



Fakulteten för hälsa, natur- och teknikvetenskap

Kursanalys

Kursanalysen ska genomföras inom 3 veckor efter avslutad kurs. Lämnas till prefekt eller den som prefekt delegerar till.

OBS! För kurser inom lärarutbildningen och lärarlyftet används speciellt framtagna enkäter. Administreras av lärarutbildningen kansli.

Datum 150209			
Kurs Datastrukturer och algoritmer (HT2014)		Hp 7,5	Kurskod DVGB03
Programkurs	Termin i program	Kursdatum/läsperiod <i>HT2014 / LP 5</i>	
<ul style="list-style-type: none">○ Study Programme in IT Design: Software Design (Year of study: 2)○ Engineering: Computer Engineering (Year of study: 3)○ Engineering: Industrial Engineering and Management-Computer Engineering (Year of study: 3)○ Engineering: Industrial Engineering and Management (Year of study: 3)○ Computer Science (Year of study: 2)○ Geographic Information Systems Engineering (Year of study: 3)○ Engineering: Surveying Technology and Geographical IT (Year of study: 3)	3 / 5 / 5 / 5 / 3 / 5 / 5 resp.		
Fristående kurs...X ...			
Uppdragsutbildning.....	Sätt kryss!		
Antal registrerade på kurs 58	Antal besvarade kursvärderingsenkäter/deltagande vid muntlig kursutvärdering 8		
Hst 7,25	Hpr (efter 1 tentatillfälle) 2,45	Genomströmning (%) 34%	Har kursens mål examinerats? Ja

Förändringar till detta kurstillfälle

- **Förändringar som planerats och genomförts sedan föregående kurstillfälles kursanalys**
- Kursens innehåll hade skrivits om och reviderats sedan HT2013.
- Antalet föreläsningar reducerades från 20 till 16 gånger 2 timmar enligt avdelnings riktlinjer för kurser.
- Antalet labbuppgifter reducerades från 4 till 3 efter kommentarer från studenterna under HT2013.
- Ett fungerade exempel av hur labbarna skulle organiseras presenterades i början av kursen med datastrukturen sekvens som exempel. Denna kod kunde anpassas till labbuppgift #3 (grafer).
- Av kursens 60p gav tentan 40p och labbarna 20p.
- Studenten måste godkännas på både labbarna (åtminstone 10p/20p) och tentan (åtminstone 20p/40p)

Detta kurstillfälle, uppföljning

Studenternas synpunkter och sammanfattning av resultatet från kursvärdering (enkät samt ev muntlig):

Number of respondents: 8

1. Multiple choice question

Percentage

How do you perceive the quality of the course as a whole?

Very low	0%
Low	25%
Acceptable	25%
High	37.5%
Very high	12.5%

2. Multiple choice question

Percentage

How do you perceive your own workload during the course?

Very low	0%
Low	0%
Acceptable	25%
High	37.5%
Very high	37.5%

3. Open question

What was, according to you, the best aspects of the course?

- The laborations which gives despite its difficulty very good knowledge.
- + The difficulty of the laborations. A lot to learn.
+ Very good lab teachers.
- Jag gillade labbarna - väldigt nyttigt att lära sig hur de grundläggande datastrukturerna (och deras respektive algoritmer) implementeras i c.
Jag hade dock gärna sett åtminstone en labb där vi faktiskt fick lösa ett problem med hjälp med av datastrukturerna vi lärt oss (graf, träd, etc).
Jag tror det hade varit nyttigt att få applicera kunskapen praktiskt, på ett riktigt problem,

också.

- Laborations, where fun and challenging
- the labs
- Innehållet i kursen kändes väldigt relevant för allt vi har studerat och kommer att studera resterande del av utbildningen. Labbarna var svåra men mycket lärorika.
- The lectures.

4. Open question

What was, according to you, the worst aspects of the course?

- The design of the exam, which i am not familiar with.
- - The difficulty of the laborations. A lot of time on labs, not so much on studying for the exam.
 - Badly structured course. Example: We started to work with lab 1, and then all of a sudden Donald wanted us to take a day or two to work with lab 3, and then back to lab 1. We had no idea what to do with lab 3 so that was just a waste of time.
 - Worst home page since 1999! In addition to the C workshop, we should have an introduction in understanding Donald's home page. It is crucial that the home page is structured when we don't have any course litterature.
- Bristen på kurslitteratur. Det är visserligen en campuskurs, vilket innebär att man bör vara närvarande under föreläsningarna, men det är samtidigt väldigt nyttigt att kunna läsa motsvarande kapitel i kurslitteraturen, ifall man av någon anledning missar några föreläsningar. Kompendiet, slidesen och de övriga informationskällorna är toppen, men ibland är det svårt att ta till sig all information från slidesen utan kontexten som motsvarande föreläsning ger. I sådana lägen är en kursbok som i detalj förklarar koncepten ovärderlig.
- Too much time went to laborations, i didnt study enough for the exam
- the exam
- Mycket att ta in på kort tid. Kursens hemsida har rörig struktur, svårt att hitta den information som jag var ute efter. När jag väl hittade information så var den tvetydig. Exempelvis kunde det stå olika saker i lecture notes och i revision notes. Den skulle behöva ses över helt enkelt.
- The "holiday" break.
Writing text under a "short" time constraint.

5. Open question

Comments

- Tack för en väldigt intressant och givande kurs :)
- Kursen har väldigt hög arbetsbelastning men samtidigt vill jag påpeka att jag tycker att allt innehåll var relevant så kursen borde inte kortas ned. Snarare förlängas eller delas upp.

Den kursansvarige lärarens egna synpunkter och kommentarer på kursvärderingen:**(1) Comments on the Course Evaluation (8 students):**

- Since the response rate was rather low (8/58 students) it is difficult to draw any meaningful conclusions.
- Attendance at the lectures was around 50%. This means that a significant number of students are missing out on the information provided in the lectures. The course is NOT a distance course although a number of students seem to treat it as such.
- Without knowing which comments come from students who did attend the lectures and which come from those students who did not attend the lectures, it is difficult to answer critical comments in a constructive manner.
- The Labs – students are provided with 70%-80% of the code and have to “fill in the blanks” (labs 1 and 3) and implement the back-end functions. In some cases some of this back-end code is provided in the lecture notes. Lab 2 is an engineering exercise using Lab 1 as a model (front-end/back-end) and students’ previous knowledge of sorting and searching.
- The Exam – this is probably different from previous exams which the students have experience. However
 - I give a lecture on the exam structure and exam technique to inform the students
 - **The previous 5 years’ exams with facits are available on the web for the students to read**
 - Revision notes have been provided on the web including worked examples to the algorithms discussed in the course which also act as model answers to exam questions
 - Again with 50% of the students not attending the lectures, they may have missed this information!
 - After the problems with last year’s course (HT2013 where again around 50% of the students were not attending lectures nor labs), at the start of the DSA course I analysed the HT2014 students’ results from previous courses since the DSA course comes approximately half-way through the 3 year education
 - 6 students of 58 had passed all the courses in their program
 - 4 students of 56 had passed all the courses in their program where the program was Computer Science related
 - In particular, students are failing previous courses which involve computer science and programming and then have difficulties with the DSA labs.
- Course literature – this was replaced by a compendium and web information for 2 reasons (students were informed about this during the first lecture)
 - Most students did not buy the course book
 - I cannot find a good book for this course

A reference literature list was provided for students

(2) Comments on the lab results:

- Of 58 registered students 48 students handed in labs
- Of those 48 students the results were U - 10 (21%) grade 3 – 15 (31%) grade 4 – 14 (29%) grade 5 – 9 (19%). In summary 79% of the active students passed the labs and 21% failed.

(3) Comments on the exam results:

- Of 58 registered students 44 students took the exam (plus 8 students as a resit). Total 52 papers of which 2 were blank.
- Of the 8 students who took the exam as a resit, 3 passed (2 grade 3 and 1 grade 4)
- Of the 50 students who took the exam (excluding the blank papers), the results were U – 35 (70%), grade 3 – 7 (14%), grade 4 – 8 (16%), grade 5 – 0 (0%). In summary, 70% failed the exam and 30% passed. Of the HT2014 students 5 had grade 3 and 7 grade 4.
- The result is comparable with HT2013 and also previous exams.

(4) Comments on the course results:

- Of the 44 HT2014 students who took the exams, the course results were U – 32 (73%), grade 3 – 5 (11%), grade 4 – 4 (9%), grade 5 – 3 (7%). In summary 27% passed the course and 73% failed. Again this is comparable with previous instances of the course
- This result is also comparable with the results for the previous course DVGA03 for both HT2014 (largely the same students) and HT2013. Again, problems with attendance were similar for DVGB03.
- Reading the exam papers, it was clear that quite a number of students did not understand the course content. 32 of 50 (64%) could not give a correct definition of a binary tree!
- Given the number of students who passed the labs (79%), it is surprising that so few passed the exam.

(5) General Comments on the outcome of the course:

- Low attendance at the DSA lectures and labs may be a contributory factor to the negative outcome.
- Lack of communication and student feedback has also contributed to the course outcome.
- The “missing 50%” makes it difficult to know what these students actually did or how active these students were. Since very few students ask questions (a cultural problem?) and only 50% attended lectures, communication has been less than optimal.

Förslag till förändringar inför nästa kurstillfälle och förväntad effekt:

- The study plan has been revised to avoid the above mentioned problem of working on 2 labs at the same time

Intygar att student har beretts möjlighet att delta / har deltagit	Namnförtydligande
Kursansvarig lärare, underskrift	Namnförtydligande Donald F. Ross
Examinator har deltagit/taget del av, underskrift	Namnförtydligande Donald F. Ross