# Course evaluation for [Dynamic Problems in Solid Mechanics](#) (SE2134, 7.5 credits, VT2019)

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Background

This was the 8th year I was responsible for the course. The overall structure of the course described in the previous evaluation was preserved. This year, I had a new teaching assistant, Buğra Üçel.

This year, the grade distribution has changed with few students aiming at a higher grade.
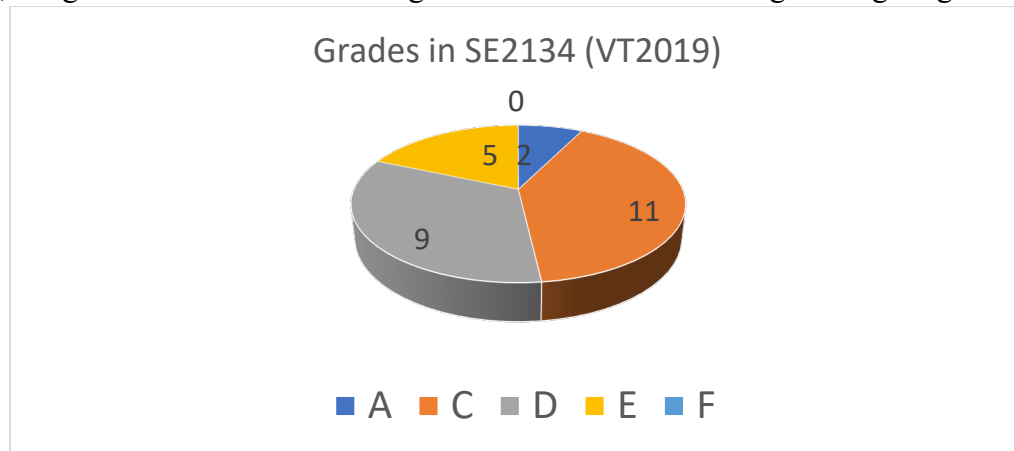
Problems identified during the previous course round and implemented measures

Problem 1. Introducing a new teaching assistant creates turbulence in the course.

The structure of the course is demanding on the preparedness level of the teaching assistant event though this could be an experienced Ph.D. student. The iterations and mistakes made during the corrections, and tutorials may discourage and frustrate the students.

Solution proposed:

Have greater control of the corrections and tutorials during the first introductory year of the course.

Solution implemented:

The data transition between the course rounds was established. Prior to every correction, the meeting was held to identify the problems.

Problem 2. Students stop reading the book.

This year, we have noticed that few students continued reading the book prior to classes. It was visible from the performance on the reading quizzes during the lecture. It is not clear whether it is due to being accustomed to the electronic sources or something else.

Solution proposed:

To investigate this, we will include a more detailed question about it in the next course evaluation. We will include the online material as an alternative preparation source before the lecture.

Solution implemented:

The addition book was introduced along with the material as proposed. Fewer people bought the book and the rest indicated that the substitutional material was fine.

Problem 3. Students do not strive for a better grade.

More students settled with a lower grade than usual. There was no strong core of the students taking the lead. It was also reflected in rather an unlively discussion in the Facebook group.

Solution proposed:

Probe the feeling about the ambition level earlier in the course to take the corrective actions if needed. They may include additional stimulation, emphasizing the relevance of the questions.

Solution implemented:

We implemented the propose solution. It did not bring much effect. Talking to the students, we realized many of them optimize the workload and divide it between the course. Being comfortable with the achieved grade, they discontinue pursuing a better one.

Problems identified during the current course round and proposed measures

Problem 1: Students strive for a better grade according to the survey but give up.

Although a number of students indicated a better grade desired, they did end up having it. There is a clear dissonance between the expectation and what they write below it (see the answers). Collision with our exams was unfortunate this year. Even the students who helped others were affected. The work pressure was large compared to other courses.

Solution proposed:

We conceive an idea of nominating the "best helpers" in the course. This people will get an extra grade for helping others.

General observations and comments

According to the survey conducted among our track students by Carl Dahlberg (carldahl@kth.se), the course was rated among the best in the Solid Mechanics track.

We decided to carry on the response to the recurring comments:

"Binary grades for the tasks are unfair!"

The grades are given after the revision. With this condition, it is fair to expect the correct answer upon resubmission. In the real world, one cannot design a structure to grade C.

"Seminars are redundant!"

The purpose of the seminars is to learn how to work in a group in a competitive environment. Some people will sabotage, some people will create tensions. However, not every negative experience is a bad experience.

"The course is too demanding!"

Getting the best grade should be difficult. In this course, one can leverage the load and trace the progress.

Students' responses to course evaluation questionnaire

Course evaluation for Dynamic Problems in Solid Mechanics (SE2134, 7.5 credits, VT2018)

Respondents: 35
Answer Count: 35
Answer Frequency: 100.00%

Please, tell the reason why you decided to take this course.

| Please, tell the reason why you decided to take this course. |
| --- |
| I took this course as I am going to make a PhD, which will deal with dynamic problems in helicopters gearboxes. |
| Since it is super relevant to solve dynamic problems and not just stationary ones I thought this course could be one of the most important ones in my masters. |
| It was one of a very limited number of courses mandatory for me studying a master in applied mathematics with background in mechanical engineering. |
| It was part of the recommended courses for the master |
| It was mandatory for the technical track of the master in applied mathematics. |
| It seemed like an interesting subject and one that could be very useful in any future endeavor. |
| I am a solid mechanics track student, dynamic is a vital part of solid mechanics. |
| I had heard a lot of great things about the course and Artem from previous students, almost everyone who have taken the course recommended it |
| Mandatory course for mechanical engineering at EPFL |
| This course maps back to another course in my home university which fulfills my graduation criteria |
| It is mandatory in our exchange Learning Agreement |
| It was a mandatory course for my program |
| It was a mandatory course for my year. |
| It is a course that contribute to my engineering background. |
| Because I am highly interested in Vibration in structures in general since my previous studies due to their appearance in many cases in civil-mechanical engineering. |
| To have deeper understanding of the relationship between vibration and mechanics |
| It's mandatory. |
| Because i heard from students from the previous year that it would be challenging and that is usually a good indicator for taking it. I have also read courses in my bachelor that utilizes similar techniques with regard to modal analysis (Sound and vibration, Applied signal analysis) and fourier transforms/series & Laplace transforms and i thought it would be nice to couple it with solid mechanics. |
| To gain skills to be able to solve dynamic problems in solid mechanics. |
| I took this course to improve my skills in structural dynamic (I already followed a course in dynamic in my home university, and I wanted to review the programm). |

20 (33)

What is the grade you aim at in this course?

What is the grade you aim at in this course?	Number of Responses
A	7 (20.0%)
B	8 (22.9%)
C	7 (20.0%)
D	7 (20.0%)
E	6 (17.1%)
Total	35 (100.0%)
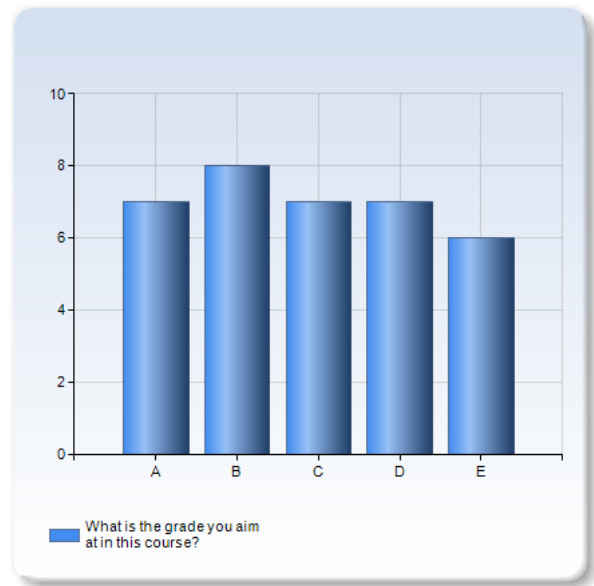
	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
What is the grade you aim at in this course?	2.9	1.4	48.1 %	1.0	2.0	3.0	4.0	5.0

Comment
As I wasn't able to attend the exam.
It was the last course in Sweden, so a Pass was enough
It's not that I don't want an A, it's just that I have other exams as well that require my attention, and since you can get a B from the homeworks, it seems reasonable. L
Usually I aim as high as possible for every course but the workload was very high for the Home Assignments and I have to balance school, job and personal life, hence I decided not to do the last assignment
none
However it is very difficult since the Homework assignments were quite difficult and very strictly graded. And the exam also is very demanding.
I didn't aim at any specific grade.
Missing the final answer for the problems, that is really disappointing to work on a exercise and not know at the end the real answer after several hours working).
However, Grading isn't fair for such an interesting course. you can get B by doing so much hard homeworks where most of people spent time copying each other. I personnaly handled/helped the solution to many students (by the way, the problems are very interesting!)... People at the end do not understand the course even if they spend 10h on the homework each week, because this time is spent with unfortunately a mindset of: ' I want to validate the course' rather than understanding....
Other problem is that the course don't take into account people who follow 3 courses as the same time (I had experimental structural dynamics, Fibre Composites, Dynamics and swedish course). Therefore, I had to neglect swedish and almost neglect Fibre composites just to work on the homeworks.... At the end, I might end up with a 'C' and it will be the only 'C' in my full 'A' transcript... I prefer a fair grading with an exam with 36 points just like the other courses, where one can see if a student knows how to model the problems, knows if it is discrete or continuous system for instance, what equations to use, modal superposition etc...
I usually get a low grade so since it was told to be a hand course an E was enough
My goal was to pass all the homework assignments and any points on the exam would be a bonus.
Grades aren't my real priority but it is always fun to get a high grade in something you think is fine
Does not matter for my home university.
I got a C. Im happy with the grade, the grades are relative and this course is the hardest course I ever taken.
What is the grade you aim at in this course?
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20 (35)

Please, list the previous courses which you think are needed to succeed in this course?

Please, list the previous courses which you think are needed to succeed in this course?
Some general solid mechanic courses, like Timoshenko and St Venant theory at least.
FEM, Solid Mechanics, Differentials.
Solid mechanics, FEM, differential equations, numerical methods, fourier analysis(?)... etc.
A strong mechanical background is required, but I'd say Applied elasticity with FEM is a good start
I had only taken one previous course in solid mechanics, the basic course SE1010. I do not think that was enough. I did not know how to use Ansys for example and it it took a wile to remember the mechanics.
Obviously as much solid mechanics as possible, and preferably extensive knowledge in differential equations.
FEM for Engineering Applications
Material Mechanics
Applied elasticity with FEM
A course in differential equations is highly recommended, algebraic courses and math courses in general. I wish a had done acoustics and vibrations, I believe that would have helped a lot in the beginning
FEM course more than useful
statics and kinematics analysis
Mecanics of structures; FEM
- FEM for engineering applications
- Structures and solid mechanics
Solid mechanics, Fem and mechanics of structures
Finite element method + basic course of dynamic system
According to my previous studies. All mathematics courses and some numerical courses.Basic Physics, strength of materials are also needed.
Material mechanics
Differential equations
Dynamics
Solid mechanics basic course, FEM.
Differential equations, knowledge of Fourier series/transforms and (not so much perhaps) Laplace transforms. Solid mechanics basic course is also necessary.
FEM for Engineering Applications.
The FEM class from the aerospace master programm was essential (when one's don't have the structural background of the solid mechanic programm).

20 (33)

Were the objectives of the course (as stated per course description) aligned with the course activities? Please, elaborate on your answer.

| Were the objectives of the course (as stated per course description) aligned with the course activities? Please, elaborate on your answer. |
| --- |
| Yes. |
| Yes everything followed a very clear structure which was easy to understand throughout the course. |
| Yes, there were so many activities so nothing could have been missed. |
| The objectives are reached when solving the full homeworks, but the way there is difficult |
| Yes, I think so. I just didn't realize how advanced the course was. |
| Even though it might not have felt like it at the time, in retrospect I feel like every part of the course had its own purpose and it fulfilled that purpose. |
| Yes |
| Yes. The home assignments were based on the chapters that were in focus during the time frame of the hand ins. The assignment and reading schedule is well thought through, which helped me plan my reading and studying overall in this course too. |
| Yes this course improved a lot my analysis on different engineering problems. |
| Yes. The course materials (lectures, homeworks and seminar) were highly related to real world situations, which allowed us to apply the knowledge learnt well. |
| Yes, it gives a lot of tools to apprehend real life problems |
| Yes, the class activities were appropriate to achieve the objectives. |
| Yes, every objective was followed throughout the period |
| Yes it is very close to what is stated in the course web page. |
| Yes they were very aligned. |
| Yes,the course did intensively discribe and analysis system with various degrees of freedom with application in FEM |
| Yes |
| Yes, the course activities aligned well with the course objectives. I personally feel I had good learning through lab and seminars. |
| I think that objectives are aligned with the activities. I'm not too sure the seminar worth it. |
| I thought seminar was not really useful |

20 (30)

Please, name three activities you have spent most time on during this course.

Please, name three activities you have spent most time on during this course.	Number of Responses
Solving the recommended problems.	8 (22.9%)
Working on the homework assignments.	35 (100.0%)
Attending the lectures and recitations.	26 (74.3%)
Reading the recommended material.	22 (62.9%)
Preparing for the seminar.	13 (37.1%)
Something else (please, specify)	1 (2.9%)
Total	105 (300.0%)
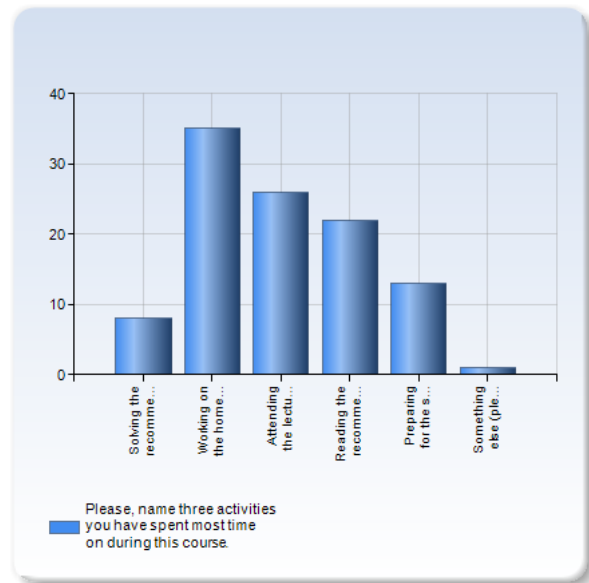
Please, name three activities you have spent most time on during this course.

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
Please, name three activities you have spent most time on during this course.	3.0	1.2	40.0 %	1.0	2.0	3.0	4.0	6.0

| Comment |
| --- |
| I went to all classes, but literally all the remaining time had to be spent with the homework assignments. The recommended material was read to try to find a solution to the home assignments. |
| 95% of the time is solving the homeworks |
| You learn a lot when attempting to solve the homeworks. I spent about 60h per assignment and they are no joke. The lectures were very good and very meaningful, but you do really need to read the recommended chapters to be able to make the most of the lectures. |
| I did not solve that many problems in the book because there were no answers, and I'm not saying that there has to be a solution. I get that the student should have to solve it by him/herself, but it would be helpful if the final answer (expression, value, etc.) was stated somewhere. |
| Home assessment is quite time-comsuming and difficult, but second chance for submission is good. |
| I red a lot in the compendium and the Timoshenko book, it gave a greater understanding of the topics that were brought up in the lectures. |
| homework assignments took up majority of the time |
| none |
| I did poorly in preparing before lectures, but i didn't feel like i needed to, i used the lectures to dive into the topics deeper afterwards. |
| HW took most of the time!!! |
| Attended close to all lectures |
| The homework's was priority one and combination of reading and the lectures gave a good foundation to be able to do the assignments. |
| The homework assignments were extremely time consuming and constituted the majority of time spent on the course. |
| Reading relevant material I found on the internet. |
| At first I did the recommended problems but then things got out of hand and I did not have time to do them. All my focus where then on the home assignments. |
| Please, name three activities you have spent most time on during this course. |
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20 (105)

Did you purchase the Timoshenko book?

If you bought the book, please describe how you used it in the course.	
If you did not buy the book, please tell why and how you went about it.	Number of Responses
Yes	5 (15.2%)
No	28 (84.8%)
Total	33 (100.0%)
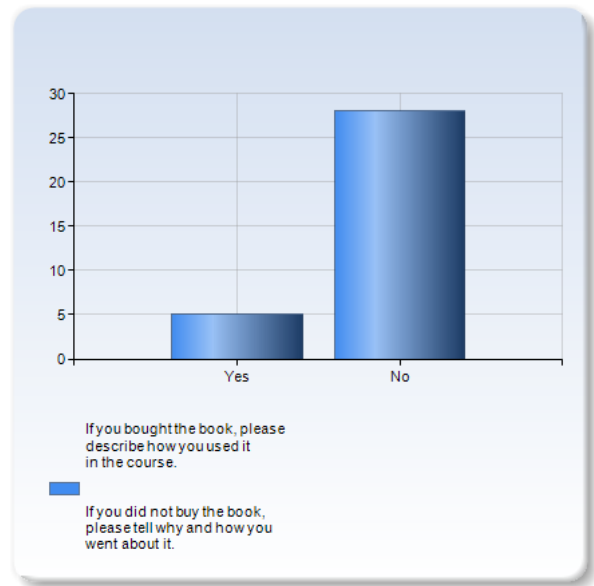
If you bought the book, please describe how you used it in the course.

If you did not buy the book, please tell why and how you went about it.

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
If you bought the book, please describe how you used it in the course.								
If you did not buy the book, please tell why and how you went about it.	1.8	0.4	19.7 %	1.0	2.0	2.0	2.0	2.0

Comment
Too expensive. I used some internet support and course material to balance the lack of the book.
Super useful, don't know how we would have solved some of the problems without it
I think it's quite expensive, and the handbook is enough in my opinion
I thought the other book and exercise-book was good
I did not buy the book, mainly because it wasn't available for purchase at school and it is very expensive. It is not an absolute necessity, and I doubt I would have had the time to read it even if I had bought it.
I search related information on Internet.
I read the recommended chapters before each lecture for most of the course. Stopped reading prior to lectures when I had too much to do in other corses and the recommended reading was ~ 60-70 pages.
great book i recommend it
I either worked together with classmates who had access to the book, or found the relevant information online.
It is too expensive and the course litterature was enough
It was too expensive. I used a lot of internet resources (google scholar, material from old courses)
I found a free online version on internet
The alternative books were also helpful and free!
The book is expensive. I used some other references.
I thought it was way too expensive from the start, however, i actually regret not buying it, since i ended having to search a lot on the internet for material, and trying to look things up in old course books which was ineffective. I probably would have learned more if i would have bought it.
I referred to the book available in the library for important topics.
I used my old course book.
Timoshenko book was too expensive.
Too expensive, but it is a really interesting book!
It was too expensive, I didn't find it relevant to spend so much money on a book. I just used the appendix of the course
Too expensive

20 (30)

If you bought the book, please describe how you used it in the course.

If you did not buy the book, please tell why and how you went about it.

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20 (34)

What are the activities you benefited the most in this course? Please, reason your answer.

What are the activities you benefited the most in this course? Please, reason your answer.
The homeworks, as it warps lot of knowledge acquired during the engineer studies.
Even though I disapprove of the home assignments, the idea isnt bad. I liked that we were taught how to approach new problem with mathematical modelling like we did on the lectures and tutorials.
I really appreciated the tutorials, as the exercices' level was, in my opinion, really well calibrated
Exercises, lectures and homeworks. Mostly homeworks I think because I learn most if I do something by myself.
As previously mentioned, the lectures were very good and very rewarding (if you had read the chapters beforehand). And spending a lot of time on the homework will no doubt force you to learn, as this is no ordinary 7.5 cr, it took a lot of time but in the end, it was worth it.
The computer lab, I originally know little about workbench and ansys, now it's better.
The lectures are really interesting, and makes you want to learn more about the subject! The information given in the lectures are not enough to take you through the whole course, but gives a broad understanding about the subject, then you need to read the book or do some assignments in order to really learn the material.
homework and laboratory
Homework assignments. While they were difficult, the allowance for resubmission gave a lot of room for learning, and the teaching assistant and lecturer were most approachable and helpful in the problems, providing valuable guidance.
The homeworks because it puts in practice what we see in class
The homework assignments helped me improve my general engineering education. However, I found that there were not always purely connected to the material studied in class or in the handbook, except for some question or parts of questions. By that, I mean to say that it was impossible to solve the exercises relying only on my previous knowledge and the course material. I had to look for a lot of additional information by myself in litterature or internet
I definitely benefited most from the Homework assignments. I feel that they really made us dig for the answers especially since everything needed to be correct. It also helped me understand a lot more the subject as a whole.
The home assignment are very helpful even though they are time consuming
Homework assignments-> analytical skills , real problems...etc Seminar-> creative research in internet and research articles labs-> interesting real problems
Homework since it requires a lot of work
Homeworks
Homeworks, they required most time and were challenging. However, i think the homeworks might take too much time focusing on a narrow branch of problems instead of broadening the scope of the material a bit. What i mean is that sometimes you end up polishing your answer for so long that it seems like you could be more productive doing something else..
According to me, the lab questionnaire was very good and answering them gave me a good understanding of the theory and practical problems. So, I think attending the lab and seminar as well had a good impact.
The home assignment are really interesting, but the problems could be better defined at the beginning. However, answers could be given with the grades.
FEM part since it was the only part i haven't seen in the similar course i had last year. Besides, it was fun doing so much hard problems....(but i don't think it was funny for everybody)

20 (32)

Knowing that the homework takes a lot of time, did you consider a full exam as an alternative? Did you seek and receive enough help in coping with it?

They were time consuming, that's right. But they were doable enough using the professor's help. On the other hand, It is optimistic to take another course at the same time.

Never

It was evident that the course was designed to be carried out doing the homeworks, the exam seemed to be almost more brutal than the home assignment so I would never have gone for that. I sought and received lots of help, but we were all still struggling with the homeworks.

As I knew I passed the course before the exam, and the difficulty of it, I didn't consider it as an alternative

I think it's good with homeworks as an alternative for the exam but I think the homeworks was too time consuming, I did not really have that time which was needed and becase of the deadlines was on every Saturday I got no time to relax or have fun for the whole period.

I got help if I asked but felt like my questions might be too basic for this advanced course.

To be honest I didn't even realize that it was an option until the last lecture, so no. But even if i has known, I doubt I would've "chosen" to take the full exam. The TA was very helpful during the homeworks and it would've been almost impossible to make it without him. Also, being able to share thoughts and ideas with the rest of the students has been invaluable throughout the course.

I didn't consider taking exam, too difficult for me, So I spent most time in home work, I normally did it with my friends, we talk and discuss, learned a lot.

No. I believe that in a course like this one, where there is a lot of material and each assignment is this time consuming and often quite hard, I learn more from discussing with my classmates, that's why I focused on the HA. Yes, both Artem and Bugra are great at answering all of the questions that might arise during the course

I made my best for the homework i hope i will have the required grade to have the exam with less stress

No, i did not consider the full exam as an alternative and aimed to do the homework as best as I could. Yes, I worked with classmates on the homework, and would highly recommend others to do so.

I prefer the homework format, so that we can understand the concepts as we go in the course. We recieved enough help as whenever we had a question we always get an answer trough the teacher or assistant.

If the binary notation is kept, having only a final exam would be a disaster.

Yes, the teacher the teaching assistant were very reactive to emails. Also, the teaching assistant was very available and very helpful when we needed to come ask questions in his office! That was really appreciated and of great help, regarding the fact that the notation is binary.

I felt that the homework assignments are the best option especially if the notation is binary. They allow us to understand the subject a lot better and forces us to work throughout the period. I did seek help and the answers always came really quickly which was very helpful.

No I didn't consider the exam as an alternative.

I received all the help needed to solve the problems as both the teacher and the assistant are free to answer questions during the week.

Yes but however it is very hard and demanding according to previous re-exam seen.

Yes, I did considered to have a full exam. I couldn't seek for help due to personal reasons. But the instructor did all the best

No

No, i actually missed out on this information, probably my own fault though. If i could take a full exam i might have preferred that.

A full exam wouldn't have met the course objectives. I would always prefer homework for this course as the problems were very good, also covered most of the topics, and then getting feedback on the first submission gave me a deeper understanding.

I did not considered a full exam as an alternative.

20 (33)

Please, suggest how the course can be improved (homework, lectures, tutorials, labs, seminar, etc.). In addition, if you think that the course load does not correspond to 7.5 credits, what are the activities that should be dropped in order bring the workload to the expected level?

I think the seminar might be the thing that should be dropped if anything since it just felt like a thing that we had to do but didn't benefit from

An unreasonable emphasis was put on the homeworks, and they were unreasonably hard for the level we were at in the course. They were an incredible time sink that only generated a disproportional level of stress in all of the students. The course evidently does not correspond to 7.5 credits and grades in any other course done simultaneously will suffer greatly. I recommend that you drop at least one homework and rethink how you design the problems so that the students can actually apply what they learn on the lectures to solve the problems.

This course is the most time-consuming course of the year. It is worth at least 9.0 or 10.0 credits with the amount of work currently required. If 7.5 credits is kept, I recommend to make the homeworks easier (something like the tutorials for example)

Smaller homeworks, set the deadline to another day than Saturday. Since the homeworks are very complex and hard the students will contiue to work until the last day and its bad for their health to never have free time in the weekends.

Honestly, I think this has been one of the most well-structured courses I've taken this far. I know that in terms of feedback, it's the most useless thing you can hear but I really do think that it has been one of the best courses I've taken. It's been really hard, but really fun.

I think now it's pretty good.

The grading of home assignment need to be improved, it should not be 3 points for one home work and 1 pt for per problem. I did most part correct in one task, only one minor mistake, but still lost that point, so I suggest instead of 1 pt, 10pt per task and 30 per homework. And instead of giving B C D grade based on how many tasks solved, should based on final points (grades get/30x3)

I think the course is fine as it is. Yes, the HA takes A LOT of time, but as all the other parts of the course also fulfills their purpose, none of them should be taken away.

I think this is a great course, the material is perfect, the homework make us study a lot. I wish i spent more time during the actual lab than answering the questionary.

More structured help for the labs would have been good, especially for Lab 1. It would have been helpful for those without experience in ANSYS. I feel the course load would better match 7.5credits without the seminar/one less lab.

For the homework, I would prefer if the grading system was more rewarding of the efforts put in, like a non binar grading system.

Maybe the seminar can be dropped as I don't think it contributes that much to the course and it can be hard to work in very big groups.

The binary notation is really frustrating, because a slight error can lead to the total miss of the exercise point. I get that if an engineer makes a slight mistake, it can lead to the breakdown of a bridge, however, such a construction is made by a group of engineers who take years of group work and multiple revisions of the project before constructing it.

Labs could be dropped because they were not really helping with the comprehension of the course, plus the validation of the lab is a lot (100% of questions correct) regarding the time spent in class.

I think that the binary notation for the HW is not great because we really spent a lot of time on some problems and if you get 0/1 just for a sloppy mistake it fells a bit unfair. The labs are maybe not the best part of the course and could potentially be dropped as there is not really any evaluation on the ansys part.

They could be maybe more tutorials and shorter home assignment.

I think this course corresponds to a workload that is higher than 7.5 credits, home assignment could maybe be a little shorter.

you can reduce the amount of workload for the homeworks by reducing their difficulty.I do not think that section must be dropped in because it is very helpful all of them(labs,seminar,tutorials,lectures..)

I suggest to have a pre quiz or pre assignment to build for the homework need knowledge. So the quiz/assignment work up to required homework level so solving homework can be done effectively

The course load is high and should be awarded more credits. The seminar could be dropped.

I felt at many times that i just didn't know where to look for certain methods, like 'duffing equation', or how to deal with ground motion etc, i was able to find this after my own google searches - this just stresses how good it would've been to have the book!

Also, i don't think the course is too much work load in proportion to 7.5 credits. 1.5 credits corresponds to 1 week full time work - 40hrs, in total that is 300 hrs work, or 12,5 days. I did not have to put that many hours in to this course so therefore it wasn't too much in my case.

I think the course was very well conducted. According to me, the lectures can be done at a slow pace. I know that the professor suggested going through the reading material before the lectures, but still..

The seminar could be dropped.

The homeworks are very hard and most of people don't understand and spend time copying each other to be honest.... And many people did not understand for instance the other introduced physical notions. For instance, Homework 1 problem 2, I personnaly did the exercice without any help since i had dynamic fluid courses before. But when I saw the exercice I said : Ok, should use Poiseuille flow... But wait, people in this course have only done Solid mechanics course? how will they deal with this one? Even if the professor helped them, They didn't really care about understanding but rather writing the solutioN.... 2nd example: Homework 3 problem 2, I remember I used Duffing equations (because I have seen it last year) but I forgot to connect Delta N and d²w/dx², which was then given to me by the professor who took the opportunity to send a description about Duffing equations to everyone.... however, helping other friends, they didn't understand the purpose of Duffing equations....
The alternative I suggest:
-between 4-6 problems in each homework, mostly application of the course knowledge but keep only 1 problem advanced. One can pass the homework if he does the problems (like 3) that are application of the course lectures. Keep only 2 homeworks if labs and seminar are kept (which are very good!)
- Grading: Exam just like the other courses.

Would you recommend taking this course to your younger colleague? If so, what would be your recommendation on how to succeed in this course?

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Don't take any time consuming course next to this one. It is difficult to validate it, so d'ont take it if you cannot focus on it.

Yes I would, it was the toughest course I have read but I'm very happy that I did read it since it pushed the problem solving experience to a whole new level.

Even though I enjoyed the subject and the teachers (helped me to an incredible extent with the home assignments), I could never recommend this course as long as the home assignments are in the state they were when I did the course. My only recommendation is to quickly find a lot of colleagues to try to tackle the problems with together, it is also incredibly inconvenient to have other courses meanwhile, so avoid that too.

Yes, because it's interesting, but I would warn him that the work load is enormous

Not to a student in applied mathematics. Only to a student who are realy intrested in solid mechanics and dynamics, have the time and not other big courses the same time. It is an intresting course but i would warn them that it is hard and tell them to start with the homeworks early and work with the course every day.

I would absolutely recommend this course. It is a real challenge, but the subject is really interesting and useful to have. I've wanted to take this course ever since I took the basic course during my second year at KTH. But be aware that this is not a course that you can just stroll through and expect to pass. The workload is extreme at times but to be fair, I didn't have to work as hard as I did on the homework given that the exam is an option. As long as you structure your studies in a good way, there's no reason that this has to be a harder course than any other. I think that one of the reasons this course felt so hard is because I actually care about the subject and want to do the very best I can as opposed to just wanting to pass the course. Additionally, it is not like any other 7.5 cr course I've ever taken, but now that it's over, I feel like it wasn't that bad after all.

Maybe, I am not sure.

Definitely. I would recommend them to not take any heavy courses together with this course (not even 7.5 credit courses). If any other course if combined with this one, make sure that it only has an exam, the workload until the middle of May is very high if one aims at a high grade. Last but not least, ask questions to Bugra and Artem if you are totally stuck, they give great answers and explain the subjects in an understandable manner. However, do this after reading the recommended pages and discussing with your classmates!

I would suggest to work a lot on the homework because they make you understand the course.
Than you!

Yes, as the large amount of hands-on problem solving results in alot of learning. To succeed in the course, a lot of self-directed and self-motivated learning is required, so consistent work is important.

I would recommend to people who don't mind working a lot during the semester. I would recommend to work in group and start the hw as soon as possible as they can take a lot of time.

If they come from the same uni as me, they won't have the choice, I would just tell them to be prepared to work seriously throughout the period and to not hesitate seek for help.

I would recommend it but I would warm them that it is very difficult and that they should work regularly otherwise they will never pass.

I would recommend taking this course as it is very interesting. To succeed I would advised you to work a lot on the home assignment as soon are they are available so that you have time to ask questions to the assistant or professor if you were to be stuck in some part of the problem.

As mentioned very interesting and "real" course. I would recommend but also would inform him about the very high demand and intensive workload.

Yes, it is great course but I hope that my suggestion or similar idea could be implemented for better results in the assignments 🙂

If they have interest in this area and if they are able to put much time. To succeed, one should work hard for the homeworks, and start early with them.

Yes, its the best course so far on the solid mechanics track! Try to discover things and work on your own to reach what is your own difficulties in certain areas. Often people solve the homeworks together without ever working by themselves, which means that you do not develop enough skills by yourself and therefore might not become so proficient as you would've been if you worked by yourself more.

Yes, I would definitely recommend taking this course. Follow the advice given by the professor because he is the one who has designed the course and knows how one can achieve the best result and course objectives.

I would probably not. Too much work, even if interesting and missing the opportunity to improve your grade once you'll fail one exercise.