Algorithms and Data Structures III, 5.0 c

Course code: 1DL481, Report code: 61034, 33%, DAG, NML
week: 04 - 12 Semester: Spring 2020 (2020-01-20 - 2020-03-22)

Result

This evaluation is answered by 54% (21/39) 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.

1: Overall, how satisfied are you with the course?

Answers: 21

Answer options:

Median: 4 Mean: 4.4 / 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	5%	☐
4.	11 responses	52%	☐
5. Extremely	9 responses	43%	☐

2: Is the course relevant to your education?

Answers: 21

Answer options:

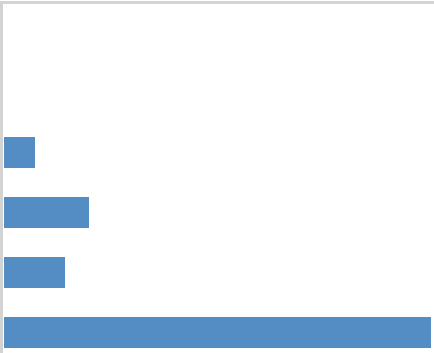
Median: 5 Mean: 4.8 / 5

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.	5 responses	24%	☐
5. To a very high extent	16 responses	76%	☐

3: To what extent have you made the effort to benefit from the course content? Answers: 21

Answer options: Median: 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.	1 responses	5%	
3.	3 responses	14%	
4.	2 responses	10%	
5. To a very high extent	15 responses	71%	



4: What has been your main source of information during the course? Course literature, Wikipedia, YouTube, lectures, some other literature, ... ?

Answers: 18

Lectures and Course Literature with Presentations
Lecture slides, Wikipedia and course literature
Lectures
Course literature and videos of courses from other universities.
Course literature, YouTube and lectures
The book and the lectures combined with a lot of googling(YouTube) and helpsessions.
Wikipedia
Slides and wikipedia
90% lectures and lecture slides, 5% wikipedia, 3% CLRS3, 2% stackoverflow
other course literature and youTube
Youtube and lectures
Lectures and course litterature
Mostly lectures + slides and googling.
Lectures, textbook
Lectures
Coursera, Lectures
For reductions and such the lectures were really good. Assignment 1 * MIP : Di's lecture along with examples and lecture slides found from googling * Tabu Search (and local search in general) : Coursera course - Discrete Optimization (Local search) https://www.coursera.org/lecture/discrete-optimization/ls-1-intuition-n-queens-ZRJeF This course was really good for general understanding of local search and getting a geometric understanding of neighborhoods and such. Assignment 2 SAT: The lectures were great SMT: The lecture was a good base but I also spent a lot of time looking at the documentation for z3 and trying different examples. However, the eureka moment happened when I was not spending time on the assignment, but was watching TV and finally figured out the problem.
Föreläsningar och kursböckerna

5: This has been especially good about the course:	Answers: 18

All, in general
Working on real-life problems with modern technology
Pierre expects us to perform at a very high standard. The courses I've had with him have been an eye opener to me, they are what I expected a university education to be. Most other courses feel like a continuation of high school with lax requirements and the possibility of passing without actually learning anything. So I'm both sad and happy that I've taken AD2 and AD3. They were both amazing courses, but leaves me with the feeling that other courses I've taken have been a waste of time.
I have highly appreciated the guests speakers to talk more in detail of a course topic where they are experts.
Amazing course. Justifiably challenging. Exercises such as in this course and AD2 make learning fun and effective. Very clear instructions.
The teacher and assistants ability to understand what is hard and act accordingly. Really clear instructions and requirements. Great feeback on why and what one did wrong. General feeling of a higher level of education. I get the feeling that im really studying on a university level.
Gustav
The lectures have been very good, the assignments have been very giving.
Probably the best course I have taken. Everything, from the course website, to the assignment descriptions, to the lecture slides and to the grading criteria is exceptionally precise, articulate, clear and just... fair! The topics are difficult but rewarding, the lectures and their slides were all fantastic, the guest lecture was a perfect way of showing how some of the course topics are used in industry. The assignments were enormous in scope but incredibly interesting and again, rewarding. I also love that you get multiple options for every exam question, it eliminates that kind of bad luck you sometimes get on exams where you just happen to get a particular question you find difficult to understand, and gives you an opportunity to show what you know instead of what you don't.
the best TA and best teacher and chance to
Extremely relevant and challenging
The four project are excellent in helping one understand the concepts being taught in a practical way. It is very nice that the tasks are related to something practical and not just a task list. It is good to get to think about how to translate a "real life" situation into a problem one can solve.
The problems in the assignments felt "real", teacher and teaching assistants felt very knowledgeable, guest lecture was super-interesting.
Great assignments.
Structured lectures. The help sessions were a life-saver.
Assignment about the stochastic local search
Interesting problems and theories. I especially enjoyed the guest lecture, however I wish there were more! Assignments were very satisfying when completed.
De många hjälplabbarna

6: This could be improved in the course: (Make your suggestions as constructive as possible)

Answers: 13

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I didn't like the SMT-lib problem, it felt out of place compared to the other ones. If the difficulty of it can be increased a notch without making it too time consuming I believe that would be great for the course.

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Local search assignment was a bit too time-consuming.

Me and my partner spent a lot more time on the assignments then the planned 30h but that might be just us. I also felt that the Oral presentation did not help in studying for the exam. Maybe each pair could present an actual exam question from some earlier exam instead of that is to hard to talk about in 10 min.

The presentations… By God, we fervently rubbed our temples trying to reach seismic levels of academic masturbation. Listening to the presentations did not give me anything. The lectures were good overall, but... I'm not some sponge just sitting there absorbing knowledge. I have thoughts, aspirations and perspirations too. That is why I felt like I learned the most from the assignments. So maybe swap some lectures for another assignment? Get started on the assignments earlier? Scratch the exam part entirely? The exam preparation felt so tedious... Well, hello recession - just in time graduation… See you at the Thunderdome 2021 or at the re-exam.

Since the questions to the exam are given on beforehand, and we're all just looking up how to solve them on the internet and trying to memorize the solutions for the exam, having a home-exam would be more fitting, since then people might put more time on understanding the solutions rather than memorizing them.

Home assignments + presentation did not feel like 2hp vs the 3hp exam in terms of time spent studying. Maybe weigh it differently?

Force the oral presentations to be on topics relevant to the exam. Basically none of the were, and all except the 3-color reduction were too difficult to understand and learn in only 10 minutes, which made the presentations feel unnecessary.

Sitting in on the presentations was in no way helpful for the exam, and should not count as such. If so, force people to pick more relevant (and easier!!) topics. I feel like the exam influences the final grade too much, especially given the way that the exam is structured. For me, the assignments are the core of this course and this should be reflected in the grade calculation.

I was spending a lot of more time to solve the problems than anyone should do for a 5 credit course, and I know I wasn't the only one. The lectures that were supposed to teach us everything we needed to know to solve the problems were not informative enough. There would've been better if there were more lectures covering these kind of problems. There were links provided to some literature but not everyone can afford to buy that, especially if you don't know if you will ever use it for anything else.

Part d question in the second assignment can be explained much more clearly.

A problem for me during the course was that I had a very poor understanding of local search in general when beginning to do the SLS part of the first assignment. It took me quite some time to understand how to model the problem and how to traverse the search space, and I was not able to complete a solution that was to any satisfaction. I did log my hours spent and I spent 25 hours on just the SLS part. I also feel like it would be prudent to supply students with some reference material to nudge them in the right direction. Even a brute-force algorithm that will find the answer after searching the compete search space would be enough heuristic to get past the problem deconstruction phase. Perhaps that is the intended process, in which case I would recommend preparing tips for different stages of the problems (like, how do we represent the neighborhood? What is a good Tabu size?, etc), where each group may use lets say 1 tip without penalty, 2 tips with 1 point penalty, etc. (I have little experience deciding that kind of stuff but I would much rather take a 1 point deficit than finish the assignment with 1 point) The SMT assignment I felt was not tested enough. Constructing proofs by hand is interesting but not very practical. It would be better to have us write parsers following a strict interface to submit, which you could test on bigger programs, and

verify. Another suggestion because of it's contemporarity is to do blockchain verification with SAT: An interesting read can be found here: https://jheusser.github.io/2013/02/03/satcoin.html Perhaps if the constraints were relaxed and instead there could be a requirement that should be able to verify block sequence A,B,C in < 5 minutes, providing some test data. This might be better suited for SMT as it would be possible to use the assertion to find a true hash (as any hash with leading 0's is valid), in contrast to the program verification where we are trying to find UNSAT, but I do see the point in showing that as well. This might be unfeasible, but hopefully it might at least inspire some other fun idea for an assignment.

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