5 (62,5%)
Total	8 (100,0%)



can interpret the different terms in the Navier-Stokes equations	Mean	Standard Deviation
	2,6	0,5

### can outline some basic properties of turbulence

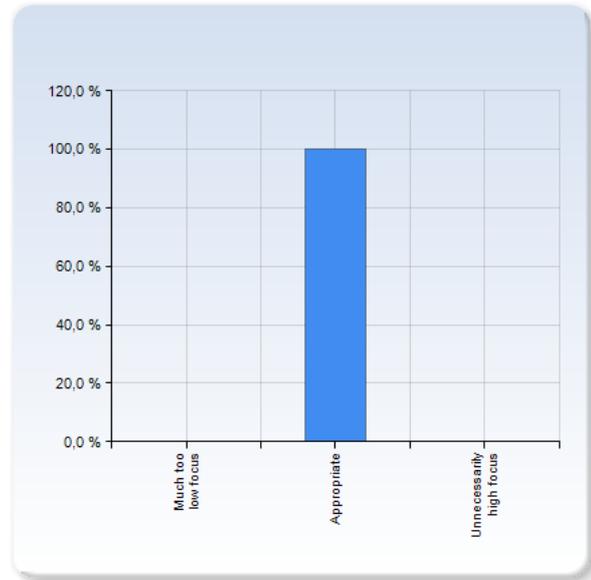
can outline some basic properties of turbulence	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	5 (62,5%)
Unnecessarily high focus	3 (37,5%)
Total	8 (100,0%)



can outline some basic properties of turbulence	Mean	Standard Deviation
	2,4	0,5

### can calculate equilibrium states for hydrostatic atmospheres

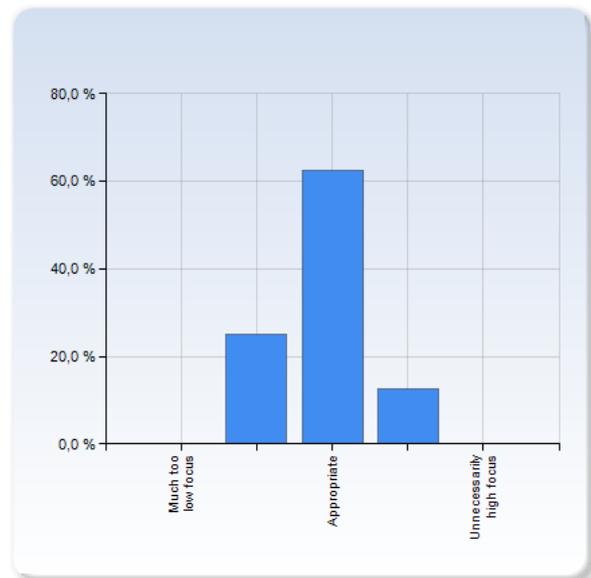
can calculate equilibrium states for hydrostatic atmospheres	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	8 (100,0%)
Unnecessarily high focus	0 (0,0%)
Total	8 (100,0%)



	Mean	Standard Deviation
can calculate equilibrium states for hydrostatic atmospheres	3,0	0,0

### can apply laws of mechanics on continuous systems and work with velocity fields

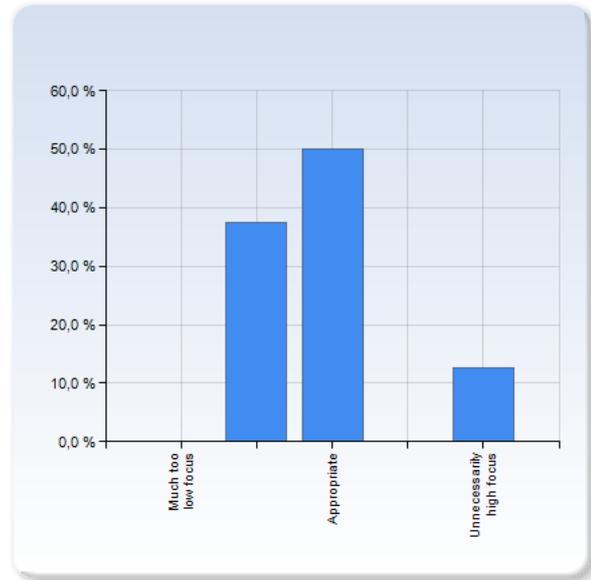
can apply laws of mechanics on continuous systems and work with velocity fields	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	5 (62,5%)
Unnecessarily high focus	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
can apply laws of mechanics on continuous systems and work with velocity fields	2,9	0,6

### can describe the origin of centrifugal- and Coriolis forces

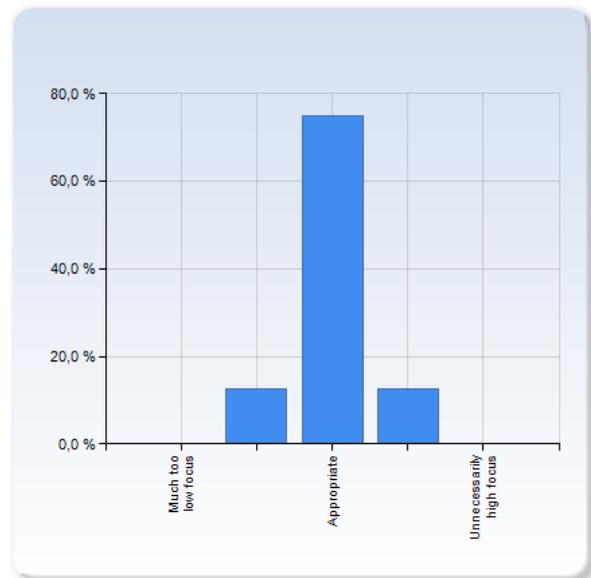
can describe the origin of centrifugal- and Coriolis forces	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	4 (50,0%)
Unnecessarily high focus	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
can describe the origin of centrifugal- and Coriolis forces	2,9	1,0

### can do applications of Coriolis forces on flows in rotating systems

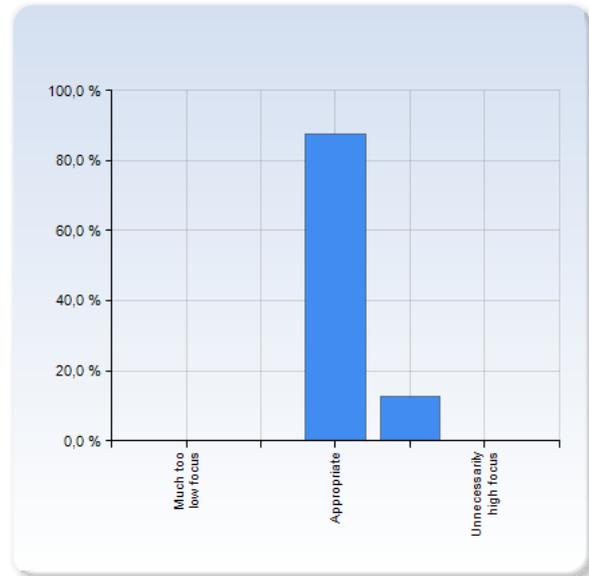
can do applications of Coriolis forces on flows in rotating systems	Number of Responses
Much too low focus	0 (0,0%)
Appropriate	6 (75,0%)
Unnecessarily high focus	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
can do applications of Coriolis forces on flows in rotating systems	3,0	0,5

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

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	0 (0,0%)
Appropriate	7 (87,5%)
Unnecessarily high focus	1 (12,5%)
Total	8 (100,0%)



can calculate geostrophic flow from a pressure field and evaluate under what assumptions this is a good approximation to the flow	Mean	Standard Deviation
	3,1	0,4

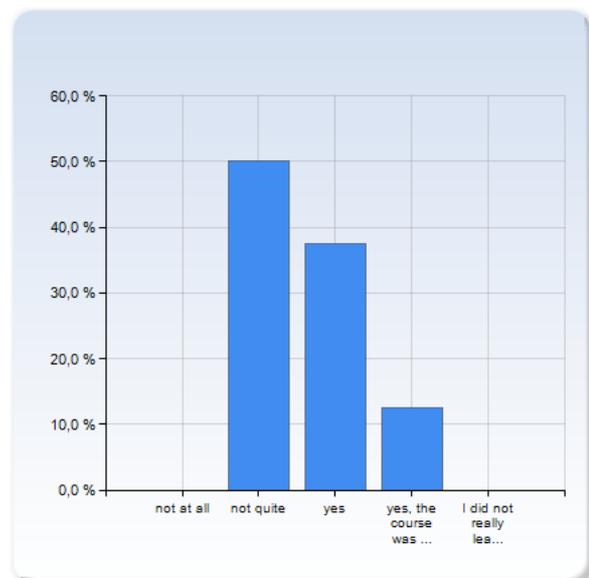
### Comment

There has been very much focus on Coriolis forces. Aren't Coriolis and centrifugal forces known from some theoretical mechanics course before? Surely it is important for weather systems, but generally there are much more interesting things in fluid dynamics than Coriolis force which acts just the same way it always did. Especially the (rather long) derivation of it was totally unnecessary, one could e.g. have discussed drag of different bodies instead, i.e. a fluid dynamics problem. We did not derive constantness of gravity or the origin of polytropic gas either, why then Coriolis force?

Again, I did not attend the lectures this year, but I think the chapters in the book considers all these fields to an appropriate level.

## 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 (50,0%)
yes	3 (37,5%)
yes, the course was a bit easy	1 (12,5%)
I did not really learn anything new	0 (0,0%)
Total	8 (100,0%)



Did you have enough prior knowledge for this course?	Mean	Standard Deviation
	2,6	0,7

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)?

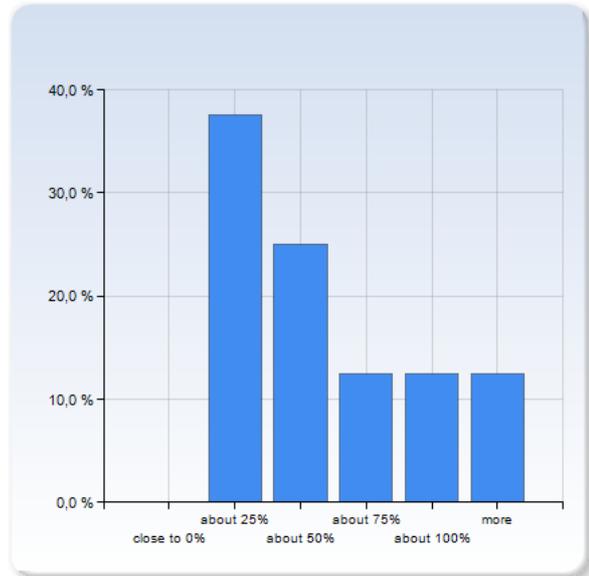
I would like to have had more knowledge in vector calculus before starting this course.

Obviously, I have had some issues with passing this exam. I've always enjoyed calculus mathematics (even though I've found it hard), but when I took this course last year I had not passed the calculus exam. I passed it in August last year and I think that might have contributed to me passing this exam now.

There was a lot of new words and concepts that I was not familiar with.  
I'm a 2nd year student.

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

How much time have you spent on this course? (100% means 20 hours per week for 9-10 weeks, adding up to roughly 25 work-days)	Number of Responses
close to 0%	0 (0,0%)
about 25%	3 (37,5%)
about 50%	2 (25,0%)
about 75%	1 (12,5%)
about 100%	1 (12,5%)
more	1 (12,5%)
Total	8 (100,0%)



	Mean	Standard Deviation
How much time have you spent on this course? (100% means 20 hours per week for 9-10 weeks, adding up to roughly 25 work-days)	3,4	1,5

### Comment

Kanske lite mindre, borde varit uppåt 75 för att hinna med att förbereda optimalt & repetera/räkna efter föreläsning.

This was the only course I took this period, so I spent about full time only on this one. It is a very difficult course and the problems take so long to understand!

Between 50-75%, so too little!

Regrettably, as I have written my bachelor thesis this semester (and because I was deeply involved in the Lundakarnevalen) I only spent real sufficient time on this course the last two weeks before the exam. But then of course, I remembered much from last year.

## What did you particularly like with the course?

What did you particularly like with the course?

Den hade en röd tråd även om den var hoppig! Problem solving sessions, givande föreläsningar. Överlag bra!

The examples of how to solve the old exams! Very good and where I learned the most! Just wish we would have gotten them earlier and also examples of how to solve the pdf-problems.

The enthusiasm of the professors!

I really enjoyed the subject and that it contained a lot of math. I also enjoyed having so engaged teachers.

To get a rather convincing derivation of Navier Stokes equation.

That the course was small and somewhat personal.

There has been quite a lot additional material like the papers about rotation and the vorticity-meter.

Entusiasmen från er föreläsare

Last year I really enjoyed the teachers Patrik and Erik! Their lectures were very pedagogical! Then, as I've already stated, I really enjoy this type of physics.

I liked that the course was not just lectures, but also problem solving sessions and hand-ins. The lecturers seemed to care about the students and the quality of the course and lectures.

## What in the course do you think could improve?

What in the course do you think could improve?

Utöver problem solving sessions, kanske en räknestuga 1 dag/vecka. Inte nödvändigtvis med föreläsaren, äldre student insatt i ämnet fungerar också. Huvudpoängen är att om det införs, ta inte bort föreläsningstid (dvs inget läs-in-kapitlet på egen hand)!

In the lectures: write down the explanations to the equations! when you just say them we don not have time to write them down (and if we try to we miss what you are saying) Unfortunately I have not had much use for my lecture notes because they are just full of equations and I can not follow what we have done. I do realise that this is a two sided coin and that I need to learn to take better notes, but until then: explanations is always helpful, to many eqautions just gets confusing.

More problem solving sessions! But we all learn differently and I am a person who learn best by doing calculations.

If it turns out people have problems with basic vector and field calculus, maybe one could do more problems like "Here is a field, compute the rotation" in the beginning. This should not replace the problems done, but be additional. Of course it would be additional work, but I often get the impression that it helps students a lot if they can easily use all those operators. Because otherwise the focus often lies on "what is this triangle and how do I get a number out of it" instead of the interesting physics content, making it difficult to follow the course. These things have all been said in the beginning, but just hearing them is simply not enough. But on the other hand maybe prior courses (dealing just with mathematical methods) could have provided more training as it is not content of fluid dynamics to teach the students basic math.

Räkneövningarna. Man borde få sitta själv och räkna, för att sedan kunna be om hjälp om det behövs.

More collaboration with the meteorology course; some topics were similar and connected to the topics in the meteorology course, but they were not so clear and different notations were used, made it quite confusing.

## Other comments (both positive and negative) on the course?

Other comments (both positive and negative) on the course?

Kunde varit än mer sammankopplad med meteorologin (även om det är andra som läser den också), antar att det var anledningen till att kursen startades upp här i lund..?

The long equation presented during the summary lecture should be presented during the first lecture I think. Even though the students will not understand it, it is good to see the "goal" of the course.

It was nice always being in the same room, that saved time to look and think about it.