Antal respondenter: 41
Antal svar: 16
Svarsfrekvens: 39,02 %
## ESTIMATED WORKLOAD

### On average, how many hours/week did you work with the course (including scheduled hours)?

<table>
<thead>
<tr>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 41 timmar/vecka</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>39-41 timmar/vecka</td>
<td>1 (6.3%)</td>
</tr>
<tr>
<td>36-38 timmar/vecka</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>33-35 timmar/vecka</td>
<td>1 (6.2%)</td>
</tr>
<tr>
<td>30-32 timmar/vecka</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>27-29 timmar/vecka</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>24-26 timmar/vecka</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>21-23 timmar/vecka</td>
<td>1 (6.3%)</td>
</tr>
<tr>
<td>18-20 timmar/vecka</td>
<td>3 (18.8%)</td>
</tr>
<tr>
<td>15-17 timmar/vecka</td>
<td>1 (6.2%)</td>
</tr>
<tr>
<td>12-14 timmar/vecka</td>
<td>2 (12.5%)</td>
</tr>
<tr>
<td>9-11 timmar/vecka</td>
<td>2 (12.5%)</td>
</tr>
<tr>
<td>6-8 timmar/vecka</td>
<td>3 (18.8%)</td>
</tr>
<tr>
<td>3-5 timmar/vecka</td>
<td>2 (12.5%)</td>
</tr>
<tr>
<td>0-2 timmar/vecka</td>
<td>0 (0.0%)</td>
</tr>
</tbody>
</table>

### Comments

- **Comments (I worked: 6-8 timmar/vecka)**
  - The course had a moderate difficulty.

- **Comments (I worked: 15-17 timmar/vecka)**
  - Course was nice, but LLVM labs must be added to cope up with latest trends. Chalmers, and LTH both have LLVM in their courses.

- **Comments (I worked: 18-20 timmar/vecka)**
  - I wouldn’t say the workload for this course is too much. But I think it is very important to review the lecture slides both before and after the lecture. This helped me retain the information much better so I didn’t have to spend much time studying for the exam.

- **Comments (I worked: 21-23 timmar/vecka)**
  - It was good and fair.

- **Comments (I worked: 33-35 timmar/vecka)**
  - It took some time to understand the algorithms and find examples online. It would be great to have some more examples to look at and to solve to get a faster understanding of it.
The polar diagrams below show the average response to the LEQ statements for different groups of respondents (only valid responses are included). The scale that is used in the diagrams is defined by:

1 = No, I strongly disagree with the statement
4 = I am neutral to the statement
7 = Yes, I strongly agree with the statement

Note! A group has to include at least 3 respondents in order to appear in a diagram.
Average response to LEQ statements - all respondents
KTH Learning Experience Questionnaire v3.1.4

Meaningfulness - emotional level

Stimulating tasks
1. I worked with interesting issues (a)

Exploration and own experience
2. I explored parts of the subject on my own (a)
3. I was able to learn by trying out my own ideas (b)

Challenge
4. The course was challenging in a stimulating way (c)

Belonging
5. I felt togetherness with others on the course (d)
6. The atmosphere on the course was open and inclusive (d)

Comprehensibility - cognitive level

Clear goals and organization
7. The intended learning outcomes helped me to understand what I was expected to achieve (e)
8. The course was organized in a way that supported my learning (e)

Understanding of subject matter
9. I understood what the teachers were talking about (f)
10. I was able to learn from concrete examples that I could relate to (g)
11. Understanding of key concepts had high priority (h)
Constructive alignment

12. The course activities helped me to achieve the intended learning outcomes efficiently (i)
13. I understood what I was expected to learn in order to obtain a certain grade (i)

Feedback and security

14. I received regular feedback that helped me to see my progress (j)
15. I could practice and receive feedback without being graded (j)
16. The assessment on the course was fair and honest (k)

Manageability - instrumental level

Sufficient background knowledge

17. My background knowledge was sufficient to follow the course (f)

Time to reflect

18. I regularly spent time to reflect on what I learned (l)

Variation and participation

19. The course activities enabled me to learn in different ways (m)
20. I had opportunities to influence the course activities (m)

Collaboration

21. I was able to learn by collaborating and discussing with others (n)

Support

22. I was able to get support if I needed it (c)
Learning factors from the literature that LEQ intends to examine

We tend to learn most effectively (in ways that make a sustained, substantial, and positive influence on the way we think, reflect, act or feel) when:

a) We are trying to answer questions, solve problems or acquire skills that we find interesting, exciting or important

b) We are able to speculate, test ideas (intellectually or practically) and learn from experience, even before we know much about the subject

c) We are able to do so in a challenging and at the same time supportive environment

d) We feel that we are part of a community and believe that other people have confidence in our ability to learn

e) We understand the meaning of the intended learning outcomes, how the environment is organized, and what is expected of us

f) We have adequate prior knowledge to deal with the current learning situation

g) We are able to learn inductively by moving from concrete examples and experiences to general principles, rather than the reverse

h) We are challenged to develop a true understanding of key concepts and gradually create a coherent whole from the content

i) We believe that the work we are expected to do will help us to achieve the intended learning outcomes

j) We are able to try, fail, and receive feedback before, and separate from, each summative assessment of our efforts

k) We believe that our work will be considered in an honest and fair way

l) We have sufficient time for learning and devote the time needed to do so
m) We believe that we have control over our own learning, and not that we are being manipulated

n) We are able to collaborate with other learners struggling with the same problems

**Literature**


Average response to LEQ statements - per gender

Comments

Comments (I am: Man)

No comment.
Comments (I am: Internationell masterstudent)

I had no difficulty about this fact.
Comments

Comments (My response was: Ja)

- It was great with the recording because if there was an area you had difficulty with and did not understand the book, you could just repeat the lecture and then it was much easier to read the chapters.

- The book was good, but it uses a formal language that was difficult to understand sometimes.

- The material from the teacher was good and easy to read.

- It was good with the link to the online course, that sometimes explained things much deeper and was an excellent help do understand the course and to read the book. It can be difficult for me to understand what the chapters are the first time you read it.

- This course is one of the best gives by KTH Kista from the perspective of dyslexia, and they are not many.

- It would be great if the teacher informed that some part of the exam you have to write to answer the question. I discover it too late and did not have the time to ask a computer by tentaservice, it would be great for the student and the teacher will have it easier to understand the answer.

As a student, you sometimes afraid of looking at the exam at the beginning of the course.
### GENERAL QUESTIONS

**What was the best aspect of the course?**

| What was the best aspect of the course? (I worked: 3-5 timmar/vecka) | It was clear what was expected |
| What was the best aspect of the course? (I worked: 6-8 timmar/vecka) | The fact that we had guests, ex students of the instructor, who explained some part of the course and who work in the industry. |
| Good lectures |
| What was the best aspect of the course? (I worked: 9-11 timmar/vecka) | The assignments and tutorials. |
| What was the best aspect of the course? (I worked: 12-14 timmar/vecka) | The best aspect was to cover the compiler functionment from front end to back end. |
| What was the best aspect of the course? (I worked: 15-17 timmar/vecka) | The lectures where very good and informative. Christian had a really nice structure on the lectures. Also, the guest lectures where really good. |
| What was the best aspect of the course? (I worked: 18-20 timmar/vecka) | Comprehensive nature of contents. It started from scratch and covered a lot of diverse materials. |
| What was the best aspect of the course? (I worked: 21-23 timmar/vecka) | The professor is really good and makes every lecture very engaging. He also uses a lot of real world examples of how different compiler approaches are used in practice |
| Christian's lectures were always interesting, as he is a great teacher. When he introduced a new concept he did so little by little, starting with something basic and added complexity when we were equipped for it. |
| The classes were interactive |
| What was the best aspect of the course? (I worked: 33-35 timmar/vecka) | The teacher of the course and his behavior with students in a friendly and helpfully manner was one of the best. I like to take the course with him. He respects his students with hearing and understanding them. |
| - The best of the course was it was well planned, the lectures were good and informative and the slides were excellent with good examples and a clear red line in them. |
| - It was good the lectures were recorded so you can listen to the lecture again if there something you didn't understand or had a bad day. |
| - the link to the online course |
| What was the best aspect of the course? (I worked: 39-41 timmar/vecka) | The professor |
What would you suggest to improve?

<table>
<thead>
<tr>
<th>What would you suggest to improve?</th>
<th>(I worked: 3-5 timmar/vecka)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perhaps add a practical element</td>
<td></td>
</tr>
</tbody>
</table>

What would you suggest to improve? (I worked: 6-8 timmar/vecka)

1) I would prefer to learn more about back-end, object files, linking, and the execution of the executable with real exercises rather than every detail about different kind of parser.
2) The book (tiger book) that we used for the course lacked good explanations and enough detail. It had just a little more detail than the lecture slides and it was insufficient for me to understand what I could not understand in the lectures. I would prefer to use this book as a reference book after I learned everything in it but not to learn the materials for the first time.

Give earlier feedback to the assignment submissions

What would you suggest to improve? (I worked: 9-11 timmar/vecka)

How to write a simple compiler on ones own

What would you suggest to improve? (I worked: 12-14 timmar/vecka)

It would be nice to have more practical assignments, i.e programming. The two non-mandatory labs where good, but I would have liked to have some more labs or a project.

What would you suggest to improve? (I worked: 15-17 timmar/vecka)

Add more backend related stuff (Code optimization, pointer analysis)
Add LLVM labs

What would you suggest to improve? (I worked: 18-20 timmar/vecka)

More exercises

What would you suggest to improve? (I worked: 21-23 timmar/vecka)

If the number of exam samples and exercises increase and the exam samples would be from recent years, it will be better. However, the using procedure is convincing.

What would you suggest to improve? (I worked: 33-35 timmar/vecka)

- It would be great if the recording was done with the powerpoint because it was difficult to find the part of the lecture you didn't understand. There is a function in powerpoint that lets you record voice to the pp, so you can listen to the part you had problems with and not the entire lecture.

What would you suggest to improve? (I worked: 39-41 timmar/vecka)

Nothing
What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 6-8 timmar/vecka)
To understand the material not so long after the each lecture. By studying regularly.
Don't do the quizzes before the exercise sessions.

What advice would you like to give to future participants? (I worked: 9-11 timmar/vecka)
Learn more think deeply
Do not fear to answer "no I don't know what you're talking about" when the teacher asks "Does everyone knows "insert subject""

What advice would you like to give to future participants? (I worked: 12-14 timmar/vecka)
Take your time and learn the basics concepts before going further

What advice would you like to give to future participants? (I worked: 15-17 timmar/vecka)
Learn more think deeply
Do not fear to answer "no I don't know what you're talking about" when the teacher asks "Does everyone knows "insert subject"
Take your time and learn the basics concepts before going further
Work hard.
Prof. Schulte is really capable teacher.

What advice would you like to give to future participants? (I worked: 18-20 timmar/vecka)
Learn more think deeply
Don't miss out on the lectures.
Start preparations early

What advice would you like to give to future participants? (I worked: 33-35 timmar/vecka)
don't come after, it will be difficult to keep up.

What advice would you like to give to future participants? (I worked: 39-41 timmar/vecka)
Just enjoy

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 6-8 timmar/vecka)
No.

Is there anything else you would like to add? (I worked: 9-11 timmar/vecka)
No.

Is there anything else you would like to add? (I worked: 15-17 timmar/vecka)
Again LLVM labs should be added.

Is there anything else you would like to add? (I worked: 18-20 timmar/vecka)
No.

Is there anything else you would like to add? (I worked: 33-35 timmar/vecka)
- It was a good feeling in the lecture and you can ask questions without being stupid.

Is there anything else you would like to add? (I worked: 39-41 timmar/vecka)

SPECIFIC QUESTIONS
How useful were the quizzes in Canvas before the tutorials?

<table>
<thead>
<tr>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not so useful. The tutorial exercises and asking directly to the instructor when we did not understand something were much more.</td>
</tr>
<tr>
<td>Really helpful, you could see what was your level before the Tutorial class.</td>
</tr>
<tr>
<td>I found the quizzes very useful to introduce the topics and know what the tutorial was going to be about.</td>
</tr>
<tr>
<td>It was good, but it was sometimes a little bit difficult to understand the question because the area was so new for you.</td>
</tr>
<tr>
<td>Super useful to be prepared before the tutorial.</td>
</tr>
<tr>
<td>Useful.</td>
</tr>
<tr>
<td>It was helpful to know what would appear on the exercise so that you could come prepared.</td>
</tr>
<tr>
<td>Very useful.</td>
</tr>
<tr>
<td>Both the Professor Schulte and Lars (TA) did an amazing job managing the course.</td>
</tr>
<tr>
<td>Very useful.</td>
</tr>
<tr>
<td>Very useful! I would actually appreciate having more of them.</td>
</tr>
<tr>
<td>Those were good enough for preparing but the numbers can be increased.</td>
</tr>
</tbody>
</table>
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-3 = No, I strongly disagree with the statement
0 = I am neutral to the statement
+3 = Yes, I strongly agree with the statement
X = I decline to take a position on the statement

1. I worked with interesting issues

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>0 (0.0 %)</td>
<td></td>
</tr>
<tr>
<td>-2</td>
<td>0 (0.0 %)</td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td>0 (0.0 %)</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1 (8.3 %)</td>
<td></td>
</tr>
<tr>
<td>+1</td>
<td>0 (0.0 %)</td>
<td></td>
</tr>
<tr>
<td>+2</td>
<td>8 (56.3 %)</td>
<td></td>
</tr>
<tr>
<td>+3</td>
<td>8 (56.3 %)</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>0 (0.0 %)</td>
<td></td>
</tr>
</tbody>
</table>

Comments
4. The course was challenging in a stimulating way

Comments
15. I was able to practice and receive feedback without being graded

Comments
16. The assessment on the course was fair and honest

-3: 0 (0.0%)
-2: 0 (0.0%)
-1: 0 (0.0%)
0: 0 (0.0%)
1: 1 (6.7%)
2: 4 (26.7%)
3: 10 (66.7%)
X: 0 (0.0%)

Comments
21. I was able to learn by collaborating and discussing with others

Number of responses

Response

0 (0.0 %)  0 (0.0 %)  0 (0.0 %)  0 (0.0 %)  1 (0.3 %)  7 (43.8 %)  8 (60.0 %)  0 (0.0 %)

Comments
22. I was able to get support if I needed it

Comments