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15 July 2021

Enquiry: Student Feedback Office, X3081
Reference: SFB32627_21IW_THE01

LECTURER: Dr R Theart
DEPARTMENT: Electrical and Electronic Engineering
MODULE: Computer Systems 214

On 15 July 2021 CTL received electronic feedback from 76 students regarding the above-mentioned module and lecturer. The feedback was collected between 7 June 2021 and 21 June 2021.

The feedback is divided into three categories:

1. General
2. Feedback on the module and lecturer
3. Comments from students

The analysis of the data is done in the same order. For category 2, feedback is given as an average mark on a continuum from one to five. These results are illustrated graphically. The unedited comments from students are also attached.

Regards

Roshnique Pharo
Student Feedback
CTL

Copies:

Dean: Engineering
Departmental Chairperson: Electrical and Electronic Engineering

Module / Module: **Computer Systems 214**
 Department: **Electrical and Electronic Engineering**
 Dosent / Lecturer: **Dr R Theart**
 Datum / Date: **07-06-2021**

Aantal respondente:
 Number of respondents: 76

Module / Module: **Computer Systems 214** 07-06-2021
 Dosent / Lecturer: **Dr R Theart**

In hierdie module (of gedeelte van die module) wat direk en/of aanlyn aangebied is: <i>In this module (or the section of the module) presented F2F and/or online ...</i>	Gemiddeld Average	Verskil sterk/ Disagree strongly	Neutraal/ Neutral	Stem saam Agree	NVT/ NA
1.1. ...is die leeruitkomste duidelik gekommunikeer <i>... the learning outcomes were clearly communicated</i>	4.4	1 1%	7 9%	67 88%	1 1%
1.2. ...het die leergeleenthede my in staat gestel om die leeruitkomste te bereik <i>...the learning opportunities enabled me to achieve the learning outcomes</i>	4.3	3 4%	11 14%	59 78%	3 4%
1.3. ...was dit vir my duidelik hoe die module toepaslik op my kwalifikasie is <i>...the relevance of the module to my qualification was clear to me</i>	4.6	2 3%	4 5%	65 86%	5 7%
1.4. ...het die leergeleenthede daartoe meegewerk dat ek kennis van die vak opgebou het <i>...the learning opportunities facilitated my knowledge building of the subject</i>	4.4	1 1%	9 12%	63 83%	3 4%
1.5. ...het die leergeleenthede my daartoe aangespoor om self verantwoordelikheid vir my leer te neem <i>...the learning opportunities encouraged me to take responsibility for my own learning</i>	4.5	0 0%	7 9%	66 87%	3 4%
1.6. ...het die leergeleenthede my gehelp om my ontledings- en probleemoplossingsvaardighede te slyp <i>...the learning opportunities enabled me to develop my analytical and problem-solving skills</i>	4.4	2 3%	8 11%	61 80%	5 7%
1.7. ... is die leergeleenthede deur wedersydse respek gekenmerk <i>...the learning opportunities were characterised by mutual respect</i>	4.4	0 0%	8 11%	62 82%	6 8%
1.8. ...kon ek betekenisvol aan die leeraktiwiteite deelneem <i>...I could participate meaningfully in the learning activities</i>	4.1	4 5%	13 17%	56 74%	3 4%
1.9. ...was dit voor elke assessering duidelik wat die assessering van my sal ver wag <i>...it was clear before each assessment what would be expected of me in the assessment</i>	3.9	8 11%	20 26%	46 61%	2 3%
1.10. ...het die terugvoering op assesserings my gehelp om my leerbehoefes raak te sien en aan te pak <i>...the feedback on assessments helped me identify and address my learning needs</i>	4.3	4 5%	11 14%	57 75%	4 5%
1.11. ...was die dosent se terugvoering deeglik en tydig <i>...the lecturer responded in a comprehensive and timely way</i>	4.6	2 3%	3 4%	63 83%	8 11%
1.12. ...is 'n verskeidenheid instrumente en metodologieë toegepas om diverse leergeleenthede te skep <i>...a range of tools and methodologies were applied to create diverse learning opportunities</i>	4.3	1 1%	12 16%	60 79%	3 4%
1.13. ...is my leer deur tegnologie-ondersteunde onderrig en assessering verryk <i>...technology-enhanced teaching and assessment enriched my learning</i>	4.4	2 3%	7 9%	64 84%	3 4%

(1) Gemiddelde tempo gebaseer op 'n skaal van 1 tot 5 (1 = Baie stadig en 5 = Baie vinnig):

Baie stadig en Stadig is saam gegroepeer as Stadig en Vinnig en Baie vinnig as Vinnig.

Average pace based on scale 1 to 5 (1 = Very slow and 5 = Very fast)

Very slow and Slow are grouped as Slow and Fast and Very Fast as Fast.

(2) Gemiddelde moeilikheidsgraad gebaseer op 'n skaal van 1 tot 5 (1 = Baie maklik en 5 = Baie moeilik):

Baie maklik en Maklik is saam gegroepeer as Maklik, en Moeilik en Baie moeilik as Moeilik.

Average difficulty based on scale 1 to 5 (1 = Very easy and 5 = Agree strongly):

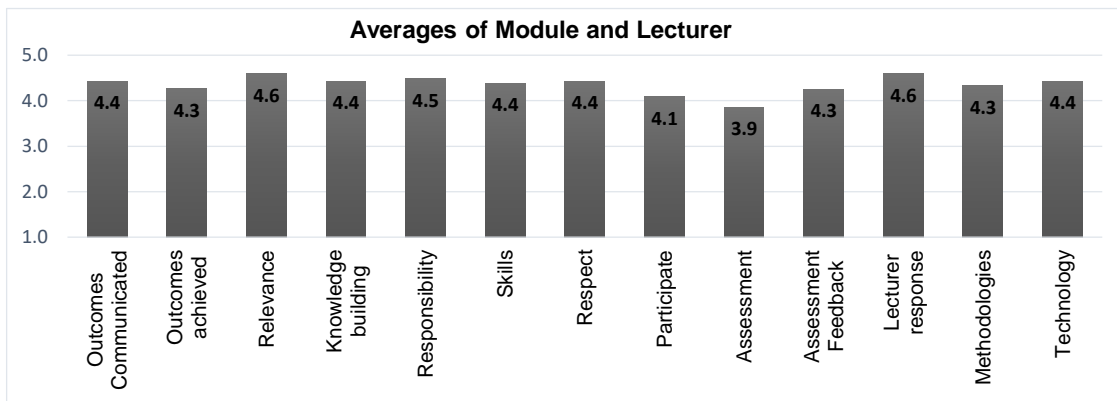
Very easy and Easy are grouped as Easy, and High and Very High as High.

(3) Gemiddelde gebaseer op 'n skaal van 1 tot 5 (1 = Baie laag en 5 = Baie hoog):

Baie laag en Laag is saam gegroepeer as Laag en Hoog en Baie hoog as Hoog.

Average based on scale 1 to 5 (1 = Very Low and 5 = Very High):

Very Low and Low are grouped as Low and High and Very High as High.



	Direkte onderrig en assessering op die kampus / F2F teaching and assessment on campus	Aanlyn onderrig en assessering / Online teaching and assessment	Direkte EN aanlyn onderrig en assessering / Both F2F and online teaching and assessment	Aanlyn onderrig en assessering én direkte praktiese opleiding/ Online teaching and assessment and F2F practical	Ander/ Other
Hierdie module is op die volgende manier(e) aangebied	1	9	19	43	4
<i>This module was presented via the following mode(s):</i>	1.3%	11.8%	25.0%	0.0%	56.6%

	1-2 ure / hours	3 - 4 ure / hours	5 - 6 ure / hours	7 - 8 ure / hours	9+ ure / hours
Hoeveel uur het jy gemiddeld per week buiten amptelike lesing-, tutoriaal- en praktikumperiodes aan die module gewerk?	5	21	25	16	9
<i>How many hours per week on average did you work on the module apart from official lecture, tutorial and practical periods?</i>	6.6%	27.6%	32.9%	21.1%	11.8%

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Average based on scale 1 to 5 (1 = Very Low and 5 = Very High):

Very Low and Low are grouped as Low and High and Very High as High.

Wat was die beste aspekte van hierdie module of modulegedeelte?***What were the best aspects of this module or module section?***

- Nog nie deur al die werk nie, so kan nog nie behoorlik antwoord nie.
- Die prakties.
- Die doesent het al die werksinhoud goed verduidelik en voorbeelde gewys.
- Dit is baie intressant meer te leer oor die verskillende aspekte wat rekenaars en hul komponente opmaak ek het dit baie geniet.
- Om vir die eerste keer die werk wat jy geleer het, toe te pas op 'n projek.
- Dit is baie verrykend en alhoewel ek die werk soortvan abstrak en uitdagend vind, bly dit vir my interessante kennis om op te doen.
- Arm programming en om te leer hoe 'n cpu werk;
- Lectures
- Dr Theart, you were amazing. You can tell your passion for the work but how excited you seemed. You have really helped me enjoy the content, even though I have been struggling with it. You were an amazing lecturer
- Interesting content taught enthusiastically
- Dr. Theart is an excellent lecturer and is clearly passionate about helping us learn and grow academically. I appreciated the MS teams group and MS teams interactions and, for me, it's better than only having a student forum on SUNLearn. For example, being able to video call a demi during the tutorial session.
- The length taken to simplify and clearly explain problems at hand
- The lecture videos on youtube were extremely helpful. The videos on the practical memos were good. they helped me with the necessary thought process. The Arm example videos were also really helpful to understand the thought process behind developing instructions
- The lecture slides were easy to follow and understand. Made more sense to me than trying to learn only from the textbook
- Learning how all the smaller components came together to be part of a bigger whole ie. Alu's
- Learning how computers work in a very fundamental way. Learning ARM programming.
- It's awesome! Definitely my favourite module. It's very interesting, and I'm learning things I've always wanted to know! Especially about how coding translates into 1's and 0's, and how logic and components actually create a processor. Wow!
- The content was very interesting
- The lectures were very in depth.
- The lecture videos are well made and concepts are clearly explained.
- The lecturers were very passionate and made great resources
- Helps build greater interest in computer systems for students that already have interest in computer systems
- Learning about how computers work
- Sequential circuits and Arm programming
- The lecturer giving many real life applications of the work that we were covering. The work was presented in a logical and understandable manner, and there was very little ambiguity.
- The chance to develop an in-depth understanding of how computers, which we use regularly work.
- Its not too difficult
- Very well presented, enthusiastic lecturer and quality content.
- The way the module was presented is by far the best I have seen. The use of the technology and presenting the lectures the way you did helped very much.
- ARM coding
- The class presentations were off the charts impressive. The videos were sometimes a bit too long took a long time to go through them and then one still haven't practise any of the concepts.
- Learned the basis of Computers
- The practicals

- Practicals, not including ARM assembly
- The Arm language was explained so it was easier to engage with
- The practical part where you needed to build stuff was a lot of fun and you learn a lot by building and figuring stuff out. Also the prof. helped a lot with the project which allowed us to complete it and then also learn from it.
- The content was extremely interesting. I could see its application in my degree.
- still struggle with some of the implementations of what we learn in this module but, the lecturer presented the lectures in an exciting and interesting way which really made it enjoyable to work on this module.
- The lecturers
- The content is very onteresting and exciting. The practical application of the theory helps a lot as well.
- The whole module overall is really awesome. Dr Theart is a super genius and most awesome lecturer. By far best audio visual content.
- The content about machine language and assembly kanguage was very intriguing
- The lecturer was very nice
- Module covers a lot of very interesting and relevant topics in a short amount of time.
- can take an instruction and execute it. This is something you cant really do with high level languages like C.
- N/A
- It is very interesting and is well explained in the lectures, thus allowing students to fully indulge in the assessments.
- Very interesting and well presented work. The lectures were comprehensive. The work was made to be engaging.
- Seeing its relatel to my degree
- The lecturers are amazing. Really good people and have excellent personalities.
- The lecturer! He puts in so much effort and is always willing to help!
- ARM
- The application of the work we have done
- n/a
- The lecture videos were nice.
- Gaining knowledge on how a basic computer is built
- The learning technique was good
- ARM Programming
- I enjoyed the practicals every Friday since they ask intuitive questions and allows ample time to answer and dive into them.
- The topics are very interesting.
- Going to the practicals really helped and I wish I went earlier.
- NA
- I lived programming in ARM to create the party terms on the display! Really fun!
- Learning a new computer language.
- Good lecturer. I
- The lecturer made sure to keep the topic interesting and engaging as well as explaining everything in a concise and easy to understand way which made doing work for this module enjoyable.
- I found it really interesting how the module taught us how computers work
- I really enjoyed the ARM coding. It was fun, intuitive and was clearly explained.
- I enjoyed seeing the differing levels of programming and found the interaction between the user and the hardware very interesting.
- Assembly language and machine code
- The lecturers interacted with students more than other subjects.
- Understanding how a computer actuallyworks
- The lecture videos were very helpful and complete.

- The lecturer went explained how the materials would be applied in practice which made the course more relevant. The work in general is very fun and interesting. The lecturer went beyond the call of duty to make sure that the class as a whole understood all materials. He was invested in us.

Watter aspekte van hierdie module of modulegedeelte moet verbeter?

What aspects of this module or module section need to be improved?

- Ek het gevoel dat alle modulegedeeltes goed gedek word.
- Die hoeveelheid nuwe werk per week is effens hoog, in vergelyking met ander modules.
- Ek dink die module is baie goed.
- Dit sal help as meer voorbeelde deurgewerk word of daar 'n ekstra stel probleme (soos 'n tutoriaal) vrygestel word om voor te berei vir die prakties elke week. Dit is soms moeilik om die werk wat jy sopas geleer het dadelik toe te pas op 'n prakties en vir punte.
- Die lesings bevat verkliklik baie inligting, maar bygesê, dit is alles nuwe konsepte so dit kan dalk die rede wees hoekom dit soms oorweldigend kan voel.
- Aangesien ons (ek altans) nie f2f sessies het nie, kan meer of ander voorbeelde die verstaan van die werk verbeter. Veral as jy in die slides 1 voorbeeld sien van 'n sekere som/bewerking lyk dit eenvoudig, maar in die tut/tt voel dit so bietjie op 'n ander vlak.
- Tutoriale/praktiese
- None
- Aa
- Create a better link between the content and the way it was examined
- When it comes to the online practical submissions: In the beginning of the module we received a pdf containing the questions, but later on we only received online quizzes that we had to fill in. If possible can the students still receive a pdf with the questions so that they can work out the questions without having to worry about the online logistics of only having the online quiz. (To elaborate: being able to complete the questions offline and then once done, go online and fill in the answers.) I do feel like this could be a better approach to working on the practicals.
- N/A
- Really not a fan of digital. I quite liked the first software we used before switching to digital.
- Little bit more help at our disposal
- More examples and explanation on ARM
- None.
- I mean, learning the microarchitecture last makes complete sense, it just feels like a bit of a bomb dropped on us in the last week, since it's very dense with everything we've learnt up to this point, and then some. Perhaps some extra resources or help sessions in the last week would help? To be honest, I would've benefitted enormously from an in-person tut this last week, but unfortunately things didn't turn out in favour of that.
- Not much, it was pretty good
- The quantity of work was somewhat unmanageable at times.
- None that I can think of
- None
- More detailed explanations are needed for the less intuitive aspects.
- It became very tiresome to copy and paste multiple screenshots from Digital into the prac document for the earlier pracs
- Nothing.
- It was sometimes unclear what sections of the work were very important for the following sections. It would be very difficult to gain a deep understanding of the entire course content within the time provided, so some guidance as to the importance of each subsection would have been helpful to further enhance the learning experience in the follow up sections.
- More of a recommendation, rather than an improvement, I would say it may be a good idea to create a document with some supplementary problems and solutions, apart from the weekly quizzes and ones in the slides.
- None

- I would say that more emphasis needs to be placed on allowing students to practice theory, although not applicable to a portion of the current work, the more theoretical work is not practiced enough in my opinion after writing A1.
- There is not much that can be improved.
- Shorter videos
- Difficulty needs to come down. There is an over expectation of what our knowledge is about the subject.
- Better communication to how questions will be asked in exams
- The teaching of the understanding instead of the content.
- The lectures are way too long for each day with far too much information being given to the point where it is impossible to learn everything, and it takes at least 2 full days of work to cover all the content each week. Amount of work is ridiculously high.
- The explanations on how to optimise circuits and Arm code
- There is sometimes the problem of not really knowing how the theory and practical aspects of the module connect.
- n/a
- The only thing I think that could be added to help students is maybe more exercises to practice. Maybe a tutorial to practice the code and implementations during the week with a memo made available so that we can see what we did wrong where and how to fix it before the prac/quiz that is due on a Friday.
- Length of tests
- The content is a bit too much to allow a deeper or even proper understanding of the work.
- 48 min lecture videos are quite tedious. everyone probably watches at 1.5 speed. I maybe prefer 6-7 min videos with quizzes in them - pause, do it yourself, lecturer shows solution. It was a living crap load of content. It doesn't seem so bad in hindsight but the slides amount to a decent textbook. I am nauseated at the idea of reading content off my computer because it is a luss to navigate between the lecture slides so making notes was essential but omits much of the content. Every question of every tutorial was unlike the slides or anything else on the internet, which made progress slow and frustrating because I simply could not suck the knowledge out of my head. I don't want to defer to the internet. I feel close to failing this module but not out of my own lack of understanding. So far I have reached some mastery of each section but always a week after the test DX. In short: This module needs F2F (not first thing in the morning pls) with daily little quizzes. FUCK ONLINE!!! eks gatvol!
- The content does not go into a lot of examples.
- The method of assessment it makes little sense for a course on circuits to be tested theoretically
- Module has a lot of content that needs to be covered, and is tested selectively. This can cause many students to fail at specific tests and exams, which can demotivate students.
- I know it might be a bit more work, but I would find it very useful if there could be separate videos for content and examples. Sometimes, I find myself understanding the content really well, but practically applying said content is a struggle. This was the case for state machines and the early stages of the transmitter/receiver. I knew I understood state machines about as well as I felt like I could, but actually applying it was the issue. Once prof Booyesen posted those example videos/ discussed it in the Q and A session, it really cleared a lot of things up for me. I feel like if the same could be done for each of the sections, it would be extremely beneficial, although a lot of work.
- N/A
- No aspects need to be improved, it has just been tough because this subject requires a lot of work so trying to keep up in the five-week span has been difficult.
- The Sunlearn page layout is very confusing, and oftentimes feedback on tutorials was not comprehensive and difficult to find.
- The tests were a lot harder than previous years
- It is honestly just too hard. And the workload that we have is just too much. Also the exams are just too academic and I feel like nobody was positive whatsoever after A1

- Too much content in a VERY short period of time for example the programming.. it needs to be practised and time needs to be spent on it, but it was just all happening too fast and there were so many other projects happening too.
- First term work needs to be taught in an application based sense. The theory is relevant but we're not taught how to apply it i. The real life
- Interacting with students to understand the work on a deeper level. Most students jus jump into the work and have no idea how to do it or where it fits in
- n/a
- Exam preparation
- Having concrete examples which can help us understand the content more.
- The length of the video lecture
- I am completely satisfied with the module content.
- Some practice ARM questions (apart from the practicals).
- More examples.
- I would prefer practicals in pdf format and then a quiz to enter the answers instead of the entire practical on sunlearn.
- NA
- The lectures are too densely packed with info. That causes me to very quickly burnout after just 1
- nothing
- In person pracs so that students can interact with the work as opposed to making digital simulations that don't make you feel like you know the work.
- None, this module was one of the best I've ever experienced
- Nothing comes to mind
- Boolean Algebra possibly. A few more questions would be welcoming. I could not find questions to practice the Boolean algebra besides from pracs/tuts, and in those pracs/tuts there was only a select few and not all the theorems were being tested. The A1 came I could not even recognize how to simplify the Boolean algebra question, even though I thought I was prepared.
- I feel the pacing of the module is fast and often its hard to absorb all the content, I found myself going back forth through lectures a lot.
- Explanation of binary multiplication
- More shorter videos instead of less long videos. It makes it easier for the student to learn.
- We should have more f2f practicals
- None
- If the lecture videos could always be released the Friday or Saturday before the upcoming week of work, that would help tremendously. More examples of practical applications should be shown for the first half of the course at least.

**Wat was die beste aspekte van die direkte en/of aanlyn leergeleenthede?
*What were the best aspects of the F2F and/or online learning opportunities?***

- In persoon tutoriale.
- Die doesent het altyd my vrae met n belangstellende houding beantwoord
- Ek het die praktiese sessie en die aanlyn prakties daarna baie geniet.
- nvt
- Dit was prakties.
- Nie van toepassing.
- n.v.t
- Going in person for help with practicals
- Rr
- Learning opportunities that were remote were helpful because they could be completed on my own
- The lectures were done well!
- The length taken to simplify and clearly explain problems at hand
- The thoroughness of the lecture videos and practical memos
- Engaging online resources and contact with assistance from staff.
- Being able to build circuits we were learning about and practically seeing what were learning
- The in-person tuts helped enormously. I leant so much from the demis, lecturer and definitely my peers. I love that we got to use VisUAL and the mapped display. This definitely enriched my learning experience
- They were interesting
- The tutorials were very helpful.
- Interactive
- You could get constructive help if you were stuck.
- No need to risk a covid infection by attending F2F lectures
- Learning about how computers work
- Tutorials were fun to do, with some challenging aspects and some form of competition.
- the practical sessions.
- Very interactive, lecturer and demis helped a lot
- Lectures provide a very good insight into the topic with concepts explained exceptionally well. The textbook fails to even come close to explaining the concepts that well.
- The lecture videos went so thoroughly through the work.
- F2F tuts
- the class presentations.
- Fast replies on questions
- The practicals and programming
- Practicals
- There were opportunities to ask questions
- The face to face tutorial session were the best. You learn a lot by asking demi's face to face; you also learn a lot by doing things in a practical manner.
- I appreciated the Microsoft Team's group where questions could be asked. The lecturers were very active on this forum which aided learning.
- The prac memo videos helped alot as well as the in-depth lectures. I wish the lectures and pracs could have been in person but the online style was done well by the lecturer.
- The amount of effort put into lecture videos
- The pracs allowed a practical perspective on the theory to be seen.
- I really can't think of any. They try to break me down and make me want to cry as I have hardly been able to complete one on my own. Its not that I wasted time with them, I just needed a few more days to digest each section. This module absolutely needs to be taught F2F (I could scream and cuss that that won't happen). Small quizzes had to happen everyday - not at the end of the week!!! The formative quizzes are genius, I would find more value if the tutorials were structured like that (the check option).

- When we got to use VISUAL to practice and understand
- the pracs
- The lecturers were very enthusiastic. Lectures also explained most-all of the necessary content.
- Since this module required a lot of understanding of the concepts and wasn't something you could just swat, the youtube video format of the lectures was greatly appreciated. The overall Youtube interface is overall much more user friendly and easier to navigate than when the videos are simply posted to sunlearn.
- N/A
- The coding has been the best aspect.
- The mid semester project was fantastic, and increased my understanding of the work tenfold.
- Learning all the software and physical pracs here and there
- Great lectures :)
- Recorded videos were great! Just very long
- N/A
- Lecturers put in a lot of time and were always helpful
- n/a
- The lecturers sense of humor.
- Engaging with the content by writing code in lower levels of abstraction and creating our own functions such as multiplication and many others.
- Getting assistance at Tut section
- I enjoyed the weekly practicals and felt that they helped me understand the work a lot better.
- Practical sessions gave entire days dedicated to them which relieved some pressure and also gave enough time to understand them.
- The practical sessions are very helpful.
- NA
- Your overall presentations and explanations were great and helped me learn faster
- NA
- The lectures were very well thought out and they covered exactly what we needed to know while giving a good conceptual understanding of what is happening
- The fact that the lecturers were always willing to help to make sure that we understood the work.
- I could ask the Demis/Professor questions directly related to work and they could assist me.
- I felt the fact that there were no time limits on some of the practicals was nice as it meant I could focus on rather understanding what I was doing instead of simply trying to get marks. I unfortunately didn't utilise this to its full potential for some of the practicals.
- Building circuits
- I was the sailor of my own boat and I was able to make better notes by pausing and taking my own time.
- N/A
- The practicals really helped with understanding the work.
- The lecturer has a deep understanding and was able to answer all questions asked. The demis were also sufficiently competent to help out.

Watter aspekte van die direkte en/of aanlyn leergeleenthede moet verbeter?

What aspects of the F2F and/or online learning opportunities need to be improved?

- Persoonlik sou ek dit verkies het as daar meer verpligte in persoon sessies was.
- Daar kan dalk vir praktiese n oefengedeelte ingesluit word, waarvan die memo beskikbaar is, sodat studente daarna kan verwys as hul vashaak.
- Ek dink dit word baie goed aangebied ek het net n voorstel gehoor wat ek dink goed kan werk wat die gebruik van "oefen" toetse implementeer wat basies die weeklikse praktieka "quizes" oopmaak vir oefening nadat die toets amptelik verby is. Natuurlik sluit dit ook n funksie in wat vir jou se of jy reg of verkeerd is. Ek is net skepties oor hoe prakties dit sal wees om te implementeer.
- nvt
- Die studente kan dalk bietjie meer gelei word in die proses, om dit sodoende bietjie minder oorweldigend te maak.
- Nie van toepassing.
- Tutoriale/praktiese
- Maybe offer in person lectures as an option
- Once again create a better link between the content and how you examined it
- Can't think of anything else right now.
- None so far
- Somehow integrating practicals to exam type questions. I think the practicals gave a false sense of understanding of the work. The manner in which understanding was assessed in the A1 was quite different to the way it had been assessed throughout the first term practicals and tutorials.
- Unfortunately covid makes it difficult to get sufficient contact with lecturers.
- None.
- I cannot think of one
- none
- Some of the task for the tutorials were beyond our ability.
- None that I can think of
- More demis at the practicals.
- N/A
- The length of the lectures I feel could be shortened but other than that it was a very well-taught module
- NA
- I can't really think of one, but maybe going through some types of questions which we would be expected to be able to answer.
- More demis
- N/a
- That the videos can be downloaded.
- More demis at tuts
- Time of the video lectures and what they expect of us.
- Please keep the work load in consideration, 3de year mechatronics students struggle with work load
- The lack of in person pracs.
- In person tutorials with less content each week
- More opportunities to ask questions on teams as 2 hours on the Tut due date is not enough time to ask questions based on lecture understanding and the Tut itself.
- The tutorial sessions were too short sometimes for the amount of stuff you had to build and then demo. Also in the second quarter with the online tuts, some of them were very long and very time consuming. So you had to put in a lot more hours than is equated to the amount of credits the subject.
- n/a

- Nothing much to change here. As I mentioned in one of the previous questions the addition of extra practice opportunities could be very beneficial.
- Nothing
- The long videos with too much content is really demotivating.
- sigh needs to be F2F. More smaller learning opportunities that aren't for marks. The university term is too short imo. I've never seen a logic gate in my life before and so could not experience the same passion as the lectures most of the time. It felt like I should have felt more passionate but its just such a struggle to acquire some knowledge and for me the passion comes after the knowledge. This module could have gone quite a bit slower :(
- It would be more helpful to do more difficult programming examples to understand the process of taking logical understanding into practical application.
- More examples
- Covid negatively affected tutorial periods and lectures. Moving forward in a similar situation, tutorials can have points where the lecturer builds a circuit (physical or electronic) based on student input. More videos of circuits being built. A summary video of the week's worth could also be quite useful.
- Perhaps to split the slides into theory and examples, like making separate slides for examples only. This would work hand in hand with the example videos I mentioned earlier.
- N/A
- I think if the university allowed more F2F sessions it would be very helpful in understanding the subject better. It is easy to follow steps in coding when it is being shown to you but a lot more difficult to solve problems on one's own, thus being able to interact with the lecturers and demis and discussing code written would be very helpful.
- The tutorials/pracs could be more engaging and the assessment methods more like the exam/test.
- Maybe more past papers or what to expect of the tests
- Do more exam questions and explain what they want from you
- Very long lectures because of the INTENSE workload.
- First term's work
- More face to face sessions and demi's
- the amount of opportunities we can ask questions face to face
- More care to exam preparation.
- More examples of content taught
- None
- There aren't many time constrained assessment activities which leaves me very unprepared for the short time allocated for exams.
- None
- More examples would help a lot.
- May we please receive full codes in our memos and not only partial codes
- As stated before. The lectures are too densely packed and takes me double the time of the lecture to write all the notes
- nothing at the moment
- In person pracs.
- None that I can think of.
- Nothing comes to mind.
- N/A
- I feel that even more emphasis be placed on doing exam and practical quiz type questions in lectures.
- Explanation of shift registers.
- None
- More f2f pracs
- None
- I can't identify any problems with the learning opportunities.