

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 through 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

1: Which study program (or equivalent) are you registered on?

Answers: 12

Answer options:




0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Civil Engineering, Engineering Physics (F)	8 responses	67%	<div></div>	
2. Master Programme in Computational Science	3 responses	25%	<div></div>	
3. Single Subject Course	0 responses	0%		
4. Other programme	1 responses	8%	<div></div>	

2: What is your general view about the course?

Answers: 11

Answer options:

Median: 4 Mean: 4.2 / 5



0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Very bad	0 responses	0%		
2.	0 responses	0%		
3.	1 responses	8%		
4.	7 responses	58%		
5. Very good	3 responses	25%		

3: What was the degree of difficulty

Answers: 12

Answer options:

Median: 4 Mean: 3.8 / 5





0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Very easy	0 responses	0%		
2.	0 responses	0%		
3.	3 responses	25%		
4.	9 responses	75%		
5. Very hard	0 responses	0%		

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

Answers: 12

Answer options:

Median: 3.5 Mean: 3.5 / 5



0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Very low	0 responses	0%		
2.	1 responses	8%		
3.	5 responses	42%		
4.	5 responses	42%		
5. Very high	1 responses	8%		

5: Is the course relevant to your education?

Answers: 12

Answer options:

Median: 4.5 Mean: 4.5 / 5





0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not at all	0 responses	0%		
2.	0 responses	0%		
3.	0 responses	0%		
4.	6 responses	50%		
5. To a very high extent	6 responses	50%		

6: Has the course been stimulating and interesting?

Answers: 12

Answer options:

Median: 4 Mean: 3.8 / 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.	7 responses	58%		
5. To a very high extent	2 responses	17%		

7: Did the course administration (schedule etc) work?

Answers: 12

Answer options:

Median: 4 Mean: 4.1 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. No, not at all	0 responses	0%		
2.	0 responses	0%		
3.	2 responses	17%		
4.	7 responses	58%		
5. Yes, to a high degree	3 responses	25%		

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

Answers: 12

Answer options:

Median: 5 Mean: 4.3 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. No, not at all	0 responses	0%		
2.	0 responses	0%		
3.	4 responses	33%	<div></div>	
4.	1 responses	8%	<div></div>	
5. Yes, absolutely	7 responses	58%	<div></div>	

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.

11: Have you been informed about the learning outcomes during the course?

Answers: 12

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%		

12: In your opinion, the learning outcomes were met?

Answers: 12

Answer options:

Median: 4 Mean: 4.1 / 5

0. Do not know/not relevant/do not wish to answer	4 responses	33%		
1. Not agree at all	0 responses	0%		
2.	0 responses	0%		
3.	1 responses	8%		
4.	5 responses	42%		
5. Fully agree	2 responses	17%		

13: Comments related to learning outcomes:

Answers: 1





Teaching

14: The teacher-student communication and cooperation has worked well?

Answers: 12

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

15: The teaching was clear and well structured?

Answers: 12

Answer options:

Median: 4 Mean: 3.8 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not agree at all	1 responses	8%	<div></div>	
2.	1 responses	8%	<div></div>	
3.	3 responses	25%	<div></div>	
4.	2 responses	17%	<div></div>	
5. Fully agree	5 responses	42%	<div></div>	

16: The teaching was engaging

Answers: 12

Answer options:

Median: 4 Mean: 3.8 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not agree at all	0 responses	0%		
2.	2 responses	17%	<div></div>	
3.	2 responses	17%	<div></div>	
4.	4 responses	33%	<div></div>	
5. Fully agree	4 responses	33%	<div></div>	

17: The teacher did get the course content across?

Answers: 12

Answer options:

Median: 4 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.	0 responses	0%		
3.	2 responses	17%	<div></div>	
4.	5 responses	42%	<div></div>	
5. Fully agree	5 responses	42%	<div></div>	

Main Teacher: Emilie Blanc

18: The teaching was clear and well structured?

Answers: 12

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%	<div></div>	
3.	0 responses	0%		
4.	5 responses	42%	<div></div>	
5. Fully agree	6 responses	50%	<div></div>	

19: The teaching was engaging

Answers: 12

Answer options:

Median: 4 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.	0 responses	0%		
3.	1 responses	8%	<div></div>	
4.	6 responses	50%	<div></div>	
5. Fully agree	5 responses	42%	<div></div>	

20: The teacher did get the course content across?

Answers: 12

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.	0 responses	0%		
3.	2 responses	17%	<div></div>	
4.	4 responses	33%	<div></div>	
5. Fully agree	6 responses	50%	<div></div>	

21: What did the teachers do particularly well in this course?

Answers: 4

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

Answers: 3

Learning activities

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

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

Answers: 12

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%	<div></div>	
3.	2 responses	17%	<div></div>	
4.	5 responses	42%	<div></div>	
5. To a very high extent	4 responses	33%	<div></div>	

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

Answers: 12

Answer options:

Median: 3 Mean: 3.3 / 5





0. Do not know/not relevant/do not wish to answer	1 responses	8%		
1. Not at all	1 responses	8%		
2.	2 responses	17%		
3.	4 responses	33%		
4.	1 responses	8%		
5. To a very high extent	3 responses	25%		

25: To what extent has the problem solving classes contributed to your learning?

Answers: 12

Answer options:

Median: 4 Mean: 3.8 / 5




0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not at all	1 responses	8%		
2.	0 responses	0%		
3.	3 responses	25%		
4.	4 responses	33%		
5. To a very high extent	4 responses	33%		

26: To what extent has the assignments contributed to your learning?

Answers: 12

Answer options:

Median: 4 Mean: 4.3 / 5

0. Do not know/not relevant/do not wish to answer	0 responses	0%		
1. Not at all	0 responses	0%		
2.	0 responses	0%		
3.	1 responses	8%		
4.	6 responses	50%		
5. To a very high extent	5 responses	42%		

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.

28: Has the text book been useful?

Answers: 12

Answer options:

Median: 5 Mean: 4.3 / 5






0. Do not know/not relevant/do not wish to answer	1 responses	8%		
1. No, not at all	0 responses	0%		
2.	1 responses	8%		
3.	1 responses	8%		
4.	3 responses	25%		
5. Yes, to a high degree	6 responses	50%		

29: Has handouts such as slides been useful?

Answers: 12

Answer options:

Median: 4 Mean: 4.0 / 5

0. Do not know/not relevant/do not wish to answer	3 responses	25%		
1. No, not at all	0 responses	0%		
2.	1 responses	8%		
3.	2 responses	17%		
4.	2 responses	17%		
5. Yes, to a high degree	4 responses	33%		

30: Comments related to text books and course material

Answers: 3





Examination

31: Examinations accorded well with the content of the course.

Answers: 12

Answer options:

Median: 4 Mean: 4.1 / 5






0. Do not know/not relevant/do not wish to answer	2 responses	17%		
1. Do not agree at all	0 responses	0%		
2.	0 responses	0%		
3.	1 responses	8%		
4.	7 responses	58%		
5. Agree completely	2 responses	17%		

32: Examinations have given me fair opportunities to demonstrate my knowledge.

Answers: 12

Answer options:

Median: 3 Mean: 3.3 / 5





0. Do not know/not relevant/do not wish to answer	2 responses	17%		
1. Do not agree at all	0 responses	0%		
2.	1 responses	8%		
3.	6 responses	50%		
4.	2 responses	17%		
5. Agree completely	1 responses	8%		

33: What was the degree of difficulty of the examinations ?

Answers: 12

Answer options:

Median: 4.5 Mean: 4.3 / 5

0. Do not know/not relevant/do not wish to answer	2 responses	17%		
1. Very easy	0 responses	0%		
2.	0 responses	0%		
3.	2 responses	17%		
4.	3 responses	25%		
5. Very hard	5 responses	42%		

34: Comments related to examinations

Answers: 4

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