Finite Element Methods, 5 c

Course code: 1TD253, Report code: 12015, 33%, DAG, NML, week: 44 - 02 Semester: Autumn 2015

Result

This evaluation is answered by 23% (12/52) of the respondents.

Please write summaries of the free-text responses for each question before you publish. Work with the course report will be facilitated if you have already written the summaries. Please note that free text responses must be examined trough a privacy perspective before they are published or printed. See guidelines for course evaluations.

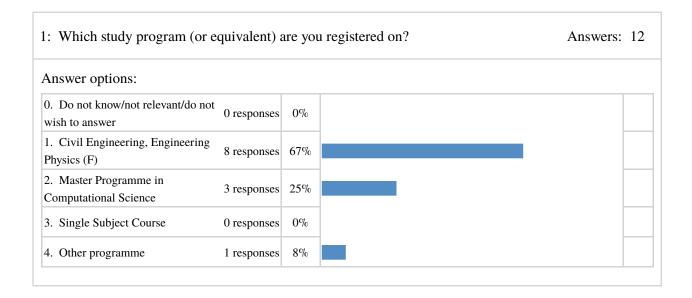
Show course and programme filter

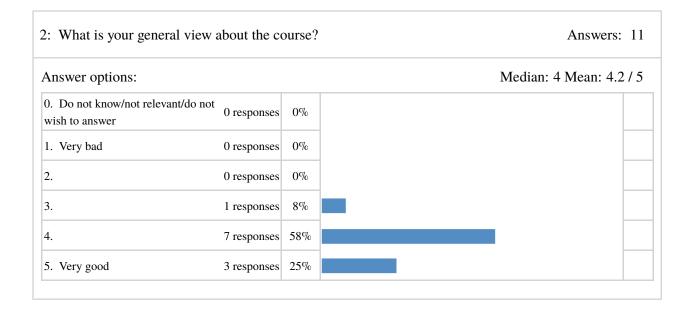
Welcome

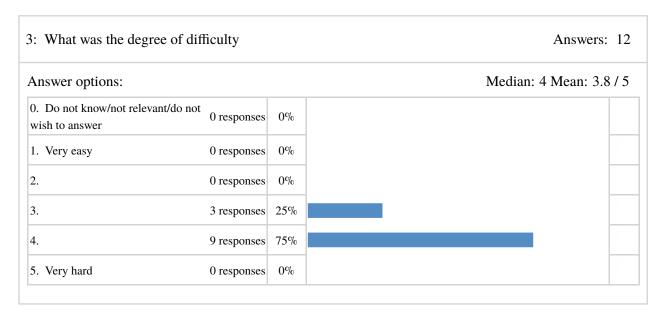
Your views on the course is an important part of the course development. We hope you can give us feedback on things that should be developed and improved as well as things that works well and should be kept as it is. Concrete suggestions for improvement are very welcome.

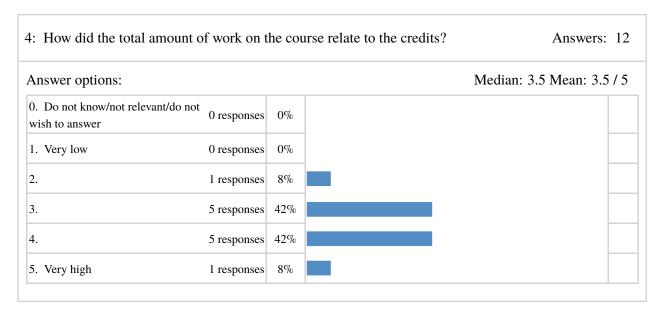
Thanks for your help!
/Murtazo och Emilie

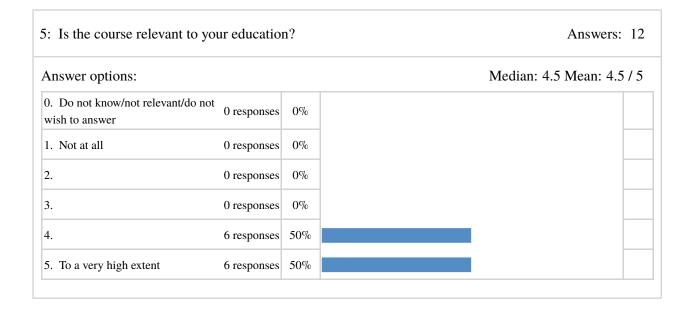
General Aspects

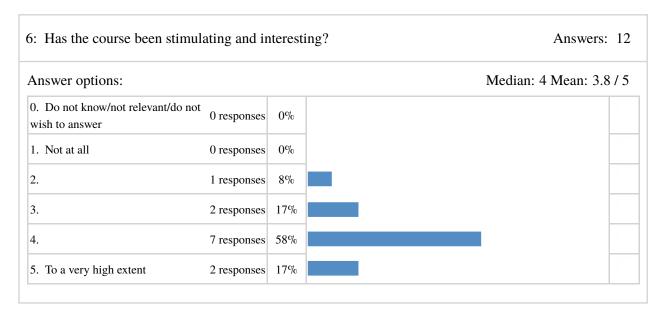


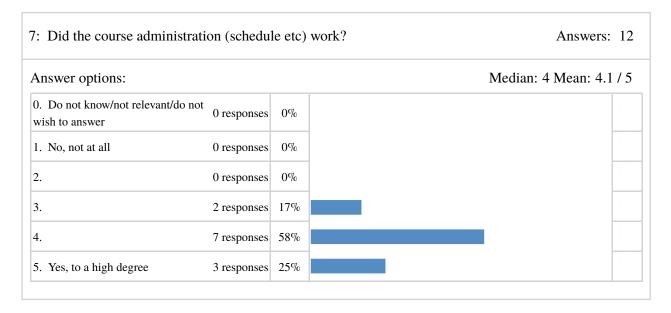


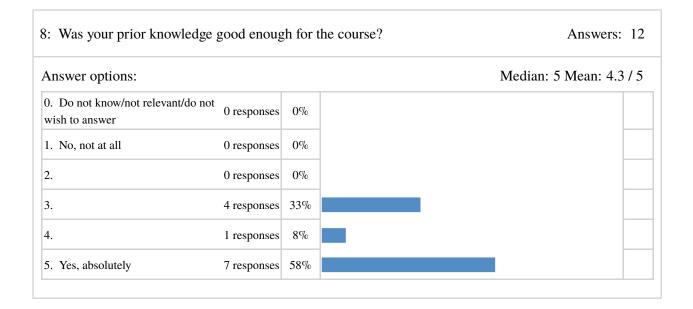












9: What has been particularly good in this course?

Answers: 5

10: What are the most important specific improvements that could be made?

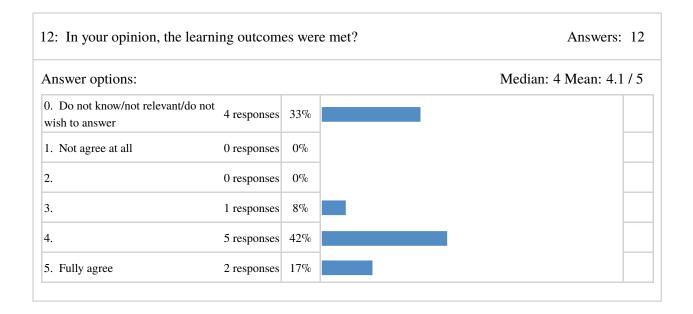
Answers: 5

Learning Outcomes

To pass, the student should be able to

- explain fundamental concepts in mathematical modeling with partial differential equation, and fundamental properties for elliptic, parabolic and hyperbolic equations;
- formulate and with a computer solve second order elliptic boundary value problems in one spatial dimension for Dirichlet, Neumann and Robin boundary conditions using the finite element method;
- formulate and with a computer solve second order elliptic boundary value problems in two spatial dimensions with Dirichlet, Neumann, and Robin boundary conditions, using the finite element method;
- derive a priori and a posteriori error bounds for elliptic equations in one and two spatial dimensions, and be able to use these error bounds to construct adaptive algorithms for local mesh refinement.
- solve parabolic and hyperbolic partial differential equations using the finite element method in space and finite differences in time, and to compare different time stepping algorithms and choose appropriate algorithms for the problem at hand.
- use finite element software to solve more complicated problems, such as coupled systems of equations;
- evaluate different techniques for solving problems and be able to motivate when to use existing software and when to write new code.

Answer options:			Median: 5 Mean:	4.5 / 5
0. Do not know/not relevant/do not wish to answer	4 responses	33%		
1. No, not at all	0 responses	0%		
2.	0 responses	0%		
3.	1 responses	8%		
4.	2 responses	17%		
5. Yes, to a high degree	5 responses	42%		

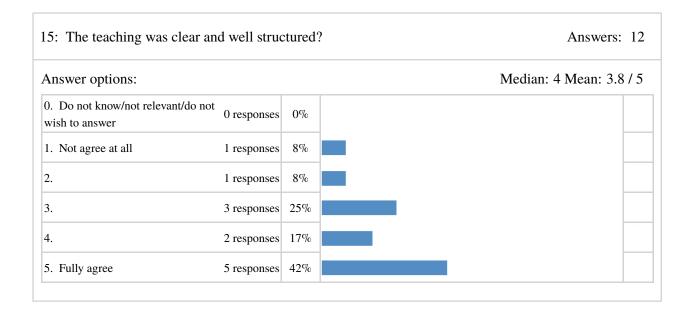


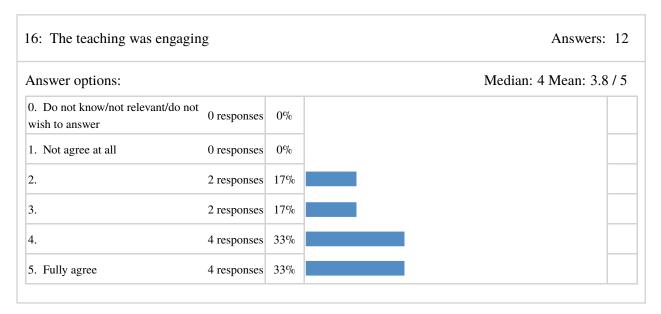


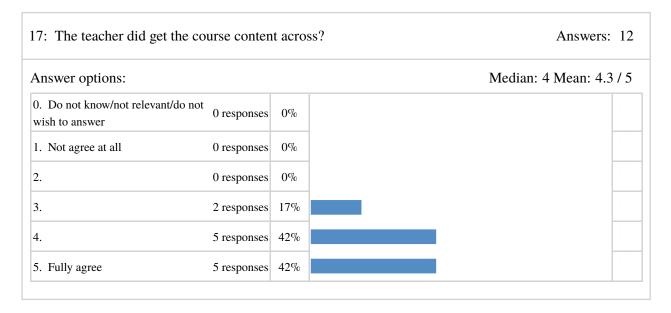
Teaching

Answer options:			Median: 4 Mean:	4.0 / 5
0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not agree at all	0 responses	0%		
2.	1 responses	8%		
3.	3 responses	25%		
4.	3 responses	25%		
5. Fully agree	5 responses	42%		

Main Teacher: Murtazo Nazarov

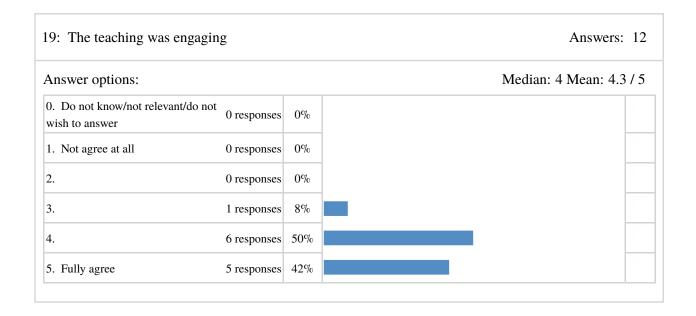


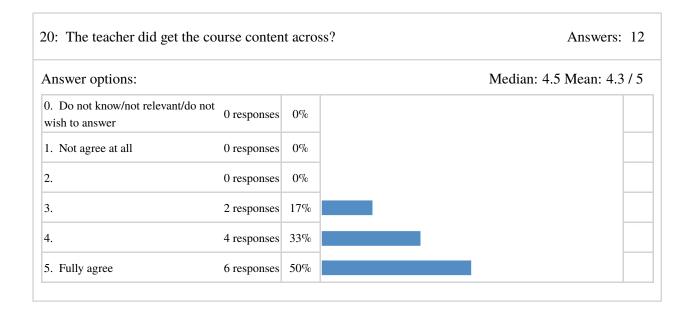




Main Teacher: Emilie Blanc

Answer options:			Median: 4.5 Mean:	4.3 / 5
0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not agree at all	0 responses	0%		
2.	1 responses	8%		
3.	0 responses	0%		
4.	5 responses	42%		
5. Fully agree	6 responses	50%		







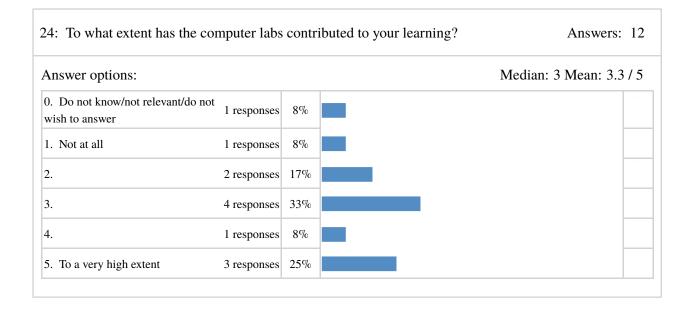
22: Is there anything in the teacher performance that should be improved?

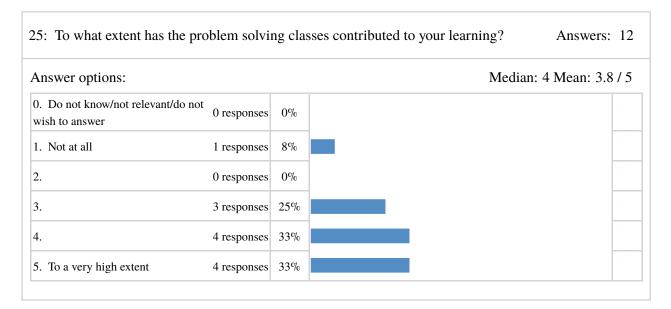
Answers: 3

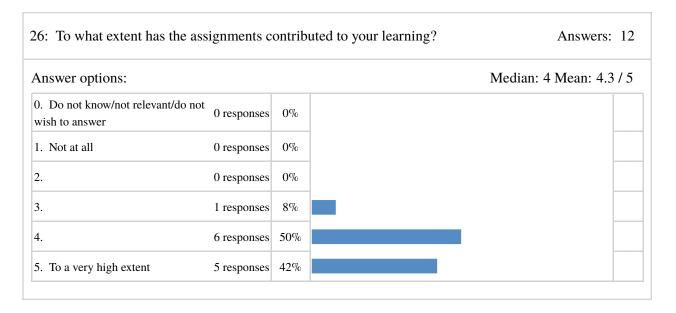
Learning activities

Different kinds of learning activities has been used througout the course. Evaluate how valuable these activities has been for your learning.

Answer options:			Median: 4 Mean:	4.0 / 5
0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not at all	0 responses	0%		
2.	1 responses	8%		
3.	2 responses	17%		
4.	5 responses	42%		
5. To a very high extent	4 responses	33%		



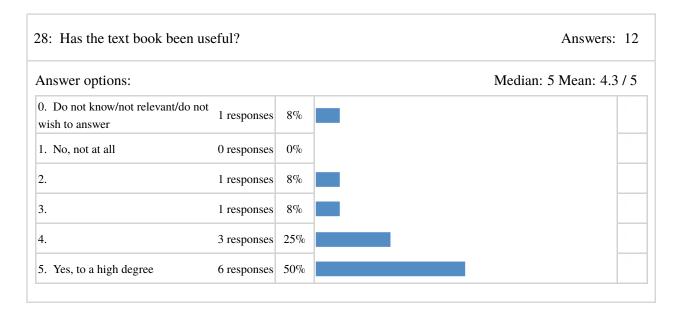


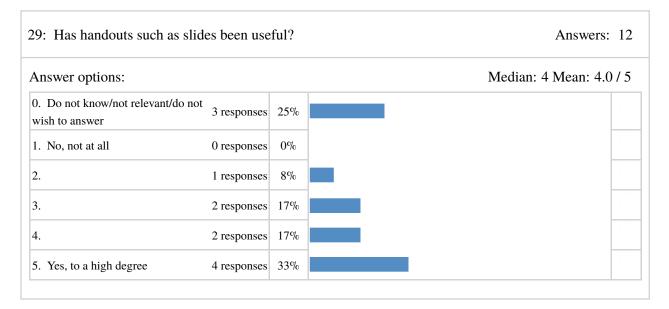


27: Comments related to learning activities	Answers: 2

Text books and course material

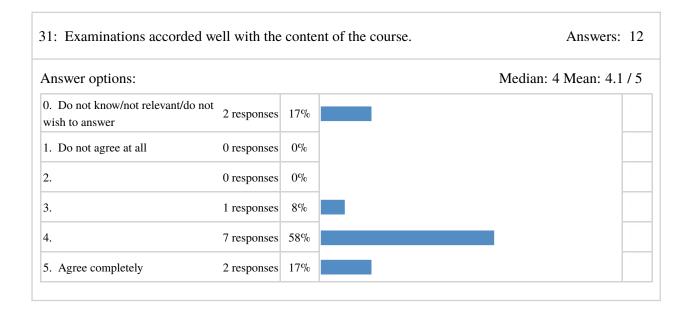
The text book *Larson, Mats G. and Bengzon, Fredrik: The Finite Element Method: Theory, Implementation and Applications* has been used in the course.

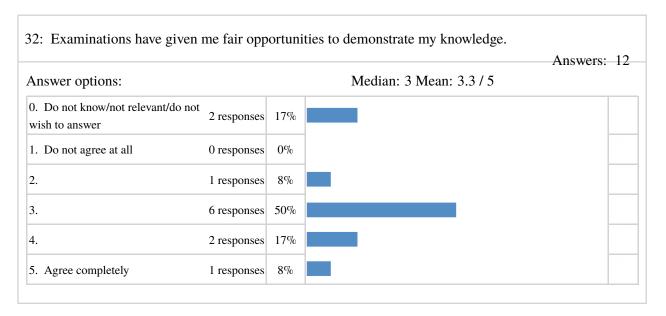


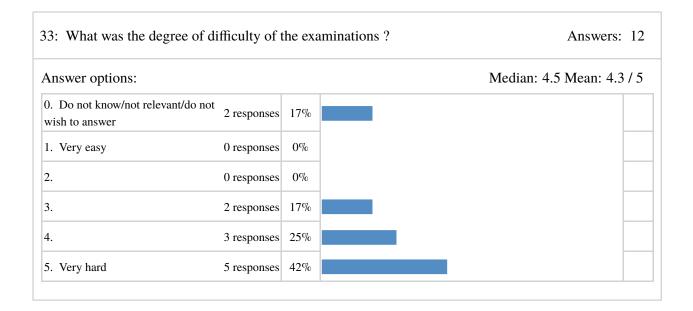


30: Comments related to text books and course material	answers: 3

Examination









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