

Scientific Computing III, 5.0 c

Course code: 1TD397, Report code: 62002, 33%, DAG, NML
week: 04 - 12 Semester: Spring 2020 (2020-01-20 - 2020-03-22)

Result

This evaluation is answered by 27% (26/98) of the respondents.

Below are statistics on single- and multiple-choice answers and freeform text.

Additionally, the summaries for freeform text responses that students will see are also shown.

Welcome

Your opinion is important for the development of this and other courses. We appreciate comments, both about things that can be improved and things that we should keep as is. Please contribute with concrete suggestions for changes.

Thank you!


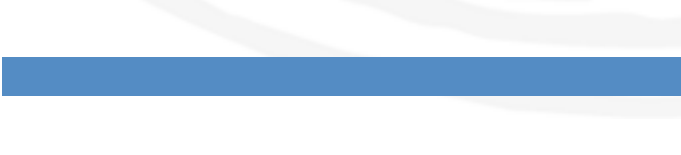


/Murtazo, Tuan, Pei

General Aspects

1: Which study program (or equivalent) are you registered on?
(If none of the options are relevant to you, choose "Other").

Answers: 26

Answer options:

0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Civil Engineering, Engineering Physics (F)	22 responses	85%		<input type="checkbox"/>
2. Single Subject Course	1 responses	4%		<input type="checkbox"/>
3. Other (i.e. other program)	3 responses	12%		<input type="checkbox"/>

2: What is your general view about the course?

Answers: 26

Answer options:

Median: 4 Mean: 4.0 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Very bad	0 responses	0%		<input type="checkbox"/>
2.	1 responses	4%	<div style="width: 4%;"></div>	<input type="checkbox"/>
3.	4 responses	15%	<div style="width: 15%;"></div>	<input type="checkbox"/>
4.	14 responses	54%	<div style="width: 54%;"></div>	<input type="checkbox"/>
5. Very good	7 responses	27%	<div style="width: 27%;"></div>	<input type="checkbox"/>

3: What was the degree of difficulty

Answers: 26

Answer options:

Median: 4 Mean: 3.6 / 5

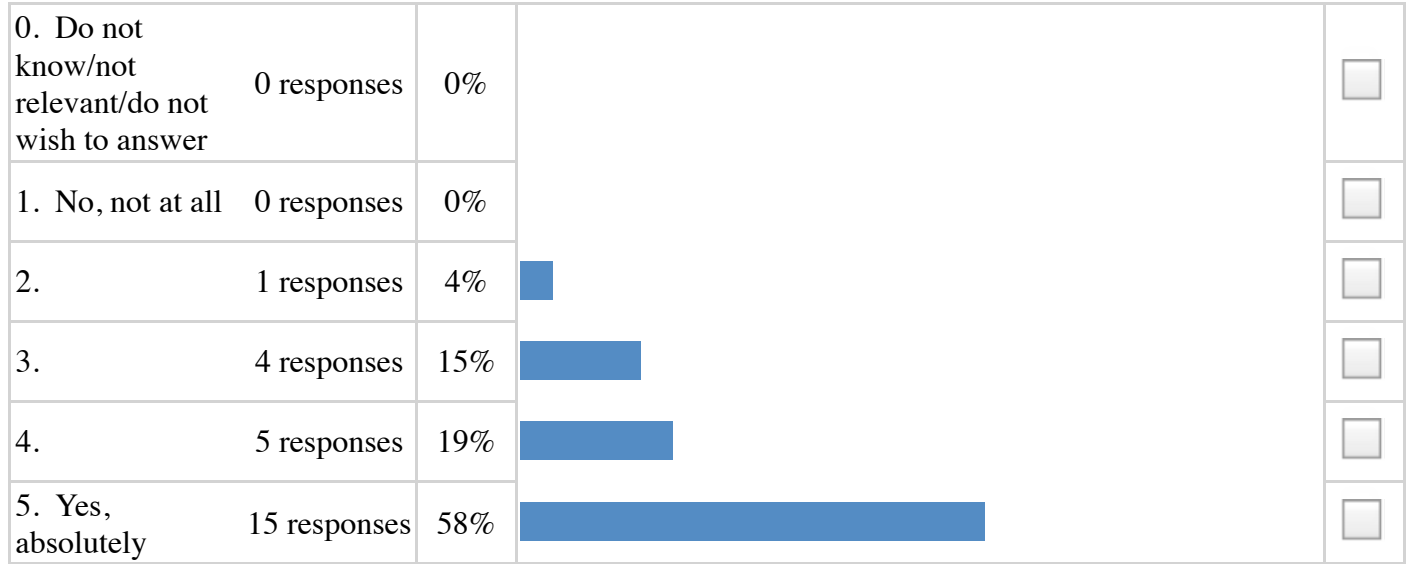
0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Very easy	0 responses	0%		<input type="checkbox"/>
2.	0 responses	0%		<input type="checkbox"/>
3.	11 responses	42%	<div style="width: 42%;"></div>	<input type="checkbox"/>
4.	15 responses	58%	<div style="width: 58%;"></div>	<input type="checkbox"/>
5. Very hard	0 responses	0%		<input type="checkbox"/>

4: Was your prior knowledge good enough for the course?

Answers: 25

Answer options:

Median: 5 Mean: 4.4 / 5

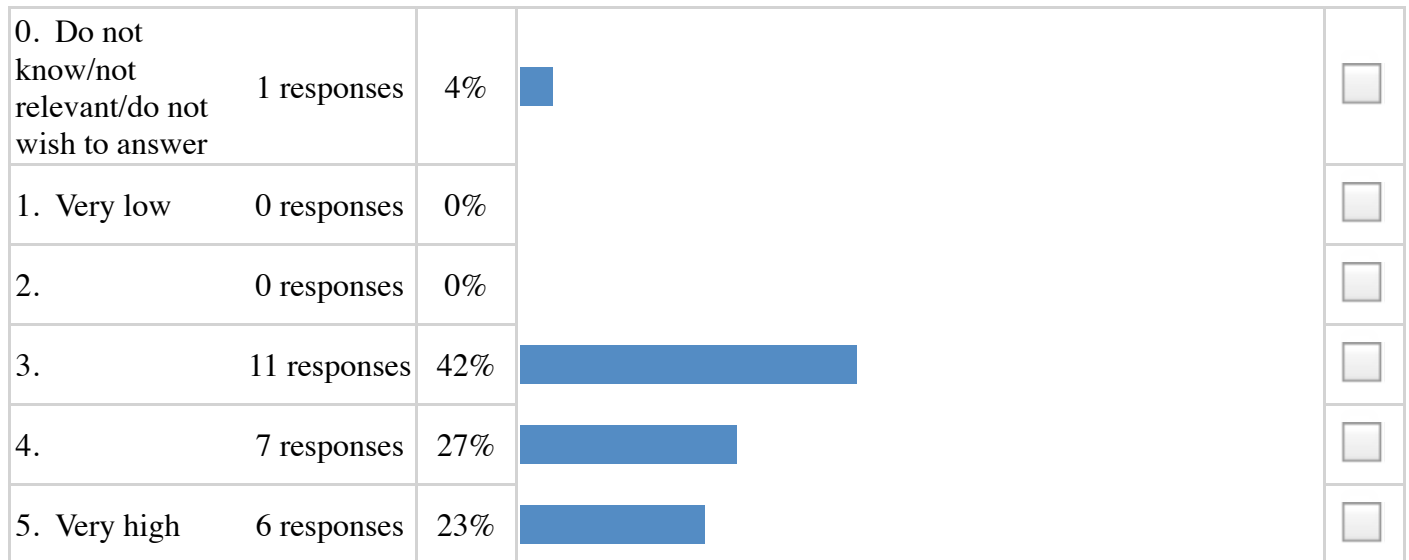


5: How did the total amount of work on the course relate to the credits?

Answers: 25

Answer options:

Median: 4 Mean: 3.8 / 5



6: Has the course been stimulating and interesting?

Answers: 25

Answer options:

Median: 4 Mean: 4.3 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Not at all	0 responses	0%		<input type="checkbox"/>
2.	0 responses	0%		<input type="checkbox"/>
3.	3 responses	12%	<div style="width: 12%;"></div>	<input type="checkbox"/>
4.	11 responses	42%	<div style="width: 42%;"></div>	<input type="checkbox"/>
5. To a very high extent	11 responses	42%	<div style="width: 42%;"></div>	<input type="checkbox"/>

7: Is the course relevant to your education?

Answers: 25

Answer options:

Median: 5 Mean: 4.6 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Not at all	0 responses	0%		<input type="checkbox"/>
2.	0 responses	0%		<input type="checkbox"/>
3.	1 responses	4%	<div style="width: 4%;"></div>	<input type="checkbox"/>
4.	9 responses	35%	<div style="width: 35%;"></div>	<input type="checkbox"/>
5. To a very high extent	15 responses	58%	<div style="width: 58%;"></div>	<input type="checkbox"/>

8: Has the course made you interested in taking other courses in the same area?

Answers: 25

Answer options:

Median: 4 Mean: 3.8 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Not at all	1 responses	4%	<div style="width: 4%;"></div>	<input type="checkbox"/>
2.	2 responses	8%	<div style="width: 8%;"></div>	<input type="checkbox"/>
3.	5 responses	19%	<div style="width: 19%;"></div>	<input type="checkbox"/>
4.	10 responses	38%	<div style="width: 38%;"></div>	<input type="checkbox"/>
5. To a very high extent	7 responses	27%	<div style="width: 27%;"></div>	<input type="checkbox"/>

9: General comments on the course (e.g. something that was particularly good or something that should be improved)?

Answers: 13

I feel like the information needed for the project was sometimes given a bit too late, for example a lecture given a few days before part b was supposed to be handed in. Also, some information was only given through examples, for example I know very well how to solve Poissons equation using FEM but I do not understand the concept very well and cannot solve for other equations. During the exam I felt a bit frustrated when there was only one chance to solve a FEM-exercise, it would be nice with one more for that part :)

Super good course! Very well balanced in terms of work load. Smooth sailing while also learning a ton of new stuff and challenging enough to not be boring. Exactly what every course should be like. An absolute pleasure.

Det var lite konstigt att det var krav på tentan att man skulle klara minst 4 poäng på varje del och att tentans poängfördelning på de 3 delarna var väldigt olika (och inte särskilt tydliga)

A lot of theory for the projects was given very close to or even on the due date which made it very difficult to adequately complete the projects on time. Much of the same can be said about the workouts and sometimes the problems were not even published until the day of the workout, making it practically impossible to complete them before coming to the workout.

The project was VERY hard and time demanding. Make the project possible to do by yourself. I think it is really hard to do the task by yourself. Either 1) make it easier so it is actually possible to do by yourself or 2) make groups you can attend through studentportalen so it is easier to find a group for those who haven't found any yet. Overall the workouts were demanding and on a good level of challenge, a very giving part of the course that contributed to understanding! A good next step from SC I and II

I like the project layout that you build on the project with the three parts the course covers. Very good, please keep this for future courses. This was much better than having separate small mini projects disjoint from each other. On a different note, charlines was not properly covered in the course. Only mentioned real fast on a lecture in the FDM block and then was not mentioned until the repetition lecture and of course it came up in the exam. I feel an extra two or three lectures could be added since it feels we did not properly go through this on the lectures and it was really tricky finding other sources of this that explained this well. Since there aren't really any lectures an extra two lectures would not hurt. Not to jam in more stuff into the course but to make sure that each part gets sufficient time to be explained time enough to go through a couple of examples for that particular thing as well. The exam represented the course well and felt reasonable except for the charlines point. Maybe expand the theory and analysis part in the lectures, and with that do not mean more derivations but more "what happens when this happens", "If we change this what will happen to this", "why do we formulate this... before we formulate this..."

The best course in Scientific Computing by far!

Projektet tog mycket tid att göra. Det var överlag givande men där fanns saker som tog lång tid utan att ge mycket (bl.a. beräkningstung kod som behövde köras flera gånger, skriva in långa härledningar på dator istället för på papper). Ett annat problem med projektet var att föreläsningarna inte gav tillräckligt med kunskap för att klara alla uppgifter utan lärare behövde ge svaren under problemlösningsspass nära inpå deadline. Det var alltså svårt att göra projektet på egen hand och i god tid. Workouts var väldigt bra för att förstå kursinnehållet och som förberedelse till tentan. Datalabbarna var ok, men var svåra att förstå.

I think it would be nice to have more "problem solving" sessions where you see the theory implemented, especially on the FEM part before we start with the part C project. Also, it was a bit confusing that the boundaries in part C were handled as they were, i.e. no extra terms in right hand side.

Projektet var för dåligt strukturerat. Det var fel information i instruktionerna och väldigt otydliga instruktioner för del B och C. Det var ofta föreläsningarna om projektet kom ut dagen efter deadline för projektet vilket kändes onödigt. Man jobbade ofta i ovisshet med projektet och det var svårt att veta vad som var rätt. Dessutom tog många beräkningar för lång tid på datorer med vanlig prestanda, detta borde testas i förväg så man vet vilken tidsram som är rimlig att jobba inom.

Projektet är alldeles för stort för en 5hp-kurs och inte alls strukturerat i sin utformning. Finns utrymme för att förbättra projektet och göra det lite tydligare. Fel info och otydlig info som kom i projektbeskrivningen. Föreläsningar som hörde till projektets område kom ofta ut efter deadline för den delen av projektet vilket var lite jobbigt.

Overall this course was very good, during both lectures and workouts the teachers were able to present the material in a clear way. One point of improvement would be instructions and feedback regarding the project. Specifically the last part in which we used pdetoolbox in Matlab was poorly explained.

Tenta som skiljde sig ganska mycket åt övningsuppgifter som lades ut.

Teaching

Teacher 1: Murtazo Nazarov

10: The teacher has been supportive in your learning process, i.e. good feedback, good explanations, clear and well structured teaching?

Answers: 25

Answer options:

Median: 4 Mean: 4.4 / 5

0. Do not know/not relevant/do not wish to answer	1 responses	4%		<input type="checkbox"/>
1. Not agree at all	0 responses	0%		<input type="checkbox"/>
2.	0 responses	0%		<input type="checkbox"/>
3.	1 responses	4%		<input type="checkbox"/>
4.	13 responses	50%		<input type="checkbox"/>
5. Fully agree	10 responses	38%		<input type="checkbox"/>

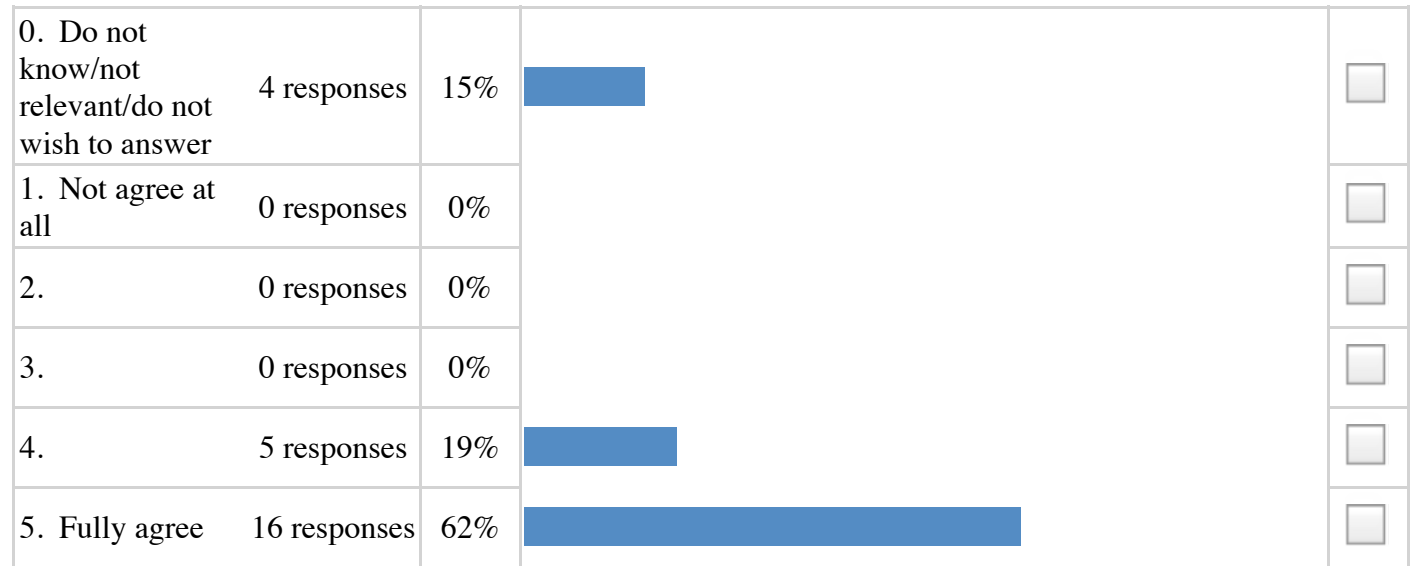
Teacher 2: Tuan Anh Dao

11: The teacher has been supportive in your learning process, i.e. good feedback, good explanations, clear and well structured teaching?

Answers: 25

Answer options:

Median: 5 Mean: 4.8 / 5



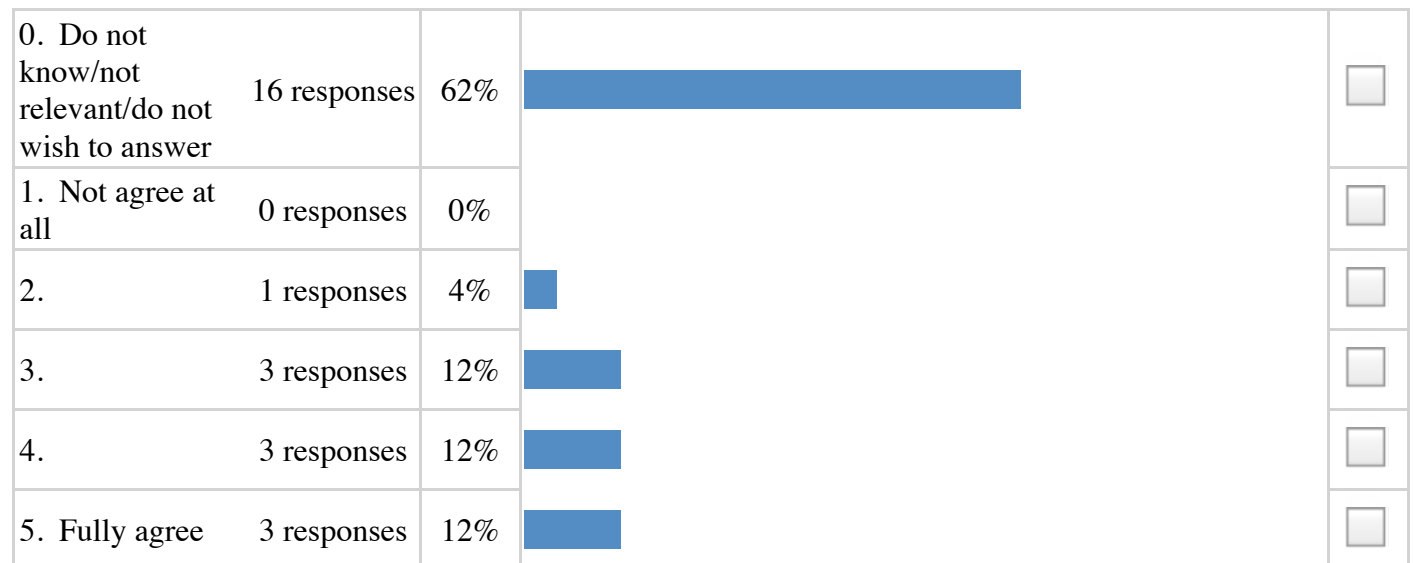
Teacher 3: Fu Pei

12: The teacher has been supportive in your learning process, i.e. good feedback, good explanations, clear and well structured teaching?

Answers: 26

Answer options:

Median: 4 Mean: 3.8 / 5



All teachers

13: Comments to the teaching, i.e. anything particularly good or anything that should be improved?

Answers: 9

Lite mycket mumlande in i tavlan med ryggen vänd framåt på föreläsningar.

Murtazo's lectures are absolutely amazing. His way of explaining things makes it very easy to follow while still being interesting. Thanks to his lectures being very well structured, performed at a good pace and completely done on the black board it made note taking much easier than it usually is. I rarely end up with notes this useful and comprehensive. Absolutely 10/10 in every aspect. Mad respect. The only thing I think can be improved upon is to stay on track with posting the lecture notes online afterwards. If you miss a lecture it's quite troublesome having to wait several days to be able to catch up, especially with workouts and deadlines.

Tuan var superbra och hjälpsam!! Extra beröm till honom!

In the problem solving sessions, try to be more structured and take pauses when walking through a problem so there's time for reflection

The teachers in this course have been so good. (I have only interacted with Tuan and Murtazo therefore no answer about Pei). Always helpful when questions about the project came up. Replying to emails and really helpful if you stopped by their offices. Great job you guys! Also good lectures and instructing on the workouts.

Tuan var väldigt hjälpsam.

Tuan var en ängel när vår matlab-kod strulade mot slutet och räddade verkligen oss på sluttampen av projektet.

Feedback on workouts was great. During the course the teachers provided extra info regarding the project when something was unclear, however this might be something that can be improved by making the original instructions clearer.

Murtazo is very unorganised when lecturing jumping back and forth between topics. It would be better to introduce the method first, clearly state what the derivation and background to the method is, then talk about how we are supposed to implement it in the project this was not cover much in the lectures witch bothered me, and lastly talk about stability. It bothered me also that some things that we used in the project were mention on the lecture after the deadline, if that was with intent I did not like it i would rather hear it before the deadline, an example is that upwind method was talked about two days after the deadline of the project part that was about upwind. Tuan excellent comments on code that made us undertand, really appreciate it!

Learning activities

The course has a block structure, where each block is built up with computer labs, lectures, workouts, problem solving sessions. Furthermore, a number of mini projects is included in the course. The idea is that these learning activities together will contribute to your learning. Evaluate to what extent each individual learning activity has valuable for your learning.

14: To what extent has the lectures contributed to your learning?

Answers: 25

Answer options:

Median: 5 Mean: 4.5 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		<input type="checkbox"/>
1. Not at all	0 responses	0%		<input type="checkbox"/>
2.	0 responses	0%		<input type="checkbox"/>
3.	1 responses	4%	<div style="width: 4%;"></div>	<input type="checkbox"/>
4.	11 responses	42%	<div style="width: 42%;"></div>	<input type="checkbox"/>
5. To a very high extent	13 responses	50%	<div style="width: 50%;"></div>	<input type="checkbox"/>

15: To what extent has the computer labs contributed to your learning?

Answers: 25

Answer options:

Median: 2 Mean: 2.2 / 5

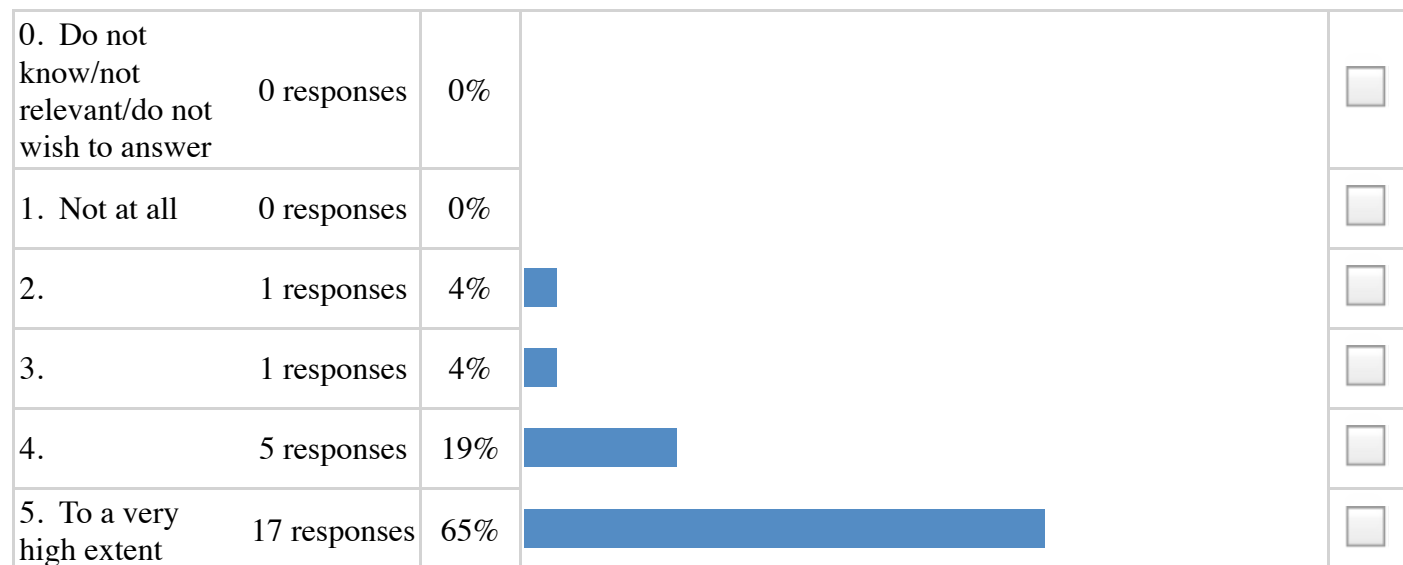
0. Do not know/not relevant/do not wish to answer	5 responses	19%	<div style="width: 19%;"></div>	<input type="checkbox"/>
1. Not at all	7 responses	27%	<div style="width: 27%;"></div>	<input type="checkbox"/>
2.	5 responses	19%	<div style="width: 19%;"></div>	<input type="checkbox"/>
3.	6 responses	23%	<div style="width: 23%;"></div>	<input type="checkbox"/>
4.	2 responses	8%	<div style="width: 8%;"></div>	<input type="checkbox"/>
5. To a very high extent	0 responses	0%		<input type="checkbox"/>

16: To what extent has the workouts contributed to your learning?

Answers: 24

Answer options:

Median: 5 Mean: 4.6 / 5

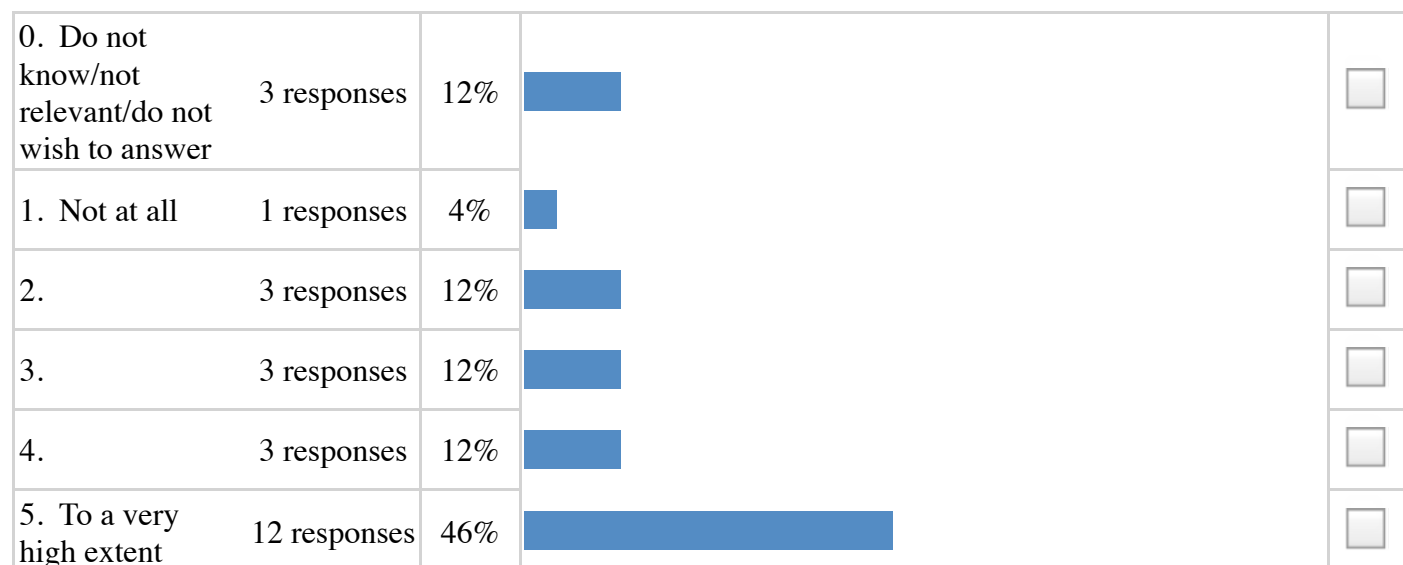


17: To what extent has the mini projects contributed to your learning?

Answers: 25

Answer options:

Median: 5 Mean: 4.0 / 5

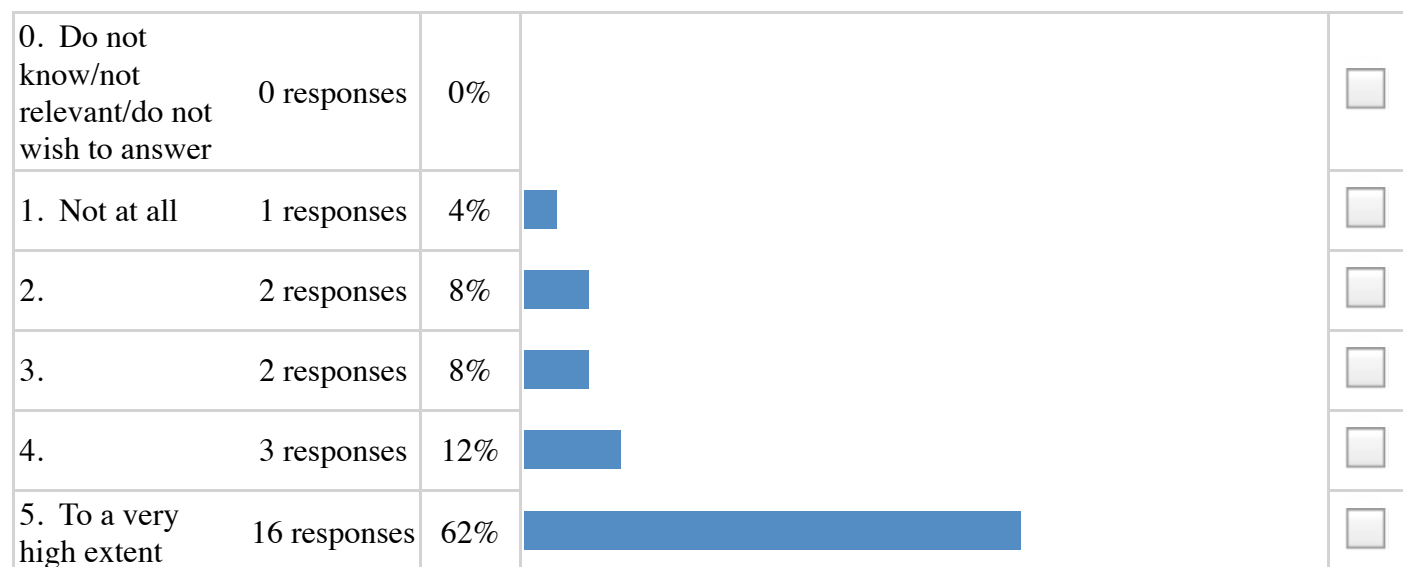


18: To what extent has the project contributed to your learning?

Answers: 24

Answer options:

Median: 5 Mean: 4.3 / 5



19: Comments related to learning activities

Answers: 11

Labbarna har varit lite svåra att ta till sig och det tog lång tid innan jag kände mig insatt i det aktuella blocket av kursen. Upplägget med labbar som introduktion till ett nytt ämne för att sedan ha föreläsningar och workouts skulle må bra av mer vägledande uppgifter på labbarna och en ordentlig kurslitteratur. Som det var nu var det svårt att ta sig vidare när en fastnade med t.ex ett projekt.

Personally the labs felt a bit useless for me so I chose not to attend them. I think they might be more useful for people who are not as comfortable with programming or matlab, so I still think it's a good thing that they exist. For the project I think there should be a separate document containing all the relevant information about it. It was a little difficult to navigate since the general info was split between lecture notes and the home page of the course.

The computer labs were borderline useless since all we could do was to run code that we did not understand yet and look at results we had no idea how to interpret. It would be much better to have the lab after the lectures so that one can understand what one is doing during the lab. I also feel like it should be much more clear that the problem sessions were not just problem sessions but also contained new theory that was needed for the projects and workouts. Further, it felt like the solution to the last project was spoonfed to us during the last problem session. I don't see the point of just being given a solution, it would in that case be better to make the project slightly easier so that such measures are not needed.

The project was VERY hard and time demanding. Make the project possible to

do by yourself. I think it is really hard to do the task by yourself. Either 1) make it easier so it is actually possible to do by yourself or 2) make groups you can attend through studentportalen so it is easier to find a group for those who haven't found any yet. Overall the workouts were demanding and on a good level of challenge, a very giving part of the course that contributed to understanding!

Maybe an extra lecture or two. I personally feel charlines was not properly covered.

The labs in all the scientific computing courses aren't especially good. This is because of the pedagogical idea of the concept that the you introduce each course part with a lab when you don't know anything. This just makes you less prone to do the lab and try to understand the code when you don't know any theory.

Did not go to any laborations

I think the course should have some kind of labs but right now they felt pretty "ok", since we did not understand anything. Maybe better to have labs later in each part where you go through some MatLab exercises similar to the project but smaller. This would mostly be nice for FEM and maybe FDM parts.

Anteckningarna för föreläsningarna kom ut för sent, de borde publiceras innan deadline på projektet.




There is a very good balance between them, I don't think this can be improved in my opinion.

Some continues examination would make this course better. Maybe make so the workout is for grade 3 and exam for higher grade.

Text books and course material

The text book *LeVeque, Randall J.: Finite difference methods for ordinary and partial differential equations : steady-state and time-dependent problems* has been used in the course.




Answer options:

0. Do not know/not relevant/do not wish to answer	1 responses	4%		<input type="checkbox"/>
1. Yes	6 responses	23%		<input type="checkbox"/>
2. No	18 responses	69%		<input type="checkbox"/>

21: Has the lecture notes been useful?

Answer options:

Median: 5 Mean: 4.8 / 5

0. Do not know/not relevant/do not wish to answer	1 responses	4%		<input type="checkbox"/>
1. No, not at all	0 responses	0%		<input type="checkbox"/>
2.	0 responses	0%		<input type="checkbox"/>
3.	0 responses	0%		<input type="checkbox"/>
4.	6 responses	23%		<input type="checkbox"/>
5. Yes, to a high degree	18 responses	69%		<input type="checkbox"/>

Allt lärande för mig har baserats på föreläsninganteckningarna då kurslitteraturen inte följs särskilt nära och det blir lite rörigt att sälla ut relevant info ur boken.

The literature was completely unnecessary. The lecture notes online were a great help and really well made, comprehensive and easy to follow.

Asbra att föreläsninganteckningarna läggs upp! Hjälpt otroligt mycket! Hade dock önskat lösningsförslag till fler tentor.

The lecture notes were very good but were sometimes uploaded a bit late to be useful for the current project or workout.

The lecture notes: very good and structured!

Really good lecture notes. Maybe som more clearly stated reading references in a document on the studentportalen.

The book in FEM by Bengzon and Larsson was good and helpful, especially for the final part of the project. Along with all the lecture notes.

Inte använt boken alls men föreläsningarna räckte!

The books almost weren't needed due to the lectures doing a sufficient job covering the material.

Would be nice if LeVeque had some code like the other book

Summary of free-text responses/comments for the whole course evaluation