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18 November 2021

Enquiry: Student Feedback Office, X3081  
Reference: SFB32943\_21IW\_THE01

**LECTURER:** Dr R Theart  
**DEPARTMENT:** Electrical and Electronic Engineering  
**MODULE:** Computer Systems 245

On 15 November 2021 CTL received electronic feedback from 96 students regarding the above-mentioned module and lecturer. The feedback was collected between 27 September 2021 and 8 October 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

Veronica Kleinsmith  
Student Feedback  
CTL

Copies:

Dean: Engineering

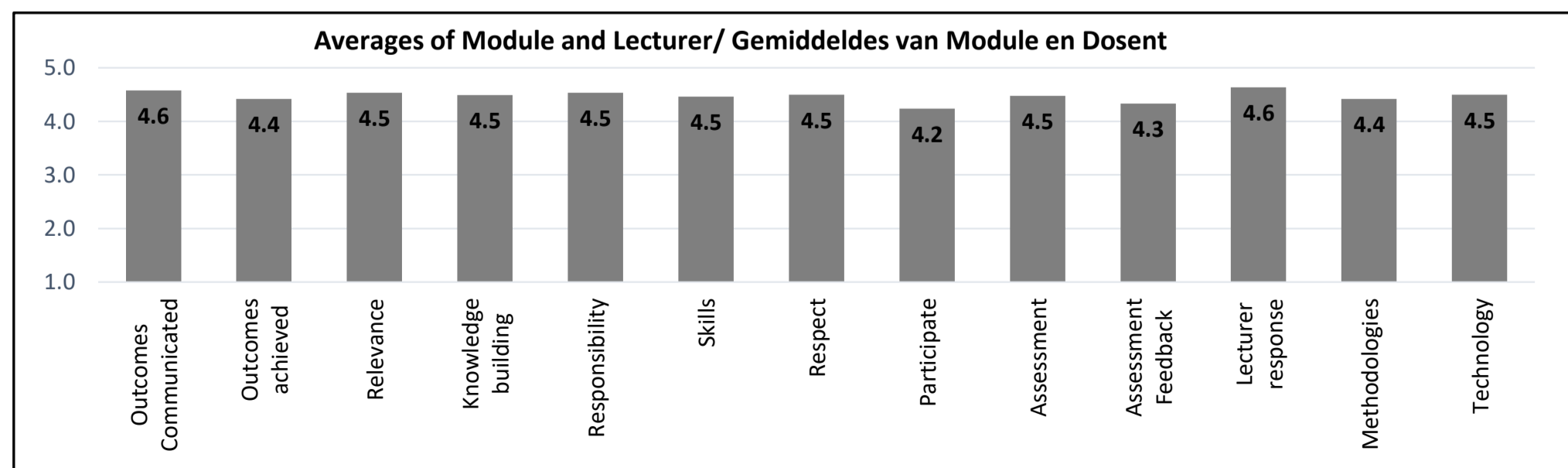
Departmental Chairperson: Electrical and Electronic Engineering

Module / Module : **Computer Systems 245**  
 Departement: **Electrical and Electronic Engineering**  
 Dosent / Lecturer : **Dr R Theart**  
 Datum / Date: **27-09-2021**

Aantal respondente: **96**  
 Number of respondents:

Module / Module: **Computer Systems 245** 15-11-2021  
 Dosent / Lecturer: **Dr R Theart**

In hierdie module (of gedeelte van die module), wat "F2F" of aanlyn of deur 'n kombinasie van die twee aangebied is: <i>In this module (or section of the module), presented F2F or online or a combination of both:</i>	Gemiddeld Average	Verskil sterk/ Disagree strongly	Neutraal/ Neutral	Stem saam Agree	NVT/ NA
1.1. ... is die leernitkomste duidelik aan my oorgedra <i>...the learning outcomes were communicated clearly to me</i>	4.6	1 1%	6 6%	80 83%	9 9%
1.2. ... het die leergeleenthede (lesings, tutoriale, ens.) my in staat gestel om die leernitkomste te bereik <i>...the learning opportunities (lectures, tutorials, etc.) enabled me to achieve the learning outcomes</i>	4.4	1 1%	10 10%	77 80%	8 8%
1.3. ... was die tersaaklikheid van die module vir my kwalifikasie vir my duidelik <i>...the relevance of the module to my qualification was clear to me</i>	4.5	2 2%	11 11%	73 76%	10 10%
1.4. ...het die leergeleenthede my gehelp om my kennis van die vak uit te brei <i>...the learning opportunities helped me to build my knowledge of the subject</i>	4.5	2 2%	7 7%	81 84%	6 6%
1.5. ...het die leergeleenthede my aangespoor om verantwoordelikheid vir my eie leer te neem <i>...the learning opportunities encouraged me to take responsibility for my own learning</i>	4.5	1 1%	8 8%	77 80%	10 10%
1.6. ...het die leergeleenthede my in staat gestel om my ontledings en probleemoplossingsvaardighede te ontwikkel <i>...the learning opportunities enabled me to develop my analytical and problem-solving skills</i>	4.5	1 1%	8 8%	80 83%	7 7%
1.7. ... is die leergeleenthede gekenmerk deur respek vir almal <i>...the learning opportunities were characterised by respect for everyone</i>	4.5	3 3%	7 7%	75 78%	11 11%
1.8. ... kon ek betekenisvol aan die leeraktiwiteite deelneem <i>...I could participate meaningfully in the learning activities</i>	4.2	6 6%	9 9%	74 77%	7 7%
1.9. ... was dít wat van my verwag is in die assesserings vóór die assesserings aan my duidelik gemaak <i>...what was expected of me in the assessments was made clear to me before the assessments</i>	4.5	1 1%	7 7%	81 84%	7 7%
1.10. ... het die dosent se assesseringsterugvoer my gehelp om my leerbehoefte te identifiseer en aan te spreek <i>...the lecturer's feedback on assessments helped me identify and address my learning needs</i>	4.3	2 2%	15 16%	73 76%	6 6%
1.11. ...het die dosent in alle opsigte omvattend en betyds gereageer <i>...the lecturer responded in a comprehensive and timely way in all respects</i>	4.6	0 0%	4 4%	80 83%	12 13%
1.12. ...het die dosent 'n hele reeks instrumente en metodologieë gebruik om diverse leergeleenthede te skep <i>...the lecturer applied a range of tools and methodologies to create diverse learning opportunities</i>	4.4	3 3%	7 7%	78 81%	8 8%
1.13. ...het die manier wat tegnologie gebruik is, my leer verryk <i>...the way technology was used enriched my learning</i>	4.5	0 0%	9 9%	78 81%	9 9%



Hierdie module is op die volgende manier(e) aangebied  <i>This module was presented via the following mode(s) (Mark one block):</i>	<b>"F2F"</b> onderrig en assessering op die kampus / <b>F2F</b> teaching and assessment on campus	<b>Aanlyn</b> onderrig en assessering/ <b>Online</b> teaching and assessment	<b>'n Kombinasie van "F2F" en aanlyn</b> onderrig en assessering / <b>A combination F2F and online</b> teaching and assessment	<b>'n Kombinasie van aanlyn</b> onderrig en assessering en <b>"F2F"</b> praktiese klasse/tutoriale/ <b>A combination of Online</b> teaching and assessment and <b>F2F</b> practical	Ander/ Other
	3	10	39	42	2
	3.1%	10.4%	40.6%	0.0%	43.8%

Hoeveel uur het jy gemiddeld per week buiten amptelike lesing-, tutorial- en praktikumperiodes aan die module gewerk?  <i>How many hours per week on average did you work on the module apart from official lecture, tutorial and practical periods?</i>	<b>1-2 ure / hours</b>	<b>3 - 4 ure / hours</b>	<b>5 - 6 ure / hours</b>	<b>7 - 8 ure / hours</b>	<b>9+ ure / hours</b>
	2	36	58	0	0
	2.1%	37.5%	60.4%	0.0%	0.0%

(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.**

## **Wat was die beste aspekte van hierdie module of modulegedeelte?**

### ***What were the best aspects of this module or module section?***

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- Lesings is baie deeglik en omvattend.
- Dit is baie interessant en 'n goeie uitdaging. Dit is lekker om te sien wat 'n mens met 'n 'microcontroller' kan doen.<sup>3</sup>
- Micro beheerders maak 'n hele nuwe wereld van probleem oplossing oop.
- Practicals
- Die beste aspekt van hierdie module was die Prof se bereidwilligheid om enige tyd my/ enige student te help en tot die beste van sy vermoë die inhoud van die werk te verduidelik.
  
- Die inhoud is baie intressant en ek geniet dit baie om meer te leer oor die onderwerpe wat behandel word.
- Videolesings en aanbieding in lesings.
- Ek sou se die werk het vir my meer prakties en toepaslik geraak (in vergelyking met CS214), wat vir my baie verfrissend was. Alhoewel ek baie sukkel daarmee, geniet ek die emulator en micricontroller programmering vreeslik baie.
- No comment
- Die dosent is baie passievol oor die module en onafhanklike leer word aangemoedig.
- Groot variasie van informasie en inligting
- Dr Theart is so passionate
- The mini-project
- Being given the opportunity to have the development board for the most period of the semester instead of using the emulator.
- 
- Having an actual practical outcome at the end of the project. Something you can show.
- Module content
- 
- The lab practical's as they enabled us the visually learn and apply the content being taught.
- Lecturer was very enthusiastic and readily helped.
- The video memo's
- 
- The feedback of practicals helped us to point our mistakes and improve our learning tactics.
- Understanding how code works
- The relevance this module has to my qualification
- The dedication of the lecturer in assisting the students with problems.
- Getting to play around with the development board.
- its a fine module
- 
- It was fun doing the practicals learning new things and how the games we grew up playing are made
- 
- The information has been interesting and has a lot of real weird applications that are demonstrated
- 
- Teaching us the practical aspect of the course by making us program fun things, like a game
- It's so cool!!!
- 
- Lecturer is clearly very passionate about the module and is very helpful outside of set times.
- The module is very interesting, with an intuitive practical aspect.
- The work was fun and interactive, and the content covered was interesting
- The lecturer was top-tier.

- The module is very interesting.
- The project
- In person practicals
- Lecturers enthusiasm and the pracs were always interesting
- Quality and enthusiasm of the lecturer.
- The lecturer made enough resources available, explained his thinking behind problems in memo videos and really explained the work well.
- Its very easy to see the practical real world use of what you are studying and there is very few elements that makes you ask "why am i studying this".
- Lecturer is very helpful
- The demos the lecturer done.
- It is a very interesting and exiting module. You can more clearly see how it is applicable to the real world.
- Learning how to code a microcontroller and how to debug.
- using microcontrollers
- Very well presented, coherent and interesting, cannot fault the lecturers at all.
- The application of the theory in the tuts
- Coding
- The lecture videos they were very comprehensive and helped with my understanding
- Loved putting what we learn into real life application (creating the Breakout Game).
- 

Very interesting and it is nice to see how this skills will be applicable in real world work situations.

- The programming of the game
- Working towards building a game.working with timers and interrupts.GPIO inputs/outputs, with manipulating specific bits in registers.
- I could say, all the module sections we have learn up to these far are the best.
- The concepts built on each other so you could follow step by step
- The tutorial memo viedos
- 

The lecturer is very enthusiastic about the module, which also contributed to exemplary lessons.

- Programming for the Microcontroller. It would be awesome to have more of that.
- It is hell
- The enjoyment of programming
- 

I know I will be commenting on this later onwards as well. BUT the best aspect was the lecturer and the EFFORT he put in - it is a tough module and quite difficult to grasp at first, but the lecturer really made it SO interesting and gave me a positive outlook in the module. To see how everything comes together (combined modules from the past) is really satisfying and rewarding!

- I just really enjoy coding
- Learning how to use the STMcube software.
- The additional information that contextualized the course work
- & Working with the STM development board.
- Using microcontrollers
- Coding a physical piece of hardware.
- The interactability with the microcontroller while I watched a lectures. Seeing what happens physicaply while programming and watching lectures.
- 

Switching from a written assessment format (A1) to an invigilated online exam where we could apply our knowledge with practical questions and not just try to memorize the theory.

- The work is very interesting.

- The programming on the microcontroller was super fun. Seeing my programming come to life on hardware was amazing to see and would do it again.
  - The practicality
  - The f2f sessions.
  - Learning to apply my knowledge practically.
  - The lectures were very good, and I really enjoyed our lecturer
  - It is just an enjoyable module. The practical's take extremely long but the reward for understanding and self-study is all worth it. My marks reflect the amount of work I put in which in return motivates me to continue working. Amazing stuff.
  - This module is very practical.
  - in person practicals
  - Seeing a program work in a practical.
  - Engaging and interesting content. Presented in a fun and accessible way.
  - Using and understanding the microcontroller.
  - I really enjoy working with the emulator and development board.
  -
- The encouragement to tinker and the fact that most problems could be solved in different ways
- Creating programs and sprites for the emulator, really interesting how much work has been put into the stm32 in order to ease programming, especially the older generation which had to write to memory manually in order to change registers and stuff.
  - I enjoy programming and integrating code with hardware
  - The relevance of the module is very apparent. The method of assessment is the best I have come across so far.
  - The videos are really well presented.
  - All practical sessions

## Watter aspekte van hierdie module of modulegedeelte moet verbeter?

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

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- Everything was fine.
- 'n Teams meeting een keer 'n week vir die mense se vrae oor die inhoud van die werk, in plaas van slegs geleentheid tydens die praktiese periode.
- Ek is tevrede met die module so ver.
- Meer tyd om weeklikse praktika/tutoriale suksesvol te kan voltooi.
- Oor die algemeen is dit 'n goed- gestruktureerde module, wat deur bevoegde dosente aangebied word. Ek kan wel getuig uit my persoonlike ervaring dat ek gaan moet leer om baie goed te beplan, want die werk is nie maklik nie en die tyd kan min raak in 'n week.
- Ek voel dat die tutorialle is baie moeilik en ons word in die diep kant van die see ingegooi.
- Die IDE wat aan ons verskaf word kort verbetering. Die program het waarskynke keure op noodsaaklike tye my code waarmee ek besig was nie kon compile en of run nie omdat hy n syntax error gevind het in die auto generated code. Dit het waarskynke keure my punte gekos omdat ek nie my .bin fine kon upload nie.
- Make it easier ??
- Perhaps more available demi's during the practical sessions. Or another practical session at a different time, so that the classes are smaller and the demi's are more available. The time of the lectures every week also exceed the normal time of what in-person lectures would be. I would suggest shorter, more focused lectures.
- Doing more examples of the topics.
- I feel the tests and exams are sometimes difficult to do in the given time period.
- Resources must be available from computer systems 214 (per-requisite) for students.
- More example videos of the content being applied would be greatly appreciated as it helps with understanding what was learnt.
- Mechatronic students aren't as proficient in programming as the Electrical students so may have found that the work was covered very quickly.
- More examples or exercises to do to get more practice
- Everything was well presented to us.
- Examples of use in industry
- Spend more time on the ARM coding, to better understand how it works
- Mode of delivery of the course material needs to have a lot more examples which will help the students become better prepared for practicals and assessments.
- NB!!!!!!!!!!!! PLEASEEEE can you open the practicals earlier. I have a lot of quizzes and assignments due on thursday and friday and it would be really helpful if you could open the practical earlier so that we can work on it beforehand.
- i usually take 2hrs or more to finish one lecture video, so maybe if the length can be shortened, too much information in a short period
- More examples on the lecture videos
- 
- More emphasis on how to use the text book and not get lost in the details the book has, and how to do questions. Having more mini questions similar to the review quizzes to give people more exposure to the type of questions and alternative places to apply the acquired knowledge
- Found it difficult to sit through the long videos that were given.
- Not have the practical on the same day as a other module...
- The STM program can be a bit tough to wrestle with sometimes. I understand this may not be logistically possible, but it would be quite nice to understand the program and the dev board even better, so that it's less intimidating and/or frustrating.
- The setting up of the IDE before the A1 proved to be very difficult and challenging

- Currently, the practicals take a very large amount of time to finish, since it has a couple of trial-and-error type questions. Although it is beneficial in the long run, it does cause a lot of stress to try and finish the practical while doing other module's tuts as well.
- The lecture videos were quite long
- They should let us keep the microcontrollers
- There is an incredibly large amount of theory that is hard to cover in the limited time.
- Practical could be uploaded earlier.
- Online assessments are too long.
- None
- The amount of work Required.
- interactions. Examples were shown but not always understood. More programming examples need to be given.
- More help with the downloading and installation of STM cube since almost all the students struggles with this and a lot of time was wasted.
- Sometime after going through all the weeks lectures i would open the weeks tut and still have no idea what the hell im looking at.
- 

The tutorials take extremely long to do, so maybe some more examples that are similar to the tutorials

- May be a good idea to break up videos into their respective topics, instead of putting that all in one video.
- F2F lectures should be held to explain and elaborate on content. In conjunction with this recommendation, lecture videos should be shortened to highlight only important content for exams and major assessments.
- the practicals could have been uploaded sooner
- Honestly this is the best presented module I have ever taken.
- Sometimes the way the theory is communicated is unclear and confusing.
- None that I can think off
- The lectures where very long sometimes unnecessarily. A bit more focus on the practical in the lectures would help.
- arm programming, especially drawing sprites on the screen using `asm()`. otherwise everything else is fine for me so far, the module is just fundamentally challenging.
- The tutorials and the lecture lengths are far too long for each week
- Nothing on my side, because I stopped listening to what people say about the module and began to work as hard as I used to.
- More examples of coding exercises practise could be helpful.
- More examples
- A little bit more time to work on the practical would be great.
- Possibly more time to fully comprehend the work. It is quite a dense subject and there end up being too much to cover fully for exams.
- More examples
- A lot of content, but it was really presented well. Some of the demi's in the practical sessions were not prepared and does not help well at all! I relied on one of the demi's who I knew was really good as well as the lecturer!
- More examples of demo projects.
- Better structured notes.
- No suggestions.
- I feel like the length of the videos are too long. And that the content of the lectures aren't always relevant to what is being done in the pracs.
- Don't know
- More examples.



- 

It feels like a lot of the tutorials involve you to find your own way which I guess is the point. but a lot of the time I got stuck and had no idea where to even begin with the problems.

- Not specific to this subject, but if the test are in person I expect the classes to be in person as well. I will prefer to have classes that will enable me to ask questions immediately when the lecturer has lost me with the work.
- None that concerns me.

- 

I feel as if some of the practical questions are extremely time consuming. Not necessarily difficult but figuring out how to start a question is tough. It's the small things.

- Feedback on practicals. Like getting practical marks back before the A1.

- 

It felt like some of the work required for the practical was left out of that weeks lectures and as a result it was not possible to complete or even attempt some of the practical problems.

- I think the practical sessions are slightly over crowded.
- Nothing. Rensu is Great!

## **Wat was die beste aspekte van die leergeleenthede?**

### ***What were the best aspects of the learning opportunities?***

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- Gee 'n eerste realistiese idee van hoe sagteware en hardeware integreer
- Die aanlyn lesings gee 'n student vryheid om te beplan wanneer hy/sy die klasse wil bywoon.
- Die aanlyn videos saam met die in persoon prakties is 'n baie goeie kombinasie. Veral vir 'n module waarmee jy in elkgeval op 'n rekenaar werk.
- Demis were very helpful
- die vinnige vraag beantwoording.
- Ek het die in persoon sessies wat ek bygewoon baie geniet.
- Praktiese in te gaan klas toe en beter te verstaan.
- Ondersteuning in Pratika/Tutoriale.
- Die verduidelikings en memo-besprekings het my baie gehelp.
- No comment
- Die praktiese was baie helpvol om die werk te verstaan, aangesien dit stadig op mekaar bou, sonder enige groot spronge in moeilikheidsgraad
- Baie pasievol oor die vak en gee baie voorbeelde om jou te help met die tut toetse.
- The ability of dr theart to communicate and help us with the pracs
- The in-person practicals. The online video lectures (albeit a bit long) are also done very well - the extra effort of the green screen is appreciated and the lecturer always presents the new information in a well structured way.
- Being able to interact with demis, lecturer, and fellow students.
- Building a game !!
- practical engagement
- The ability to ask f2f questions in the practical sessions.
- none
- The in person practicals.
- Unsure
- That it's online as well, it gives you the opportunity to go back and rewatch the lectures.
- In-person practicals with assistance from the lecturer
- The ability to rewatch the online lectures. They were quite helpful incase I didn't get something the first time around.
- the lecture could explain well
- 

The lecturer always replied to emails, being in the f2f practicals helped us gain more knowledge as we could interact with other students and the lecturer was there to explain

- The videos give the benefit of being able to have a lecture all over again. Being bale to use the emulator and it working bring about a great feeling of accomplishments.
- The willingness to assist students with the practical
- The in-person pracs!!
- Module is very interesting
- The lecturer is clearly passionate about the work he is teaching and is always helpful when students have questions. He puts a lot of time and effort into getting his students to understand the work, which is immensely appreciated.
- For anyone who enjoys the workings of computers, this explains it very much in detail
- The lecturer was top-tier.
- They were of large benefit to my learning.
- Insightful
- Learning about embedded systems
- One on one help in practicals

- How interesting the module is.
- The memo videos explaining problem solutions thoroughly.
- 

You really got a feeling that the lecturer is enthusiastic about the work and find what he is teaching interesting as well. The slides are very well done and help a lot to work along side.

- Accessible
- The practical sessions were available F2F.
- The F2F practical sessions was extremely helpful.
- Attending the F2F tutorial sessions.
- Interesting, challenging and well put together.
- Tuts
- Able to get help and talk to someone about the work
- The tutorial session where very thorough
- Always willing to help
- the availability of information and intrigue of the dev board
- We get to see how the computer systems relate to the outside world and learning how many computer devices work from basic level.
- Tuts
- On my side, a lot has been unlocked (i.e creativity, having to think critical on analyzing and tackling challenging problems and etc... ) which makes me different from the rest.
- 

There were people on hand willing to help and clarify any uncertainty following the lectures.

- feedback
- The ability of the lecturer to explain the work in a easy to follow way really helped a lot.
- Understanding the principles of how computers operate.
- I tell say when I find a enjoyable part
- 

face 2 face practicals helped A LOT! Could ask direct questions and interact with the lecturer directly

- Interactivity
- Learning to read and analyze manuals.
- A more in depth understanding of Computer systems.
- &gt; The excellent lecture videos.
- The practicals
- The physical microcontroller and emulator to see visually what you are doing. Also the memos videos which helped a lot with preparing for the A1.
- To ask about the work I don't understand.
- The help provided by the Demis was immense and I enjoyed it thoroughly
- They were practical
- To be able to ask the lecturer questions during the tut session.
- The interactive practical sessions.
- If I missed something the first time round I could go back and review it.
- 

I attended every practical session available to us. It helped an immense amount. I would do the practical the day before and any queries/questions I had, I could bring to the Demis. Doc Theart would also make an appearance which assists a lot of students.

- Hands-on experience with the development board.
- Receiving help from demies.
- Engaging and Challenging
- Increasing my knowledge of computers and sub systems.

- The learning opportunities were hands on in person and tested your knowledge in a way that was similar to larger assessments.
- They were challenging and engaging
- Practical memo videos
- Opportunity to take the lecture material and translate it immediately into something in the real world.
- The pracs really help us understand the concepts using examples.
- The practical period

## **Watter aspekte van die leergeleenthede moet verbeter word?**

### ***What aspects of the learning opportunities need to be improved?***

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- Alhoewel aalyn klasse gerieflik is, is dit vir my baie meer effektief om in persoon klas te hê. Die aanlyn laat mens maklik fokus verloor en om aanhoudend op die skerm te kyk maak my oë seer.
- Dalk meer demis in die prakties.
- Labs computers need to be in a better state.
- Meer geleentheid vir vraag en antwoord.
- Ek is tevrede met die leergeleenthede.
- Verkies in persoon klasse e ek dink ek sal dan vinniger beter verstaan.
- Meer inligting/verduidelikings in lesingsnotas self.
- Die lesings kan vreeslik lank raak, maar ek verstaan en besef dat mens deur al die werk moet kom in die lesings, so dit is nie altyd moontlik om die tyd te verkort nie.
- Ek dink ons moet terug gaan na f2f klasse toe sodat ek beter die inhoud van die werk kan verstaan en n vraag kan vrae wanneer ook al ek wil
- Geen
- Die video lesings is baie lank en maak dit moeilik om op datum te bly en nog te leer vir die vak ook elke week.
- More help available for struggling students.
- Not applicable.
- The exams can be more theoretical.
- It should not be assumed that all students have had the same exposure to the technology and content taught in the module
- 
- A breakdown of the thought process when attempting a question. Specifically for the coding questions.
- More qualified Demis
- 
- Maybe some more examples or material that could help us understand better . Some more exercise or problems to do besides the practical..
- provision of a revision lecturer weekly so that students do not fall too far behind when it comes to understanding the course material
- 
- Not sure. I would appreciate putting more theory in the exams. It makes passing a lot easier :(
- the amount of information put in one lecture.
- There should be more Demi's in the practicals
- More time to complete tutorials, to cater for the high work load of the week required to be done in a typical engineering student's week.
- 
- Online Videos should be little shorter, hard to keep attention throughout three 1hour long videos.
- Not having the practical on the same days as other modules' practicals/tuto
- 
- The lectures are quite densely packed with information, which can be tough to internalize well... I often fell when I get to the prac I've almost forgotten everything I've learnt in the lectures. Although I don't think more/longer lectures are the answer... it may just be a feature of this module..
- 
- 
- The formative quizzes are a lot easier than the assessments and practicals and give one a false sense of understanding in the work. If the quizzes could be more closely matched to practicals and what is expected of us in the assessments it would be more helpful.
- More information before the tuts.

- I am satisfied
- Allowing more students to attend pracs.
- More examples. Assessments however needs more theory in as well.
- Can't think of any.
- 

Sometimes there is key info only in the videos that are not in the slides (some of the programming stuff comes to mind) so when you need it in the tut you need to scan through alot of lecture videos. (This year has been alot better with the embedded videos in the tut)

- Lecture videos
- F2F lectures should be held to explain and elaborate on content. In conjunction with this recommendation, lecture videos should be shortened to highlight only important content for exams and major assessments.
- Not much, would prefer more in person work but the nature of the module means that it is not required to get the full experience.
- Maybe more feedback on the A1
- arm programming while writing contents/drawing to emulator screen.
- Number of demis in tuts
- 

I think this module has been assessed by professionalist so we that, I don't think there is something to be improved on it based to how it shaped us as students just that we are too lazy, and complain a lot.

- Having more people at practical could help seeing as we are such a big group. Then there would be less waiting for help.
- More demis in tutorial sessions
- Possibly longer tut/prac periods to be able to get through and understand all the work
- More examples and not giving us a practical the day before an exam
- Demi's who are not well prepared and does not have the skill of explaining well.
- More time on how to use or read manuals.
- The lecture videos are rather long and quite time consuming.
- I feel it's fair
- Can't think of any at the moment.
- 

I found that there was very little support for Mac users in this module. Particularly for the emulator. This made it very difficult to work more on my own from home as I only have a Mac

- In person.
- None, that I am concerned with.
- 

This semester felt very rushed and did not give enough time for new knowledge to be absorbed.

- I think if the practicals were less crowded the lecturer and Demi's wouldn't be so swamped with questions.
- slightly shorter prac on a friday lol
- no comment
- 

The more physical examples the better(using the development board) but this is extremely minor.

- not sure