

Architecture and Operating Systems

Me

P1

Explain to me in your own words what you believe you are learning from module Architecture and Operating Systems

I thought that module was really useful actually. Essentially learning about the inner workings of a computer. It was pretty much learning how a computer worked from the ground up, including the hardware and the operating system at a basic level. It was really useful given a beginner working and understanding of how a computer works.

How do you think this module fits in within the Computer Science degree programme?

I think it's pretty much essential to it.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

10

Do you think there were any specific skills you were learning from the module?

The parts of the module about how 80x86 processors worked was pretty useful to everyone I think because it gave people a basic knowledge of assembly language and how a computer carries out instructions as its pretty fundamental to computers.

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

I think all of that was new to everyone

Would you change when the module was taught?

I would make it a longer module. Start it earlier and end it later. As the only problem I had with that module was that it covered a lot of areas but it was very vague, it didn't cover them in enough depth.

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

With algorithms in second year.

Do you think this was justified?

It was good. It was a continuation rather than repetition.

Now have a look at the list of Learning Outcomes for Architecture and Operating Systems I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

I think these are pretty much a reflection of what I thought the module was about

Do they all sound right for the module?

Yer, I think they are all relevant to the module

Do you understand all of them?

Yep I understand them all

Would you add anything to the list?

No, I think it covers it all.

Did you cover all the learning outcomes?

I think I achieved all of those easily.

Do you think all the learning outcomes are equally important or any that are more so?

I think they are all equally important. All are pretty much core aspects of computer science.

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

I think in this particular case, this module is quite rigid so its mostly knowledge and comprehension maybe a bit of application. But these are all sort of aspects of computer science that are set in stone so you can't really apply that knowledge to something new.

So you think it is good that it's more focusing on the knowledge at this point?

Yep

Having looked at these learning outcomes do you think these are all achievable?

I think, considering the fact that the first year does assume no knowledge I do think it might be difficult for some people. I do think they are achievable. I feel I achieved them but I brought with me some prior knowledge at least at a superficial level which I think helped out a fair bit.

Advanced Programming

Me

P2

P3

P4

Explain to me in your own words what you believe you are learning from module Advanced Programming

In general what we were taught was C, C++ and then we did some mobile programming for android and some objective c for iPhone. I learnt about just listing off some of the topics for C and C++ it was learning about memory management, we were given some sort of comparison between java and c at the start and then they went through crossing off the things that were irrelevant to each language and what sort of mapped onto were and that's what they started off doing, saying you've learnt java and this is how it relates to this one. And memory management and templates, that went on for half of the course and then the second half was the mobile stuff and that was android stuff and objective c. The android stuff was that you had a choice as to whether you wanted to use a GUI or click and drag and drop the different buttons onto the screen or if you wanted just go straight down to xml and edited that way or use a mixture. That

was the one assignment we did, so that was practically how we did the android stuff then the exam was just the C and C++ stuff.

I think it was probably intended that because we were studying C that was a much lower level language than we have done before I think the intention was that it gives us a better understanding of how the computer works because by doing a lot of c that tends to be what you get however because of time constraints we couldn't go into enough detail to get that much of an improved understanding of the computer; so though we learnt a lot about the languages we didn't, we weren't able to use that to understand the computer better.

That said they did run through an awful lot of stuff in the first 6 weeks very, very fast so much so that it put a lot of people off going to those lectures. I felt it was brilliant but I still didn't keep up with the speed he was going at in the first 4 weeks, an awful lot of code you didn't get even after the session.

It was a pretty relentless pace – it should have been a double module. As you can't cover mobile programming in one module because we already knew java and the majority of the mobile stuff was about android which is programmed in java so the only things she covered was some of the API stuff which isn't really what android was about but you can't do what android is about in 6 weeks. Same with the C/C++ stuff.

How do you think this module fits in within the Computer Science degree programme?

Oh very well its fundamental stuff, you need at least a basic understanding of C to do full on computer science and the mobile programming stuff is where programming is going so likewise you need at least a familiarity with it.

It was a bit surprising it was an optional module.

I think it should be a compulsory module but restructured.

Android programming especially

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

9/10

Yep

Agreed

Do you think there were any specific skills you were learning from the module?

It was very much on the content, there weren't particularly higher motives it was all learn this, this is important knowledge

It was the technical skills not really the transferable sort of stuff

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

The previous programming modules, the python and fundamentals java

Would you change when the module was taught?

I think maybe, I don't know, it should have been a core module and it should be something we learn but how I would put the ordering of the languages we were learning

I think that it's probably right

Yer, for me personally I think it worked fine for the ordering and for what else we were doing at the same time and there weren't any assignments, I don't know. Maybe it could have been run alongside the architecture and operating systems if we are learning more about the computer. But then that's cramming all of the languages into the first year.

I think its better in second year when you've got use to a bit of programming and you've eased into it.

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

Not particularly actually, simply because it was so focused on the content of that module there wasn't time to overlap

Now have a look at the list of Learning Outcomes for Advanced Programming I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

We didn't do any concurrent programming at all (stated in several learning outcomes)

We didn't do OpenCL/CUDA in number 1, we didn't do GNUStep in number 2

We didn't do coco

We did a bit, and we didn't do OpenCL/CUDA in number in 4

And 6 "understand concurrent programming techniques"

So yer we didn't do 6 at all and there are bits of 1, 2 and 4 that we didn't do. Again that's because of time constraints. It's because the OpenCL/CUDA is one topic and we didn't do that topic at all so it crosses a lot of stuff off.

They said at the beginning they couldn't fit it.

They couldn't have.

That would have been more relevant for parallel processing.

Yer

Do they all sound right for the module?

Yep

Yep

Yer, they are very good just over ambitious

Do you understand all of them?

If we had had more time we could have done more of 5

Would you add anything to the list?

They haven't mentioned android at all

Yer was just going to say, in learning outcome 2 the GUNStep should be replaced with the ADK android development kit

Over the 6 weeks they couldn't cover all of it and they don't mention android, which just reinforces the point that it should have been a longer module because then maybe this list would have been covered.

I get the impression that Dr Langbein who taught the C and C++ stuff that he didn't have much involvement in writing this [learning outcomes list] because it talks about OpenCL/CUDA but when we were talking to him about it in the labs we was saying there was no point in doing CUDA as OpenCL does CUDA. CUDA is specific to video chips, OpenCL is generic if you do OpenCL on a video chip to automatically rewrite it to CUDA so I don't think even if it had been extended to a full module and he taught it he would have done CUDA. So I get the impression that he didn't have much input on this. Which is why it is probably there as he would have said there is no way we have enough time to do that. I would imagine someone else designed the module and then gave it to Dr Langbein and Dr Walker.

Do you think all the learning outcomes are equally important or any that are more so?

I think 3 and 5 are very similar but they are what I would want to get out of the module the most and unfortunately that is what we didn't have time to get to

Yer I agree with that

3 and 5 are the on-going stuff rather than the specifics of C and C++ but we didn't have time to go into that

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

Again I'd say that what we did and by extension number 1, 2 and 5 were mainly knowledge and comprehension and a little application, and what we didn't have time to do and what would have been really interesting is 3 and 5 and 4 to a lesser extent which is more the analysis, synthesis and evaluation. 4 is evaluation.

Do you think it was good that it was focuses more on knowledge and comprehension?

I think as nice as it would have been to get more of the evaluation and synthesis stuff I think that would have been pretty difficult to teach that without the knowledge and comprehension stuff.

For a few people I was talking to on the same module, I don't think there was enough knowledge and comprehension in there, it again goes into the 6 weeks we had, I little longer to understand what was taught in those 6 weeks would have been very beneficial for a lot of us. I pretty certain so far that advanced programming was the most failed module over the course of the last 2 years and I'm not surprised.

Having looked at these learning outcomes do you think these are all achievable?

Not the ones we didn't cover. We didn't really cover 3 and 5 and we covered 4 incredibly briefly and 6 we didn't cover at all.

So that leaves 1 and 2. There appeared to be a bit of a standard line with regards to comprehension of this stuff; it gave the impression that it was throwing us in a little bit at the deep end because we hadn't covered a language like it before.

I think if you kind of got java from the first year, which is a different discussion, if you kind of got that and you went to all of the lectures, for this, and the labs, I think you would probably manage it

I think with the pace we were going with last year you would have put the work in to try and understand it and to be able to compare the concepts and how it maps to java because that's the most similar one we learnt so far and be able to say ok this is how java does it, this is how c does it and take the time to learn it yourself just because of the pace it was going.

It was a huge pace, second year compared to first year.

I mean the main problem is there is a big gap between the knowledge of knowing Java uses a garbage collector and C doesn't and then the difference between actually understanding how you go about doing the equivalent work yourself in C. That's the kind of two levels and a lot of people will have got the knowledge bit but not really understood how to use it. They can teach it but more time is needed. It needs to be a full module if not a double.

I know why this didn't work. We didn't have the assembly module. In previous years they had an entire module of assembly and that would have made a huge difference because then you can relate what you are writing in C to the assembler you would get out and that just wasn't there in our year and that would have made a massive difference.

Object Oriented Applications

Me

P2

P3

P4

Explain to me in your own words what you believe you are learning from module Object Oriented Applications

Mostly just structure for programming. If I was to name the one key thing that I came away with learning from that module it would be how to structure what I was writing correctly and in a manner that could be easily read by someone with less experience and a much more ordered way for me to deal with.

We were taught all the different not rules but the

Programs

Yer, well yer, when you say that the first thing that comes into head is black box and white box. But I was thinking more like things to stick to high cohesion low coupling, with when doing obviously object classes everything in a class should be one concept one idea. Low coupling so they don't know much about each other so to speak so you can change how it does something without it affecting the interface. It was a lot of learning especially at the start almost rope learning the different principles, rules to apply when you are doing programming. Then later it on it was a bit more UML diagrams class diagrams etc.

It was all about the object oriented paradigm and it covered it fairly succinctly, it was good in that sense.

Yep

Yep

The coursework itself was based around create a factory class which had the main bit say if this happens go to your factory class would do it. It was

Good fun

It was great fun. That was a good piece of coursework

How do you think this module fits in within the Computer Science degree programme?

Obviously it's a core aspect of the programme. With the object oriented stuff I don't know maybe should have been taught it closer to the Java module as the whole thing is in java

Yes, but also it improves your understanding of the thinking behind java

Yes

So you can understand java a bit more. Why do I have to write an entire class for "hello world", that's retarded; but when you a bit more aware of it, it makes more sense.

Object Oriented should have be alongside other modules, maybe alongside fundamentals of programming with or a full module for C/C++ would have be good

Yep

Yep

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

9

I say more around 4/5 because Object Orienting is a fairly common paradigm within programming but it's one of many there are loads of others you can use and, for example if you do C you won't do any object orientation.

But C++

Yer, but if you just use C, you won't do any. So I wouldn't say it's fundamental to the course to understanding computer science to understand how a computer works and all that sort of stuff. But it is a very useful knowledge so that is why I'd give it 5.

Maybe they should have done like, I've read about some other universities that do, that have courses that are devoted to teaching a couple of different paradigms so object oriented, or functional or something to compare.

I think a lot of the content we were covering over the course was applicable to object oriented and I think it should be included. That's why I gave it such a high mark. And on a computer science course you are never just going to learn C.

It should have definitely been alongside the sort of normal java programming. Because the java module was kind of like sort of like the advanced programming as in this is how you do something blah but then after a year later we were taught here is how to do it properly in a nice way.

And this is why it is the way it is and should have been taught how to tackle it sooner

Do you think there were any specific skills you were learning from the module?

Again it was more, well there were programme specific skills that weren't specific to java but not really team work or anything.

It was more just organisational skills with regard to programming. From the look of the module that would have been a key objective of it, it was just organisation of it.

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

No

No

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

No

Everything original down to the lecturer

Everything except for a tiny bit of UML because we'd already learnt that, but we were taught class diagrams again it was just one slide with just all the little notations on one side and how to, even though it's not a good thing to use read a specification and pull out the nouns and verbs even though that's not a good way to it.

Now have a look at the list of Learning Outcomes for Object Oriented Applications I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

I'm not 100% sure we did 4 particularly for concurrency

No, No

No

But apart from that we covered all of them very well

Do they all sound right for the module?

Yep

Yep

Yep, well actually the design patterns bit in 6 could probably do object oriented stuff without, but it's good I'm very glad that stuff is in there. It was really useful and probably something we wouldn't have covered otherwise.

Do you understand all of them?

What does it mean by "demonstrate knowledge of various techniques for use in building applications in java" I think it's a bit vague

It's a bit vague. I think that's in relation to the coursework

Of yer, techniques

So design patterns

But just reading and not knowing where you are going to get that learning outcome from is a bit

Would you add anything to the list?

No no that's good

It's a very good explanation of what we do

I suppose one thing that might have been a bit useful, that would have been really interesting as a different way to teach the module would have been doing a little bit of comparison so using OO techniques in two languages so that you can understand the technique and not just one specific implementation of it so for example we could have done it in Java and Python. I think that would have been quite nice. Adding another language would have been nice from an academic point of view but wouldn't have been necessary.

Do you think all the learning outcomes are equally important or any that are more so?

3 is very important, obviously but it kind of links to 1 sort of. 1 is like knowing principles 3 is about applying principles well it says apply principles.

I would say 2 we didn't really do quite enough of. I would say the majority of people who did the module wouldn't be able to describe the features that a language needs to have to support OO. But that is quite a challenging principles and it's not the most important aspect of the module either. So I wouldn't say that was a failing but that's a really challenging requirement.

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

2 is definitely evaluation – which is why it's challenging.

1 is comprehension

Yer

6 analysis

Sort of

Utilise more of understanding

Application maybe

Understanding and application

Yer, that vague area

Yer

So you think it is good that it's more focusing on the knowledge at this point?

Yes

Yep

Yep

Having looked at these learning outcomes do you think these are all achievable?

Yer

Yer I think it was a pretty good module

It was it would have been better earlier on

Yep

System Design and Group Project

Me

P5

Explain to me in your own words what you believe you are learning from System Design and Group Project

Team work, learning how to go through the different stages of the development, software development process. I feel like I'm getting a view into what it would be like after university, like working in a team within a company. When we did the developing quality software module last year I didn't feel like that, I just felt angry the whole time. But because I've got a quite good group, well there are one or two that are the exception but you are always going to get that in a group; whereas last year, first year, nobody was really that bothered about it and it was so hard and thinking to yourself this isn't giving me an idea of what it's like to work in a job because if this was happening in a job you would be fired. Whereas this year everyone is doing work but trying to get away with doing less and stuff. And its also people have more experience and it feels like I am actually learning and learning quite a lot from people in my group. As I'm studying BIS and I didn't know quite a lot of the stuff about programming and the front end or back end stuff and it's good to be learning from other people.

How do you think this module fits in within the Computer Science degree programme?

I think it is quite important. Obviously for a lot of people this is what they are going to do when they finish, learn to development. Developing software and different systems, creating stuff for different companies I think this is quite useful as it is applying what you learnt from other modules. Giving people a chance to use that this year. Giving those people who are really into programming a chance to go through and analyse the different ways and different languages and what would be the best option for this kind of project.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

9

Do you think there were any specific skills you were learning from the module?

Time management, following a schedule, working with people you wouldn't normally choose, learning to get on with people who having different personalities being more sensitive to people. Team work.

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

Developing quality software one last year. We had a terrible group so learning from that and reading the signs as to when people are going to stop working and now you can be like you do this. Fundamentals of computing with java, the programming knowledge gained from that.

Would you change when the module was taught?

No I think this is a good year because it would be too much for first year and people wouldn't take it seriously but it's good to get this knowledge this year rather than leave it till third year.

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

There is a bit of overlap with HCI because in our presentation to the client last week we started talking about our user interface and we're going to have to do that sort of analysing, criticise our user interface and do user testing and stuff.

Do you think this overlap is justified?

I think it compliments each other and that isn't the purpose of this group project exercise it's about the whole thing. Whereas HCI gives you an understanding of it before you have it use it.

Now have a look at the list of Learning Outcomes for System Design and Group Project I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

There are things that I didn't automatically think of whenever we were asked what we were learning, but yer we have done these. I think cause of group as well we've paid close attention to each of the learning outcomes. We've gone through at each stage of the project to ensure we've including everything. So I feel we have covered all of these, or we've been taught them I remember doing stuff and learning stuff about them.

Do you understand all of them?

No, these here more things you tick off at the end. Once you understand the concepts of software development like it says here agile and waterfall, once you've done that you can tick it off and say you learnt it.

Anything you would get rid of?

No I think they are all, no I think that they are like quite separate but are relevant.

Would you add anything to the list?

No

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

No, but for some of them it makes it seem like all you have to do is understand them but in reality you understand them, analyse them, then choose one to implement. So it's you learn them, understand them, analyse and then implement one.

Do you think it would be worth them stating that it's understand and apply etc.?

Yer or maybe like for number 1 you said "understand common approaches to software development from whatever" and then down below an indented one say you know, "choose a method to follow" or like "analyse these and decide on the best method for your group" you know just a bit of detail. Like a subgroup really.

Do you think it right that it covers all stages?

Yer no I think it is good, this module I think is meant to help your team work but almost meant to give you an idea of what it would be like in the industry after you finish, obviously in the industry you're not just going to learn or regurgitate stuff or you're not just going to evaluate stuff you are going to be doing all six of these so it's good that you are being forced to do that now so it won't be as much of a shock and you know where to start when you go out and get a job.

Having looked at these learning outcomes do you think these are all achievable?

Well, no I think that if they contribute to their group then they should be able to understand. Well yer they should be able to achieve these.

HCI

Me

P5

Explain to me in your own words what you believe you are learning from HCI

How to design a good user interface, we learnt about heuristic evaluations, different types of heuristic evaluation, how important the computer-human interaction is you know the interaction between the two of them and the ways you can make it easier for the human to communicate with the computer and whatever piece of software you are using.

How do you think this module fits in within the Computer Science degree programme?

I think that HCI is important to an extent but I think it should be incorporated into another module; it shouldn't be a whole module. A lot of what is taught is common sense. I think is important but not important enough to have its own module.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

Well it is relevant it is important, obviously a good user interface in human-computer interaction is important especially for someone doing computer science but I wouldn't say; it is relevant so I would say a 7 but a whole module isn't needed.

Do you think there were any specific skills you were learning from the module?

I have learnt about testing, like heuristic evaluation that helped me quite a bit- having to analyse and criticise my own flaws.

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

Probably the Developing Quality Software one as we had to do testing at the end, but nothing that has helped massively. Obviously we've done aspects of user interface and creating a good user interface in other modules but nothing to this extent.

Would you change when the module was taught?

I would merge it in with developing quality software

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

No, a lot of it is common sense but there was nothing that I had previously learnt of been examined on

Now have a look at the list of Learning Outcomes for HCI I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

I suppose some of them we have learnt, definitely feel we've learnt 1, 2 and 5. Number 6 we didn't really learn anything about the standards – looked it up ourselves. A lot of these are kind of vague; they don't give us like definite things of stuff we are supposed to have learnt, they don't say "you will know how to this, you will know how to do that" its all "demonstrate a knowledge". It could also be something the lecture can tick off and say I've taught that. Can be something we check before an exam to make sure we've covered everything.

Do you understand all of them?

Number 4 don't really understand what that means

Anything you would get rid of?

They all seem like they are appropriate, though number 4 I still don't get

Would you add anything to the list?

No, I don't think we've been taught that much so everything listed more or less has been covered it just could have been covered in two or three lectures.

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

I think the “recognise and identify the importance of identifying and using users” that is just knowledge, I think the first one that is probably hitting a few of them because it’s getting you to not only just remember why you should involve the users but also identify why so thinking and analysing. The “select and apply suitable user methodologies” that’s obviously knowledge as you have to remember a few of the methodologies, but its hitting a few like application as well as you have to choose a suitable one. I know whenever we were doing our coursework we had to choose between a few different ones, and choose the most suitable one, so it was getting you to think about it as well, so that’s comprehension because you had understand the different ones and what they do before you make your choice. Well I don’t think we covered number 6.

Do you think it right that it covers all stages?

I think for something like HCI it is probably good, because a lot of it is practical as you have to test and look at your system and it’s not like you can just learn a list of things and it’s going to be the same for every single system or every single piece of software you evaluate. It’s good you are covering more than one as you need knowledge of what makes a good user interface and the different types of evaluation you can do but in really life you are going to need to evaluate you are going to need to apply.

Having looked at these learning outcomes do you think these are all achievable?

No probably not for this module.

Informatics

Me

P6

Explain to me in your own words what you believe you are learning from Informatics

I’m not entirely sure to be completely honest. The only reason that I even bothered picking that module was because it was bundled together with advanced programming. So it was taken as a kind of collateral. I really didn’t think it was relevant to my interests as a computer scientist at all. To be perfectly honest I’m not sure what I was meant to be learning.

How do you think this module fits in within the Computer Science degree programme?

I don’t think it does.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

Around a 3, I don’t think it is completely irrelevant but I really don’t think it fits in that well with the degree programme especially with all the other program oriented modules; it doesn’t seem to have a place within the computer science degree.

Do you think there were any specific skills you were learning from the module?

I think it was more of theoretical thing. It was quite useful to find out about things like data mining but besides that it wasn’t really teach me any new skills.

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

No

Would you change when the module was taught?

I probably put it in first year just because first year is the period is the time people are trying degrees out so maybe swap to information systems. But ideally for me I would just remove it from the options for computer scientists and replace it with something else because I think it is irrelevant to a computer science student, or largely irrelevant to a computer science student.

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

No

Now have a look at the list of Learning Outcomes for Informatics I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

That does make sense. The module does live up to those learning outcomes I think. Seeing as it is largely centred around data mining in organisations. I think they are sensible, realistic learning outcomes.

Do you understand all of them?

Yep all pretty clear.

Would you add anything to the list?

No, I was very interested in it.

Any of them that seem more important?

I think it is all centred around that first one so developing an understanding of how information is captured, shared and exploited is organisation. It is pretty much centred around that learning outcome.

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

I think they cover more than one or two of those. Simply because it requires you to apply your knowledge to other applications. So yep I think it covers all of it.

Do you think it right that it covers all stages?

I think that it is better that it requires you to think of your own applications for the kind of procedures they teach you to go through. So yep.

Having looked at these learning outcomes do you think these are all achievable?

Yep definitely. They are definitely achievable I just don't think the course is particularly simulating for a computer science student.

Algorithms and Data Structures

Me

P7

Explain to me in your own words what you believe you are learning from Algorithms and Data Structures

Physically and conceptually how different types of information is stored on a computer and manipulated. Algorithms as well, how some algorithms can be more efficient than others and how to avoid the really bad ones as well.

How do you think this module fits in within the Computer Science degree programme?

Yer it is pretty central I think, certainly to the CS side of things because it is going to be applicable to any programming language and problems especially as I can see how this one relates to real life examples as well because when we are talking about when we are talking about complexities of programmes and algorithms it talks about millions and millions and millions of items which isn't something you would encounter in a toy project it would be a sort of real world thing. It's got more relevance, I think.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

9, yep

Do you think there were any specific skills you were learning from the module?

Yer programming is coming into play again. To some extent its mathematics, analysis, mathematical analysis.

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

No not really

Would you change when the module was taught?

No I'd keep it in second year.

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

The mathematical side of the computing with java it certainly overlaps with that, it extends that. And with the exception of HCI it probably, gives you skills that helps with all the other modules like that analysis is useful almost everywhere with the exception of HCI

Now have a look at the list of Learning Outcomes for Algorithms and Data Structures I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

(Recording cut out at this point – rest of comments are taken from notes I made during the session)

The learning outcomes are really clear

Do you understand all of them?

Yes

Would you add anything to the list?

Practical, real world uses

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

All the stages seem to be covered. Its laying the foundations and then building upon them

Having looked at these learning outcomes do you think these are all achievable?

Yer, its building on last year so that acts as a support and you are starting from basics so should be able to achieve them all.

Mobile Communications and Meta Heuristics

Me

P8

(Fault with the recording – interview based on notes taken)

Explain to me in your own words what you believe you are learning from Mobile Communications and Meta Heuristics

Wireless technologies, mobile phone networks, learning about interference and how you achieve optimal speeds vs. costs. About metaheuristics nad the algorithms used to find wireless routers etc.

How do you think this module fits in within the Computer Science degree programme?

The Metaheuristics part and algorithms was very suited to computer science and what I expected to be studying. The mobile communications crossed over into engineering which is fine so long as it is explained from basics.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

8

Do you think there were any specific skills you were learning from the module?

No

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

In signal processing we studied matlab which taught us about interface and signals but didn't need any of this to do the module. Also communication networks and pervasive computing.

Would you change when the module was taught?

It could be taught in either second or third year I think people would be able to grasp it in either.

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

It overlapped somewhat with the pervasive content

Do you think this overlap is justified?

Was a bit repetitive

Now have a look at the list of Learning Outcomes for Mobile Communications and Meta Heuristics I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

A lot more meta heuristics mentioned in the learning outcomes and less about the wireless technology which isn't how it felt it was being taught. It was a lot more content on the wireless side and less meta heuristics.

Do you understand all of them?

They seem a bit vague and a lot less measurable

Anything you would get rid of?

No they all do get covered as far as I can tell

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

Its seems to be mostly centred around knowledge and comprehension except for the meta heuristics part which was application

Do you think it right that it covers all stages?

I think its right that it is more about the knowledge and comprehension as we aren't engineers

Having looked at these learning outcomes do you think these are all achievable?

Yep I think they are all achievable

Parallel Processing

Me

P8

Explain to me in your own words what you believe you are learning from Parallel Processing

Learning about super computers. About the difficult of running lots of processes, of thousands of processes, the passing messages between different processes, 2 processes. We did some maths around that.

How do you think this module fits in within the Computer Science degree programme?

(Technical fault occurred with recording at this point – rest of interview taken from notes)

I think the module was a lot more theoretical than previous year's modules which was good; first year was all about the practical side and now we learn all the theory. It is good though as it expands your knowledge, it doesn't just focus on one domain. It wouldn't be something I would learn about on my own.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

10

Do you think there were any specific skills you were learning from the module?

Not any skills as it was really more about knowledge

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

Operating Systems as we learnt about race conditions and Java Applications we learnt about multi-threading

Would you change when the module was taught?

No

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

Some overlap with operating systems

Do you think this overlap is justified?

I think it is good as a refresher so long as it is only a refresher

Now have a look at the list of Learning Outcomes for Parallel Processing I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

Haven't finished the module yet but they all do ring bells

Do you think they all sound right for the module?

More or less. Would have expected more of number 6. Thought there would have been more programming its parallel processing not parallel processes

Do you understand all of them?

Not all of them yet, but not finished module

Is there anything you would add?

Yes, good practice and understanding for parallel programming in everyday programming is something all computer scientists should have and something this module hasn't really addressed at all. I would have also liked some of the following mentioned: (Sir) Tony Hoare's Communicating Sequential Processes (a paper which revolutionised parallel and concurrent programming), Thread, coroutine, and process multiplexing, The differences between threads, coroutines, and processes, The differences between concurrency and parallelism

(ref Rob Pike), Cross-process memory management, Good caching and memory control to reduce the use of locks/semaphores.

Is there anything you would get rid of?

Too much time spent on supercomputers

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

Yes they are all asking about knowledge there is no analysis or implementation etc.

Do you think it right that it covers all stages?

A more broader look would have been better

Having looked at these learning outcomes do you think these are all achievable?

Overall I think they are achievable, however I think number 4 would be quite hard as it requires a lot of maths

Communication Networks

Me

P10

P11

Explain to me in your own words what you believe you are learning from module Communication Networks

Like protocols

Yer we're learning all the protocols at the moment and then we're learning the in-depth bits about the protocols, how they work together, different ways of how to set up networks

Oh that's it, and the network interface cards

And then how the computers communicate

And then we learnt about all the different categories of cables

The case study was for learning how to set up the network

Coursework, did you go into technical detail

A little bit because I went into the different privacy acts in America because I did about censorship

I did ownership and monitoring. I feel like we learnt much of that stuff

That's not a learning outcome you could define because for the essay you choose your own topics

I didn't know if this was networking, because it was more about the legislation of networks

Yer well it was about how the networks affect the government and the ethics

How do you think this module fits in within the Computer Science degree programme?

I'd say it was pretty much essential, I mean we're dealing with basically communication between computers which is pretty much

The main thing

I mean from the smaller scales of your phone to PC or between every computer in the world of the internet I mean it's got to be one of the most important there is, everyone pretty much uses a network somebody has to know who it works.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

I'd say 9 as I think there will some things that are missing

Yer 8/9

Do you think there were any specific skills you were learning from the module?

I wouldn't say I've learnt anything I can practically use

Well actually there was that tunnelling thing

What SSH tunnelling? I don't know how to do that

That's something I've learnt

Well apart from that, nothing at this current moment but I've got a lot of theoretical knowledge

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

No more than anything else

The only thing that is complementing it for me is my A-Levels

Would you change when the module was taught?

I can't think of any instances where I needed it in first year, I think it's fine were it is

It's probably one of those modules that can just fit anywhere

Its actually one of those modules were you didn't need much previous knowledge for it, I kind of could of done it either first or second year

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

I think we've done some other protocols in one of our modules in first year.

I think we've learnt some of the protocols in web apps and learnt the layers in operating systems

Do you think the overlap is justified?

Yer it was only 10 minutes on each topic

It was just reminding you really

Now have a look at the list of Learning Outcomes for Communication Networks I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

I think we do cover them

Yer the networks ones, number 6 is the coursework we have done

Yer didn't see it at first but

Do they all sound right for the module?

Yer they all sound right

They haven't really got on here anything to do with the practical application which he does go into quite a bit

Yer now you mention it we don't know much about the actual integration. We know a lot theory but not about the practical application

He tells you what products do the things but doesn't show you how to implement

Do you understand all of them?

Well without any background number 8 I'm not sure what that is getting at

We obviously haven't been taught that yet

Yer but I still don't get what it's going on about

Do you think all the learning outcomes are equally important or any that are more so?

I'd probably say "the use of operational key standards" because that is pretty much the standard for transferring or encrypting any information over the internet. But I wouldn't say it's that much more important because it relies on the other learning outcomes. You can't have one without the other.

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

Knowledge yer, comprehension yer, application no. Round week 8 we have no practical learning

Do you think it was good that it was focuses more on knowledge and comprehension?

I suppose

Its depends on how much they are planning to put in because if in the pervasive they put in or use some of the network knowledge that might be good

I guess the thing I'd think is if I was going into networks I wouldn't like the fact we don't have any practical knowledge. Like when it comes to programming and we cover java we do java, when we cover databases we do databases but apparently we just don't

I suppose if you did the case study you learn a bit of the practical knowledge; but you have a choice with that as to what to do

Having looked at these learning outcomes do you think these are all achievable?

Yer I think they are

Yer I think it was a step up but doable

Database Systems

Me

P10

P11

Explain to me in your own words what you believe you are learning from module Database Systems

I guess the theoretical side of how you start constructing a database

Yer, how to break it down so you can always add more

Yer and make a more effective database. But I guess now we are actually doing the practical part

Well the labs that we have been doing is all the practical side

Yer there's a lot of practical, there isn't really a lot of help in the labs.

Well the actual booklet is the main part.

Yer I know it covers the majority of it I just.

How do you think this module fits in within the Computer Science degree programme?

As far as I'm aware databases is as about as important as networks pretty much all the information needs to be stored therefore I guess the best way is in databases.

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

I'd have to go really high, probably 8/9 again

Yer I'm going to go with 9

Do you think there were any specific skills you were learning from the module?

I guess we're learning how to use oracle, I already knew how to do database normalisation but

He's taught it a lot better than my A-Level teacher did

Yer I had to learn it for courseworks before but I think if I hadn't already known it I would probably know how to do it now.

I didn't really cover it at all at A-Level, we did cover it slightly in the syllabus and one question in an exam but

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

I think this was another one of those standalone modules.

Yer, I don't think so

Would you change when the module was taught?

I think it could be done a little bit earlier as then it can be used in the group project

Yer I think databases is really important to know earlier

Because our group project, luckily myself and someone else in my group, already know a lot of databases and when we were presenting our requirements reports knowing about the database side of things was really useful

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

The knowledge unit doesn't overlap but you could use the knowledge in other modules

Now have a look at the list of Learning Outcomes for Database Systems I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

We have pretty much covered all of them

Hmm yer

What's the difference in number 5 between conceptual and logical? Because you would have thought that logical would have fit around physically and conceptually because you want it to be logical.

You would think it would be like "A logical system conceptually and physically" I still agree with it maybe the wording is a bit strange

Do they all sound right for the module?

Well SQL is the main database one isn't it, so yer

Do you understand all of them?

2 I was a bit thrown off by the DBMS until it was explained to me

Would you add anything to the list?

Some of them are pretty broad

Where would normalisation come in?

They are so broad they could probably cover anything. Like when they say "illustrate the basic database concepts" define basic.

Do you think all the learning outcomes are equally important or any that are more so?

I guess the design and development as that is practical use of the knowledge

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

I'd definitely say we've got knowledge, comprehension and application

Analysis is working out the actual schemes and working out how to split them down because you need to comprehend it, learn it then you've already applied it so work out how to split

Synthesis

No not synthesis

I reckon after this module you could easily make your own. Evaluation, well yer we've got the knowledge so we need to know if we have the right thing. So yer.

Do you think it was good that it was focuses more on knowledge and comprehension?

I think it's useful because when you get to the real world you need to be able to get it to work

And you need to know how and why it works so a balance is just what we need

Having looked at these learning outcomes do you think these are all achievable?

I'd say so long as they paid attention

Yer he's definitely covered normalisation a lot better which is the hardest part of any of it

I mean if we're talking about a student who had done all the stuff and applied themselves then yer generally I'd say there is no reason why you couldn't

But I haven't been paying masses of attention but I'd still say I can I've picked up quite a bit of the normalisation just because he does give you a general point and then go into it in more detail and from that general point you pick it up

Yer he's good at what he does, no complaints, so I'd say on average you could.

Computer Forensics

Me

P12

P13

P14

Explain to me in your own words what you believe you are learning from Computer Forensics module

How to detect if people having been doing bad things with their computer

We had to sign this disclaimer thing to say we wouldn't use it for harmful activities

Learning the principles of how to detect and prove if people or there have been malicious activity

And how to do it

I think the labs are a little bit silly in the first 6 weeks we were taught how to do it manually and then the coursework did it all automatically

But it's as he said, if you went into court you have to prove

I don't have to go to court

But it's part of the learning for the module

He teaches about the laws too, part of the laws

An overview

Well yer he isn't going to go into depth, but it's nice to have the overview

How do you think this module fits in within the Computer Science degree programme?

Yer pretty good, actually I think there should be more of it, it should be a double module

I think it's quite an outside module because its completely different to anything else we do

But I think it is completely different but it should be more integral

But why? Because in some senses if you are more interested

But there are more jobs in this

You are probably right, but it's more specialist

Other unis do just do forensics degrees

I do think it is good though, and to learn about it

I think it's good because it's something different to what we have been learning previously

It wouldn't work without Mike Daley though, as he is a specialist in that area

Well you could if you got another specialist. It is good to have the chance to specialise in third year, or to have a go at computer forensics try it and then if you don't like it know that it's not for you

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

I'd say 10, its pretty relevant

I'd say 7

I wouldn't say 10

What would you say was more relevant?

I'd say the programming modules are relevant to our course

Computer Science as a whole is a very general degree though, it's not, like you have the forensics side or the maths side or the physics side of it, Computer Science is a bit of everything

Okay I'd say 8

I'd say 7

Do you think there were any specific skills you were learning from the module?

A skill could be recovering data and stuff

Knowing where things are stored on the disk

It's more of an interesting one

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

No

No, it's standalone

Would you change when the module was taught?

No it's definitely a year three module

Why do you say that?

Because it's definitely more specialist, I don't think in year 2 I could say whether

I definitely think it should be optional

I think its year three, because it's something a bit different in year 3 rather than the same old stuff

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

Yer there is a slight overlap with architecture were we did the hex stuff

Yer

Now have a look at the list of Learning Outcomes for Computer Forensics I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

Yer what we have learnt fit in with these definitions, from the title of the course though it wasn't quite what I thought the course would be, but then if I'd spent more time reading these perhaps I'd have known what the course was supposed to be

Yer, I thought we'd be looking more at what was on compromised disks and all that

I'd thought we'd have been seeing more documents and images, more real life stuff. Perhaps a bit more of an actual case, we did work through one but for me its been a bit slow in that I having seen anything

From the very beginning, for the first 6 weeks what was the point, what were we meant to be finding. Like if I'd known we'd been finding a document then it would have been like oh okay

Yer but they don't know that when they are analysing

That's not the point, I would have liked to have a seen a few document and a few images and a few videos, some dodgy website addresses and that

Do they all sound right for the module?

They are probably right for the module

I think there was an expectation that people knew Linux which some people might have found difficult

It's not the difficult

Do you understand all of them?

2, 3 and 4 I think are a bit vague

You don't know what fits into them

I think they are more high level, for example I think the sub-level of 3 is 9, I'd put them together

Would you add anything to the list?

I think everything I've learnt more or less falls under one of those, I don't I've learnt anything he hasn't put here

Do you think all the learning outcomes are equally important or any that are more so?

I'd say 6 because if you aren't handling your evidence right then everything you do is wasted

And I'd go for one

They all the same to me

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

No these ones don't because some of them want you to evaluate, the rules of evidence is you have to do this you have to do that, whereas if you are looking at evaluating principles that is a bit more open to interpretation that's for you to decide is it right to something this way or that way. They are a bit more varied

Yer there's a broad learning going on

Do you think it was good that it was focuses more on knowledge and comprehension?

For this one it should be broader because you want to be able to, for him to tell you certain things but then to also go into the lab and for him to have set up a workstation and for you to look at it and decide for yourself

Having looked at these learning outcomes do you think these are all achievable?

Probably

Probably

I don't know I think some people could struggle. Outside experience probably would help with this

Graphics

Me

P12

P14

Explain to me in your own words what you believe you are learning from module Graphics

OpenGL programming

Yer the OpenGL programming language

Well it's not a programming language, it's an add on to java

Graphical concepts

Achieving shading, textures and that

We're not learning how to create objects just how apply shading and textures to objects

Well

We've learnt how to move objects

We have learnt how to create objects at certain points and all that

Yer I suppose so I was thinking more of just

We do create some objects but in most cases we don't

We apply textures, shading, and lighting and can get them to move around the screen

How do you think this module fits in within the Computer Science degree programme?

Yer it's probably, you've got to have graphics module somewhere

That's a pretty big aspect of computing really

And I suppose if you're looking at going into computer gaming it will be useful then, sort of CGI stuff

If you were to rate it on a scale of 1 to 10, 1 being very irrelevant and 10 being very relevant, how would you score it?

I'd say 9

I was going to say 8, slightly more relevant than computer forensics to a computer science degree but less people do it because of the pre-requisite scientific computing

Do you think there were any specific skills you were learning from the module?

Programming again

I wouldn't say programming

Well I'm learning it. I've also learnt how to use eclipse

Do you think there were any modules you were studying at the time, that were running alongside that complimented what you were learning?

Yes scientific computing because you had to do it

Yer that definitely does

I suppose the java one from Mike Daley because we are using java

We aren't writing that much java but you've got a concept of the main

Would you change when the module was taught?

No

It's too hard for second years

And you couldn't do it in second year because you've got that multimedia one before

Do you think there was any overlap between this module and any others you were studying at the time or modules you studied afterwards?

Some of it with the scientific computing with the maths side

Yer apart from that nothing much

Do you think the overlap is justified?

Yer, refreshes

It's a key thing I think the maths and it does go into slightly more detail

Now have a look at the list of Learning Outcomes for Graphics I am passing around. Take a minute to read through these; and then let me know what your initial reactions are towards these?

Yes definitely, some sort of framework to create, user interaction, applying different things to it

Yer

Do they all sound right for the module?

Yer they are all right

Some of number 5 all the algorithms, we haven't covered them yet, but some would be more useful than others I suppose, would I need to know all of them?

We haven't been taught it yet so we can't really judge, I would say

Would you add anything to the list?

It doesn't say specifically about using Gogl

Well it's a graphic library

I think they could make that a bit clearer though, that you are going to learn how to use Gogl

Do you think all the learning outcomes are equally important or any that are more so?

4

Yer I'd say 4 as well

Using the API to create images and user interaction. That's the one for me, in a way it's the part that interested me the most

Do you think the learning outcomes are all fairly similar or are they asking different things of you?

I would say they are quite similar because most of them seem to be algorithms or something like that, that you would use in the graphics API

Yer it's an interesting one, and it might be because of the way we're given it we don't have to do much of here's a blank page write stuff for yourself it's all, I mean his way of teaching it is very good as in step one you have to do this step two, so he's guided with his teaching but there's no sit down can you start one from scratch sort of thing. I wouldn't want him to change how he's taught the module though, I'd like to get to a stage of trying it all for myself but I don't think I could. It might be nice to though. You can't teach everything you need in a short space of time.

He has sort of told us how to from scratch, because he said if you need those 4 methods.

Yer I suppose so

He's given you what you need

Yer we just haven't had a chance to practice that. Although I suppose I could go home and practice it myself couldn't I. I think there could have been scope for this module to have had a part one and some of the stuff we've done to be one. If some of the stuff had been taught in second semester last year or two parts this year so then there could be some scope for doing what we are learning now in part 1 and then going into it a bit further in part 2. As I think by the time we've finished it there will be a lot we've missed that you could add. I'm not saying it has been missed.

He's probably not teaching us the advanced stuff

Yer because of the time

So they perhaps could

Do you think it was good that it was focuses more on the first few levels?

Yer I think it is

Yer because it's a specialism

You can't do a broad

That was what is was more like last year a bit of this and a bit of that, broader

Having looked at these learning outcomes do you think these are all achievable?

You've got to be good at maths

Yer, I think you can struggle even with the maths taught

The maths is hard

We haven't been taught enough complex maths in previous years. We could almost do with one hour a week with not maths exercises, we have that they are good, but with another to literally be taught like you were in school, sit down I'll write it on the white board you copy it up

Well

For some of them you could though, that's my opinion

I agree that going over it with you would be good

Somebody perhaps from the maths department, someone has just a bit more maths experience or more teaching oriented can get it across better