

FYTA12 EM vt14

Antal respondenter: 15
Antal svar: 10
Svarsfrekvens: 66,67 %

General opinion

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

4 = positive

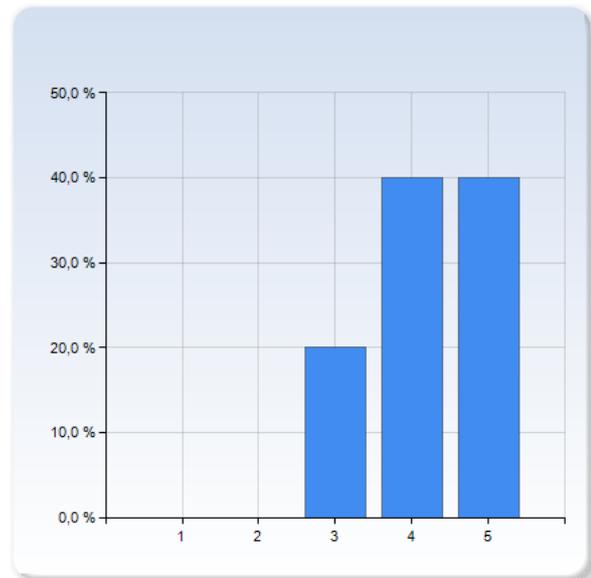
5 = very positive

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?

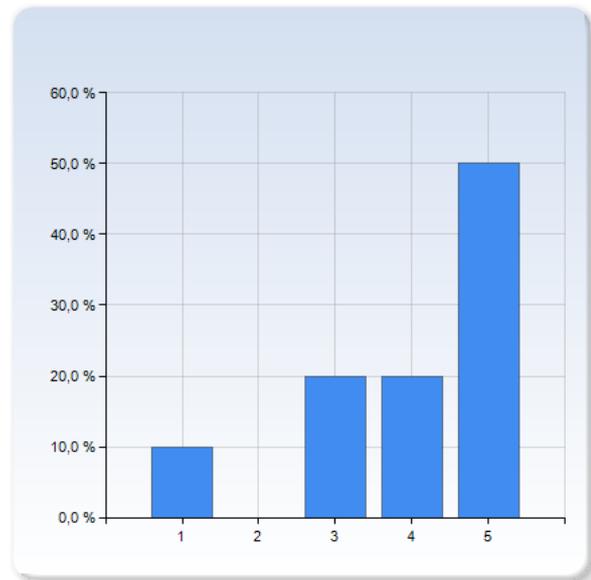
the course?	Antal svar
1	0 (0,0%)
2	0 (0,0%)
3	2 (20,0%)
4	4 (40,0%)
5	4 (40,0%)
Summa	10 (100,0%)



the course?	Medelvärde	Standardavvikelse
	4,2	0,8

"Introduction to Electrodynamics" by Griffiths?

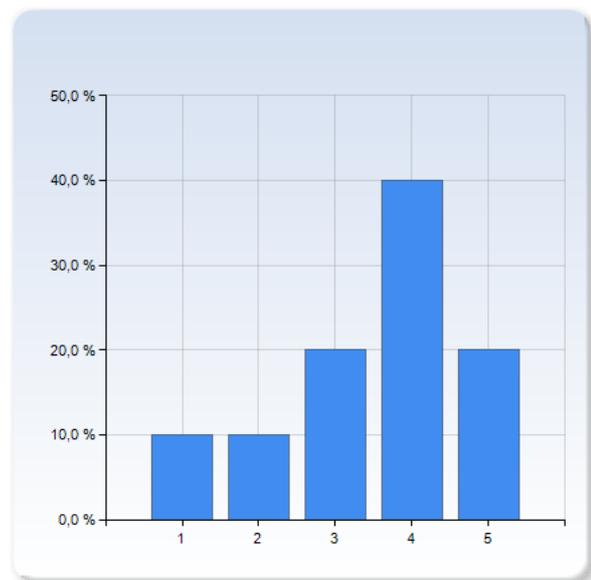
"Introduction to Electrodynamics" by Griffiths?	Antal svar
1	1 (10,0%)
2	0 (0,0%)
3	2 (20,0%)
4	2 (20,0%)
5	5 (50,0%)
Summa	10 (100,0%)



"Introduction to Electrodynamics" by Griffiths?	Medelvärde	Standardavvikelse
	4,0	1,3

the information about the course when it started?

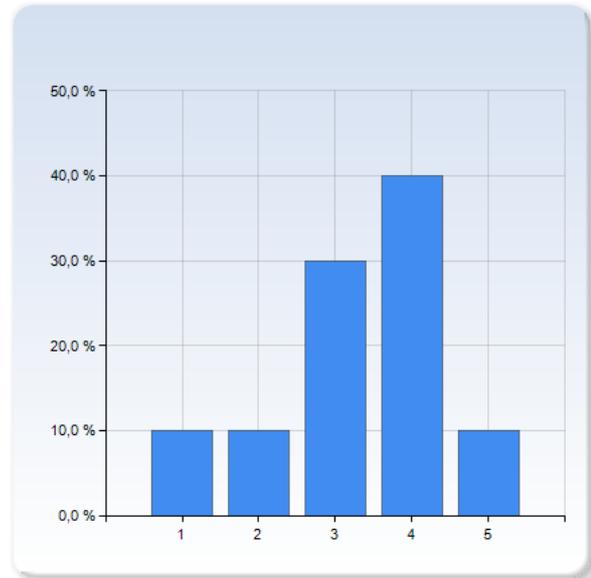
the information about the course when it started?	Antal svar
1	1 (10,0%)
2	1 (10,0%)
3	2 (20,0%)
4	4 (40,0%)
5	2 (20,0%)
Summa	10 (100,0%)



the information about the course when it started?	Medelvärde	Standardavvikelse
	3,5	1,3

the information about what was expected of you?

the information about what was expected of you?	Antal svar
1	1 (10,0%)
2	1 (10,0%)
3	3 (30,0%)
4	4 (40,0%)
5	1 (10,0%)
Summa	10 (100,0%)



the information about what was expected of you?	Medelvärde	Standardavvikelse
	3,3	1,2

Comment (*help us interpret your grades!*)

The book was not very affordable, and older versions of it were hard to find even on internet stores. It was a problem that not even the library had the correct version, but only international editions. The book itself was good though, with lots of examples, and it was easy to find everything in it.

It could be made slightly clearer just how heavy a course this is.

Boken är spretig och oöverskådlig. Innehåller många ord och ekvationer som egentligen bara är en smula ändrade varianter av varandra som man hellre hade härlett själv vid behov. Säkert pedagogisk om man haft nog med tid, men 70-sidor per vecka blir bara förvirrande. Vet inte hur Hans-Uno Bengtssons Klassisk Fysik del 3 är, men jag gillade dess korta kapitel och historiska notiser i del 1 och 2. En revidering à la Patriks "Grundläggande statistisk fysik" hade gjort kursen fulländad!

Jag köpte inte boken.

My first two answers speaks for themselves. About the last two: I think that, in general, the course information for all courses given by the university are very vague. I think the information should contain more specific details about what previous knowledge is required and also more specifics about what the students are expected to learn during the respective courses. I think that would help many students to plan their studies in a better way. Those information sheets should be like a buffet!

Lectures and problem solving sessions

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

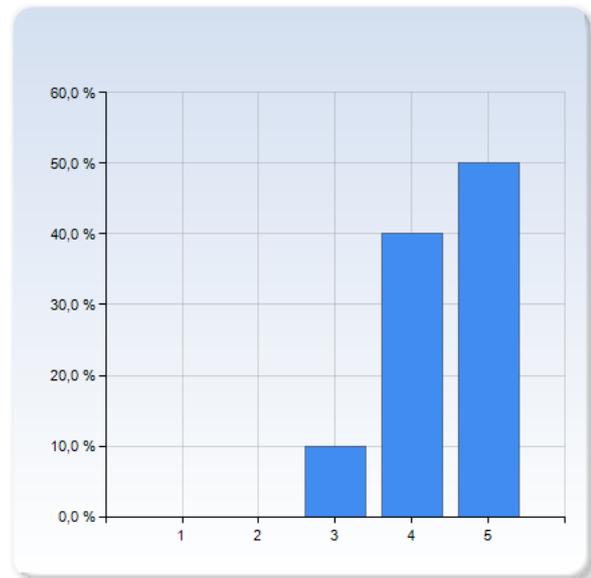
4 = positive

5 = very positive

What is your general opinion of...

the lectures with Johan Rathsmann?

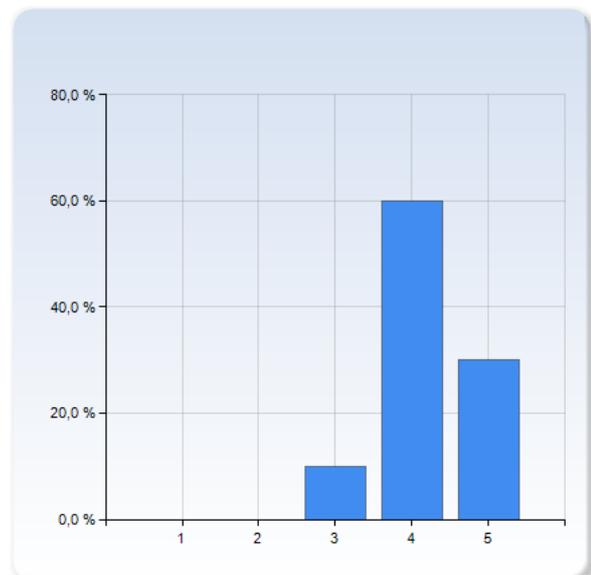
the lectures with Johan Rathsmann?	Antal svar
1	0 (0,0%)
2	0 (0,0%)
3	1 (10,0%)
4	4 (40,0%)
5	5 (50,0%)
Summa	10 (100,0%)



the lectures with Johan Rathsmann?	Medelvärde	Standardavvikelse
	4,4	0,7

the format of the problem solving sessions?

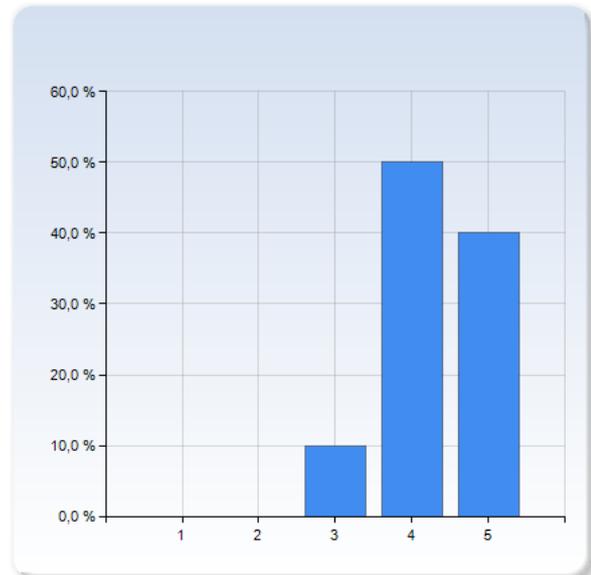
the format of the problem solving sessions?	Antal svar
1	0 (0,0%)
2	0 (0,0%)
3	1 (10,0%)
4	6 (60,0%)
5	3 (30,0%)
Summa	10 (100,0%)



the format of the problem solving sessions?	Medelvärde 4,2	Standardavvikelse 0,6
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the exercises at the problem solving sessions?

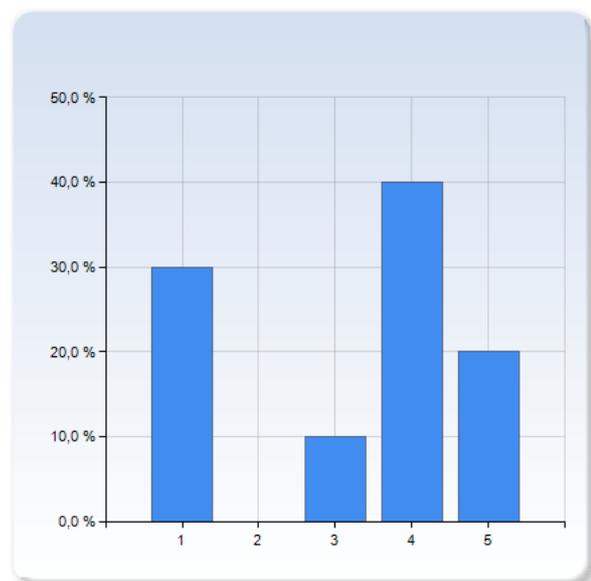
the exercises at the problem solving sessions?	Antal svar
1	0 (0,0%)
2	0 (0,0%)
3	1 (10,0%)
4	5 (50,0%)
5	4 (40,0%)
Summa	10 (100,0%)



the exercises at the problem solving sessions?	Medelvärde 4,3	Standardavvikelse 0,7
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the balance between lectures and problem-solving sessions?

the balance between lectures and problem-solving sessions?	Antal svar
1	3 (30,0%)
2	0 (0,0%)
3	1 (10,0%)
4	4 (40,0%)
5	2 (20,0%)
Summa	10 (100,0%)



the balance between lectures and problem-solving sessions?	Medelvärde 3,2	Standardavvikelse 1,6
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Comment (help us interpret your grades!)

The lectures were very good, clear and at a good pace. The problem solving parts of the sessions are good, but the presentations tend to take too much time, and I don't feel that they give anything I wouldn't get from lectures or the book.

I believe it would be more beneficial to have more frequent exercise sessions and hand-in every week instead of every 2.

Im all for the problem solving sessions, but some more leacture time whould help alot, that goes for all FYTA12. In eatch course we are expected to spend (at least) 20hours/week and we get 5.5hours/week in avg only in lectures and problem solving sessions. If that whould be upped to ~8hours im sure there whould be an increase in succes on exams.

Johans föreläsningar och tillhörande anteckningar var noggranna och till mycket hjälp. Problemen i boken är trots ovanstående kritik bra.

Johan is a very good lecturer. The format of the problem solving sessions is very good and very bad. Its good in the sense that the students are given the time to practice both problem-solving in pairs, presentation, and get tips from the supervisor, but whats very bad is the time frame. I think, personally, that you should consider having only one lecture in each course ((CM, SM),(EM, QM)) in fyta12 every week and use the rest of the time on problem solving sessions. For me at least, its much easier to read a chapter in a book and get a sense of things that to do all those exercises alone, and I also feel that its at the problem-solving sessions that you learn all the small useful tricks that may be required not only on the exam, but in general problem solving.

Summary: more problem-solving sessions. The lectures are not always that useful even though the lecturer presents the material in a nice way. The students should be held responsible for that they actually reads the required chapters so that the supervisor can pass down his/her own experince on problem-solving in a more practical manner.

The exercises did have a tebdency to take longer than planned. Solutions to that could be to hand out the problems before and juat present them at the session. Another is to make them longer.

Really would have needed a problem-solving session each week.

Examination

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

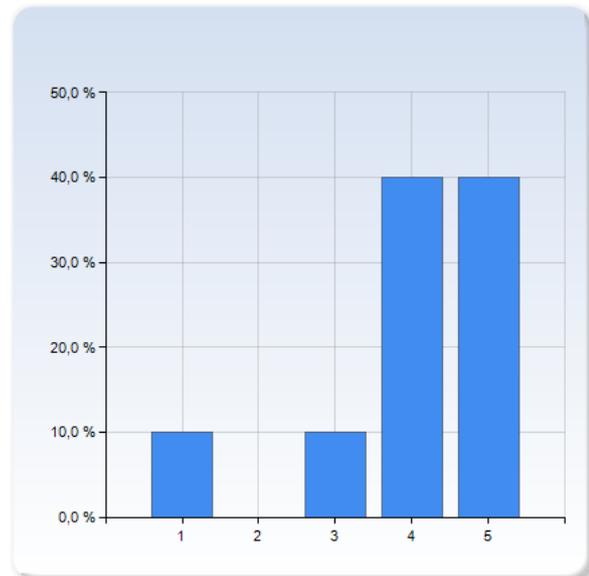
4 = positive

5 = very positive

What is your general opinion of...

the hand-in exercises?

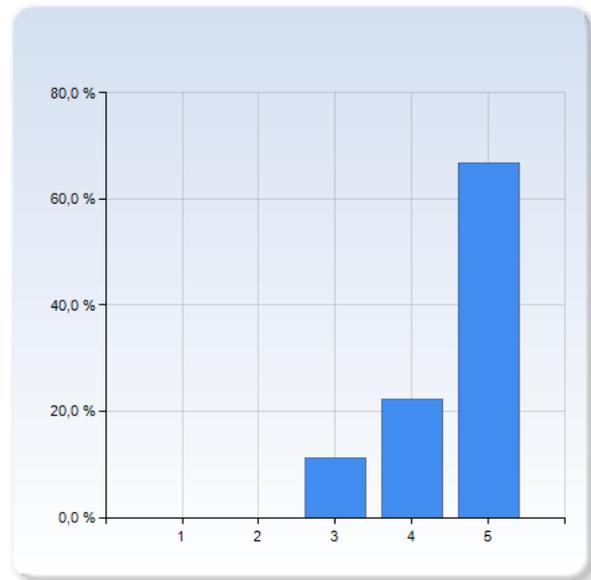
the hand-in exercises?	Antal svar
1	1 (10,0%)
2	0 (0,0%)
3	1 (10,0%)
4	4 (40,0%)
5	4 (40,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
the hand-in exercises?	4,0	1,2

the bonus-system?

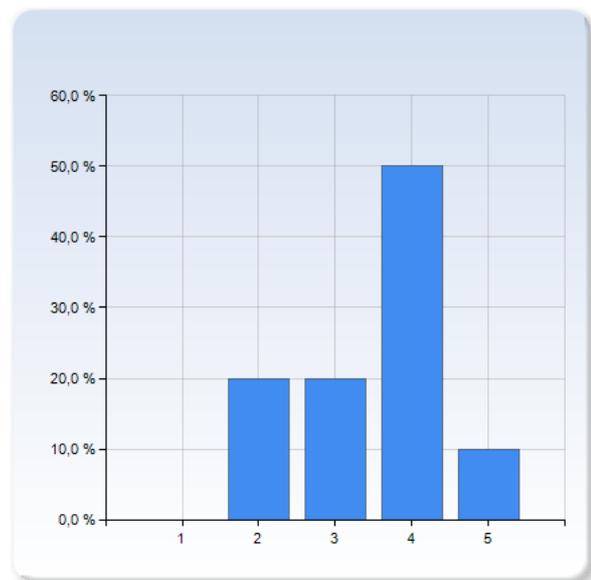
the bonus-system?	Antal svar
1	0 (0,0%)
2	0 (0,0%)
3	1 (11,1%)
4	2 (22,2%)
5	6 (66,7%)
Summa	9 (100,0%)



the bonus-system?	Medelvärde	Standardavvikelse
the bonus-system?	4,6	0,7

the written exam?

the written exam?	Antal svar
1	0 (0,0%)
2	2 (20,0%)
3	2 (20,0%)
4	5 (50,0%)
5	1 (10,0%)
Summa	10 (100,0%)



the written exam?	Medelvärde	Standardavvikelse
the written exam?	3,5	1,0

Comment (help us interpret your grades!)

I think that the bonus system is a really good motivation to do the hand-in exercises. The hand-in exercises themselves are good because it makes us work, but I don't see why they have to be mandatory. Since there is a lot of work in these courses, it is actually really hard to find time to make every single one of them, and as soon as one single exercise is missed, which easily happens, it is just something that just drags along, and it's hard to find time to complete old exercises.

I think that they should be mandatory but not give extra credit in the exams OR give extra credit, but don't be mandatory.

what bonus system?

Whole class agreed on the exam being notisable harder then the old exams we seem.

Tentan var svår främst för att den tog lång tid att räkna, men den representerade kursen bra. Inlupparna var toppen.

The hand in excercises were good but I dont think the exam managed to reflect them. I think that if more focus would be on problem solving during the course the exam could be even harder.

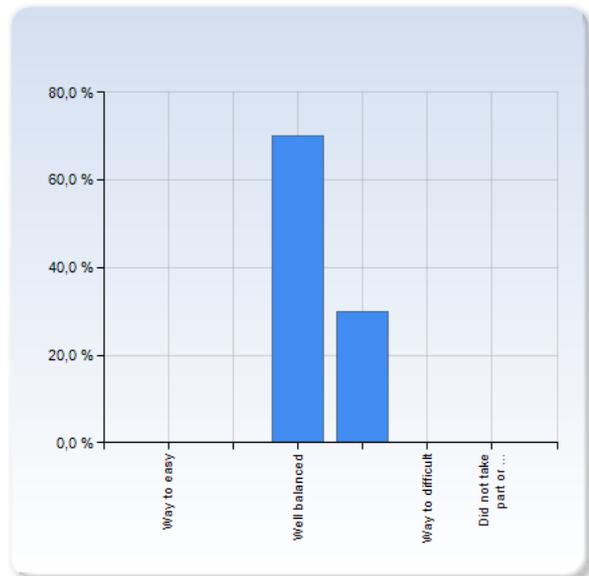
From your perspective it may look like the course is centered around problem solving but after all the reading is done for the day and the hand-in exercise is finished for the week there is not much time left for other calculations, atleast not in my case. The hand-in exercises could be made larger and more extensive if more time were spent on supervised problem solving.

Level of difficulty

Please rate your perception of the level of difficulty on Beskriv hur du upplevde svårighetsgraden på kursens delmoment

The lectures

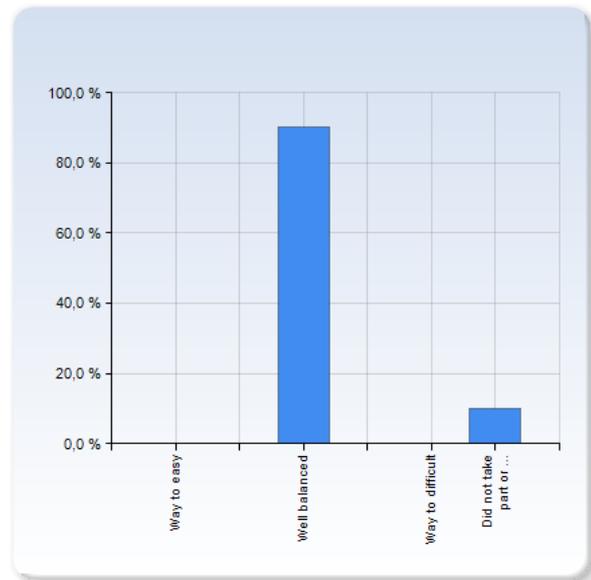
The lectures	Antal svar
Way to easy	0 (0,0%)
Well balanced	7 (70,0%)
Way to difficult	3 (30,0%)
Did not take part or no opinion	0 (0,0%)
Summa	10 (100,0%)



The lectures	Medelvärde	Standardavvikelse
	3,3	0,5

The course literature

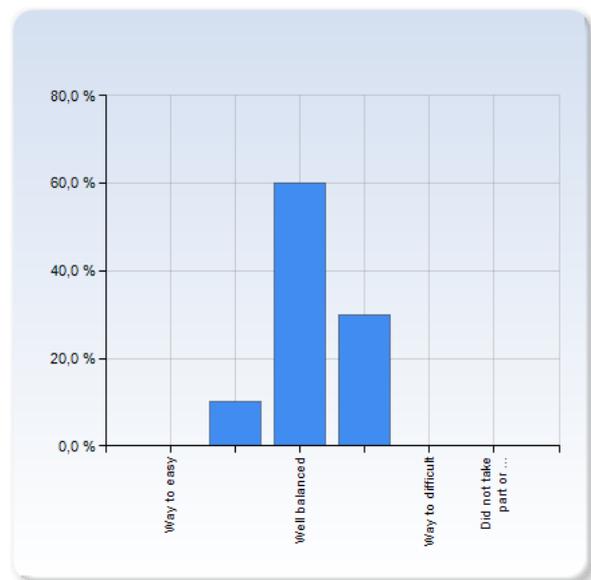
The course literature	Antal svar
Way to easy	0 (0,0%)
Well balanced	9 (90,0%)
Way to difficult	0 (0,0%)
Did not take part or no opinion	1 (10,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
The course literature	3,3	0,9

The problems on the problems solving sessions

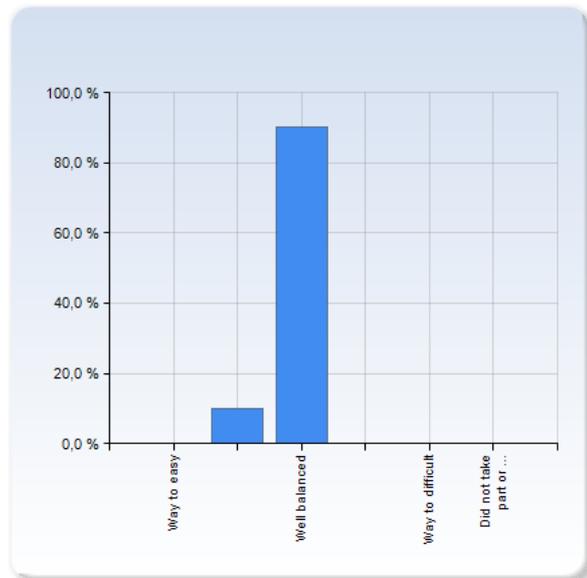
The problems on the problems solving sessions	Antal svar
Way to easy	0 (0,0%)
Well balanced	6 (60,0%)
Way to difficult	3 (30,0%)
Did not take part or no opinion	0 (0,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
The problems on the problems solving sessions	3,2	0,6

The mandatory hand-in exercises

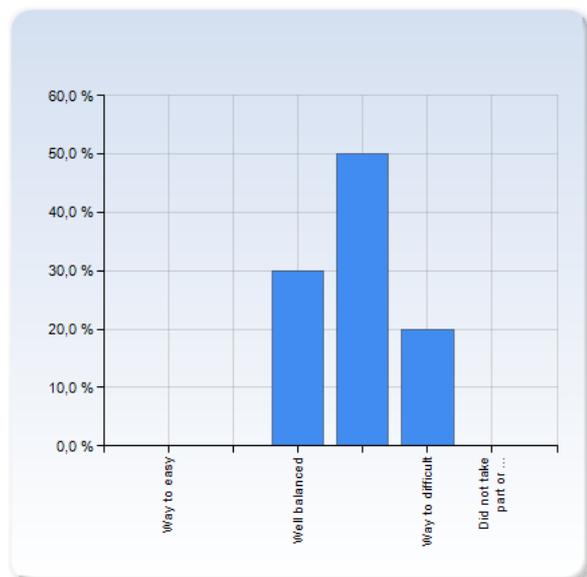
The mandatory hand-in exercises	Antal svar
Way to easy	0 (0,0%)
	1 (10,0%)
Well balanced	9 (90,0%)
	0 (0,0%)
Way to difficult	0 (0,0%)
Did not take part or no opinion	0 (0,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
The mandatory hand-in exercises	2,9	0,3

The written exam

The written exam	Antal svar
Way to easy	0 (0,0%)
	0 (0,0%)
Well balanced	3 (30,0%)
	5 (50,0%)
Way to difficult	2 (20,0%)
Did not take part or no opinion	0 (0,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
The written exam	3,9	0,7

Comments

The exam was very hard, but still it represented the course contents well, and nothing from it could be removed. The course itself was really hard.

if you are not up to date the lectures are very hard to follow. Then you feel discouraged and fall even more behind.

Att övningsuppgifterna på räkneövningarna ibland är lite svårare är bara bra, där har man chans att fråga. På tentatillfället är det inte lika lätt...

On the lectures im saying abit difficult, not because it was hard to follow them but because it was hard to translate some of it into solving problems. This course is very math heavy and we need to see now and then how to fully solve problems. Not skip all the steps to save time. One of the reasons for some more leacture time whould be needed.

The exam were much harder than the hand-in exercises but I dont think it should be easier and it was not "way difficult". We just need to see more problem-solving.

Electromagnetism is a challenging subject and the course neither tries to or should deny it. The course difficulty is at a solid level.

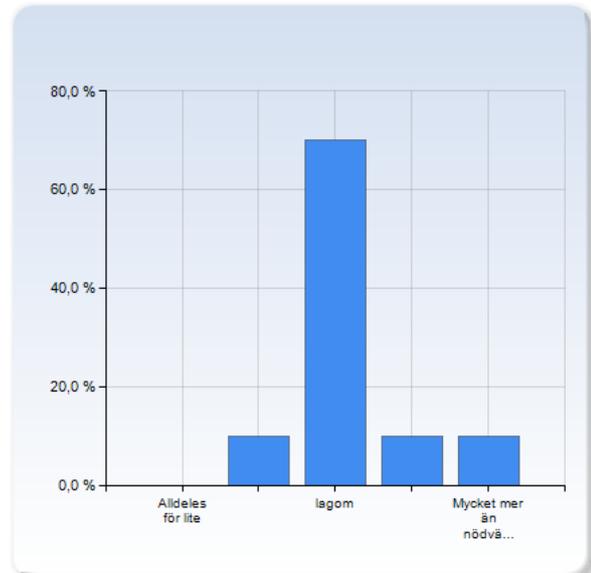
The focus of the course

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.

After completion of the course, the student...

can apply Maxwell's equations in both microscopic as well as macroscopic formulation to deduce the field around simple, symmetric and static charge and current distributions.

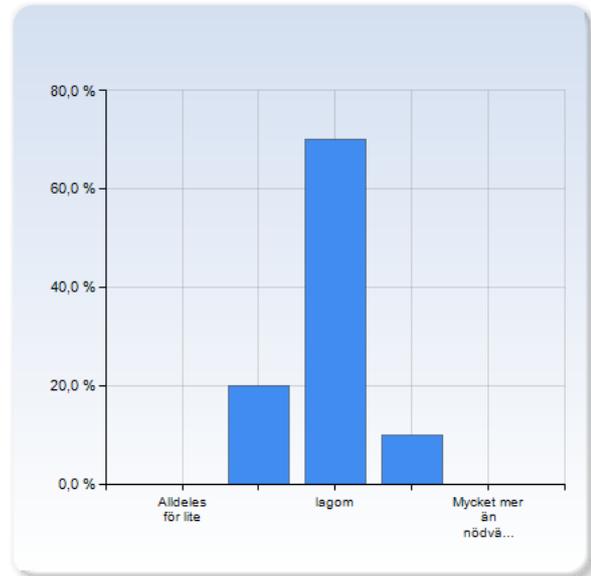
can apply Maxwell's equations in both microscopic as well as macroscopic formulation to deduce the field around simple, symmetric and static charge and current distributions.	Antal svar
Alldeles för lite	0 (0,0%)
	1 (10,0%)
lagom	7 (70,0%)
	1 (10,0%)
Mycket mer än nödvändigt	1 (10,0%)
Summa	10 (100,0%)



can apply Maxwell's equations in both microscopic as well as macroscopic formulation to deduce the field around simple, symmetric and static charge and current distributions.	Medelvärde	Standardavvikelse
	3,2	0,8

can analyse energy transport in different radiation phenomena both in vacuum and in linear media

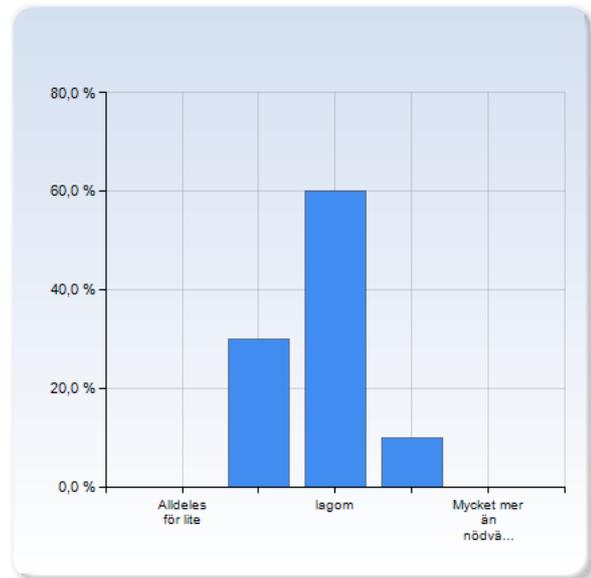
can analyse energy transport in different radiation phenomena both in vacuum and in linear media	Antal svar
Alldeles för lite	0 (0,0%)
	2 (20,0%)
	7 (70,0%)
lagom	1 (10,0%)
Mycket mer än nödvändigt	0 (0,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
can analyse energy transport in different radiation phenomena both in vacuum and in linear media	2,9	0,6

can deal with foundational concepts such as the vector potential and gauge choice

can deal with foundational concepts such as the vector potential and gauge choice	Antal svar
Alldeles för lite	0 (0,0%)
	3 (30,0%)
	6 (60,0%)
lagom	1 (10,0%)
Mycket mer än nödvändigt	0 (0,0%)
Summa	10 (100,0%)



	Medelvärde	Standardavvikelse
can deal with foundational concepts such as the vector potential and gauge choice	2,8	0,6

Comments

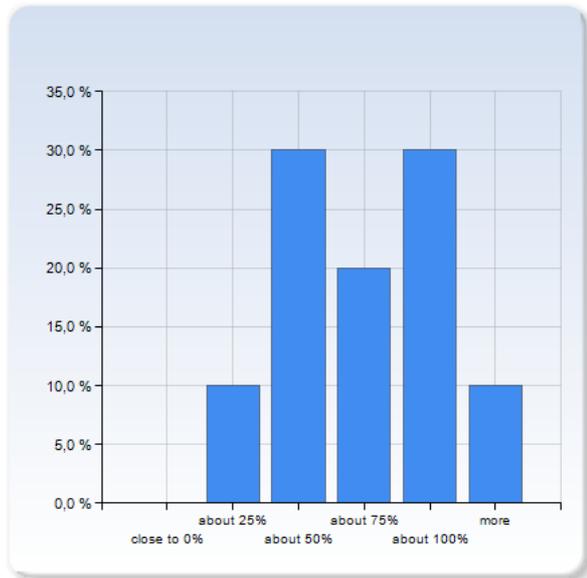
Svårt dilemma, att få en stabil grund för de grundläggande fenomenen samtidigt som man egentligen vill skynda till de avancerade godbitarna på slutet. Kanske göra denna kurs till förkunskap innan masterkursen i elektromagnetism (FYSN13?) och låta den kursen börja från de mer avancerade bitarna?

As above, we need more practical exercise in all of the cases.

This part of the evaluation has questions in English but answers in Swedish... like "lagom"

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)	Antal svar
close to 0%	0 (0,0%)
about 25%	1 (10,0%)
about 50%	3 (30,0%)
about 75%	2 (20,0%)
about 100%	3 (30,0%)
more	1 (10,0%)
Summa	10 (100,0%)



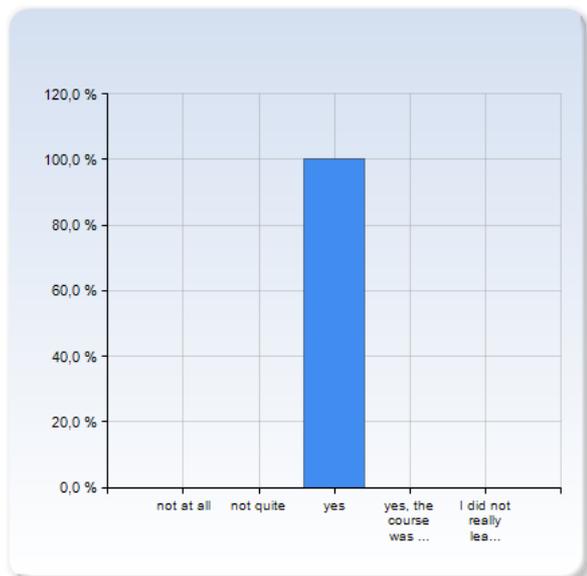
How much time have you spent on this course? (100% means 20 hours per week for 9-10 weeks, adding up to roughly 25 work-days)	Medelvärde	Standardavvikelse
	4,0	1,2

Comment

shame on me but I mostly studied in the last week
Tillsammans med kvantmekaniken blir det garanterat 100%.
The theory is the most time consuming of the FYTA12 course.

Did you have enough prior knowledge for this course?

Did you have enough prior knowledge for this course?	Antal svar
not at all	0 (0,0%)
not quite	0 (0,0%)
yes	10 (100,0%)
yes, the course was a bit easy	0 (0,0%)
I did not really learn anything new	0 (0,0%)
Summa	10 (100,0%)



Did you have enough prior knowledge for this course?	Medelvärde	Standardavvikelse
	3,0	0,0

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)?

Yes I have read the book half way through last year (without solving the exercises). That gave me a feeling of familiarity and made the subsequent reading more pleasant

The courses given in the bachelor program in theoretical physics, this far.

Some of my prior knowledge comes from personal interest.

What did you particularly like with the course?

What did you particularly like with the course?

The electric and magnetic fields left me curious about field theory. Also the four-vectors felt important and useful.

Griffith's book is amazing. Also the concept of electrodynamics is very fascinating.

Den kändes som en bra sammanfattning av elektromagnetism, med lagom tid på alla olika delar.

Ljus

I liked the course in general, but I just want a more practical approach and I think that would allow us to gain even more knowledge of the material.

Learning the amazing theory of electromagnetism

What in the course do you think could improve?

What in the course do you think could improve?

I'd like it if there was some computer simulation exercise regarding electrodynamics.

Exercise sessions.

Time.

Se ovan kommentarer

More problem-solving.

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

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

The problem with the course is that although most of the concepts are quite understandable, the calculations are hard and time-consuming, so just understanding isn't enough. There isn't much to do about it. (Interesting though, the note in the course book after chapter 7 saying "this is where you should stop if the course is a whole semester. If it's a whole year, you should get through the rest of the book")

Jämfört med Bo Söderbergs föreläsningar är farten ganska låg, men två parallella föreläsare med sådant tempo hade nog blivit svårt att hänga med...

The course with the most content during my first 2 years, really crammed in there...

Allmänt bra upplägg. Jag har inte mycket att kommentera.

Opps, I think I have preached enough about problem-solving.

Thank you for listening!

The lectures did a really good job of presenting the theory and were very well planned.