

## MODULE REPORT

This semester is affected by a public health crisis. Colleagues are given the option not to submit this report for performance appraisal, MTAR, and P&T

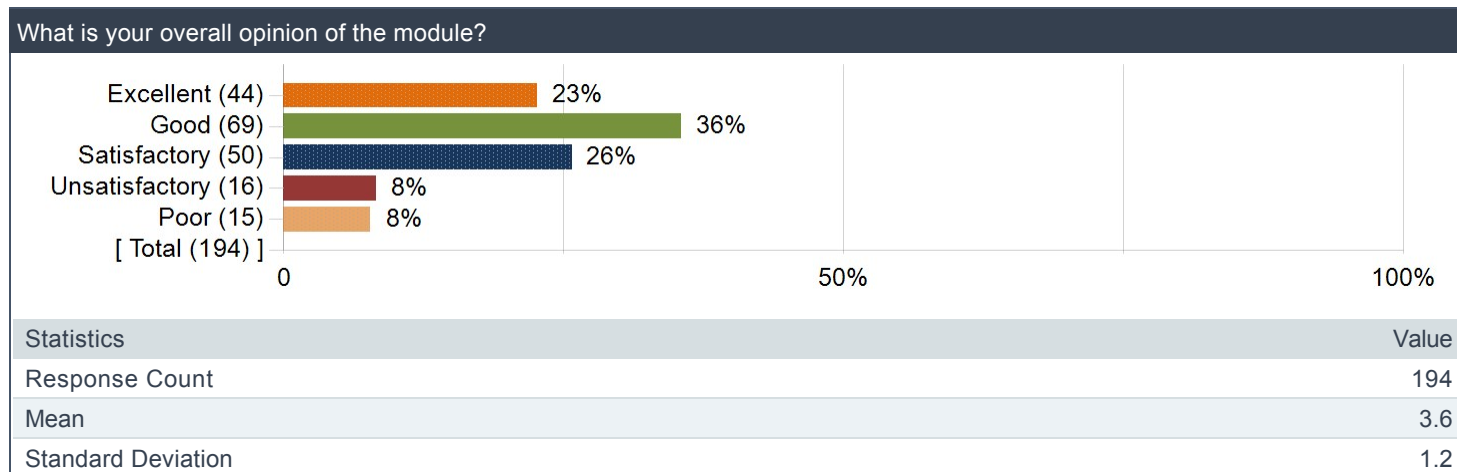
<b>Module</b>	CS1010S - PROGRAMMING METHODOLOGY
<b>Academic Year/Sem</b>	2019/2020 - Sem 2
<b>Department</b>	COMPUTER SCIENCE
<b>Faculty</b>	SCHOOL OF COMPUTING

Note: Class Size = Invited; Response Size = Responded; Response Rate = Response Ratio

Raters	Student
Responded	195
Invited	363
Response Ratio	54%

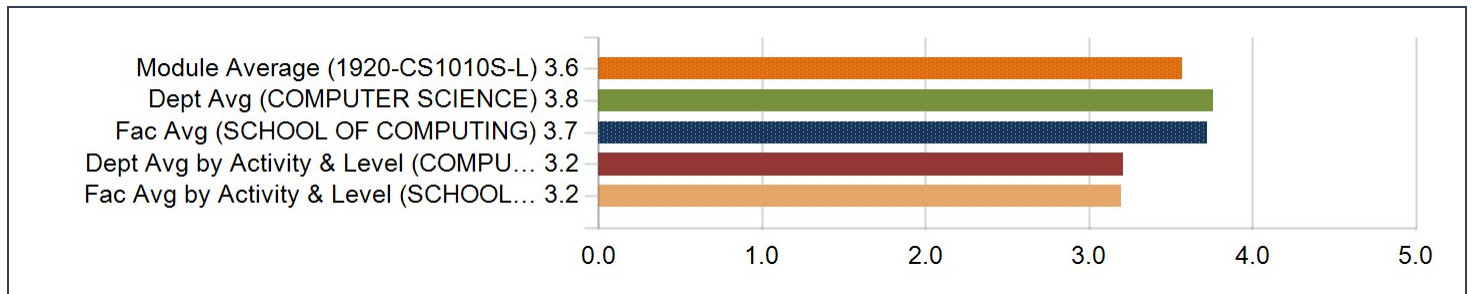
### 1. Overall opinion of the module

Distribution of Responses



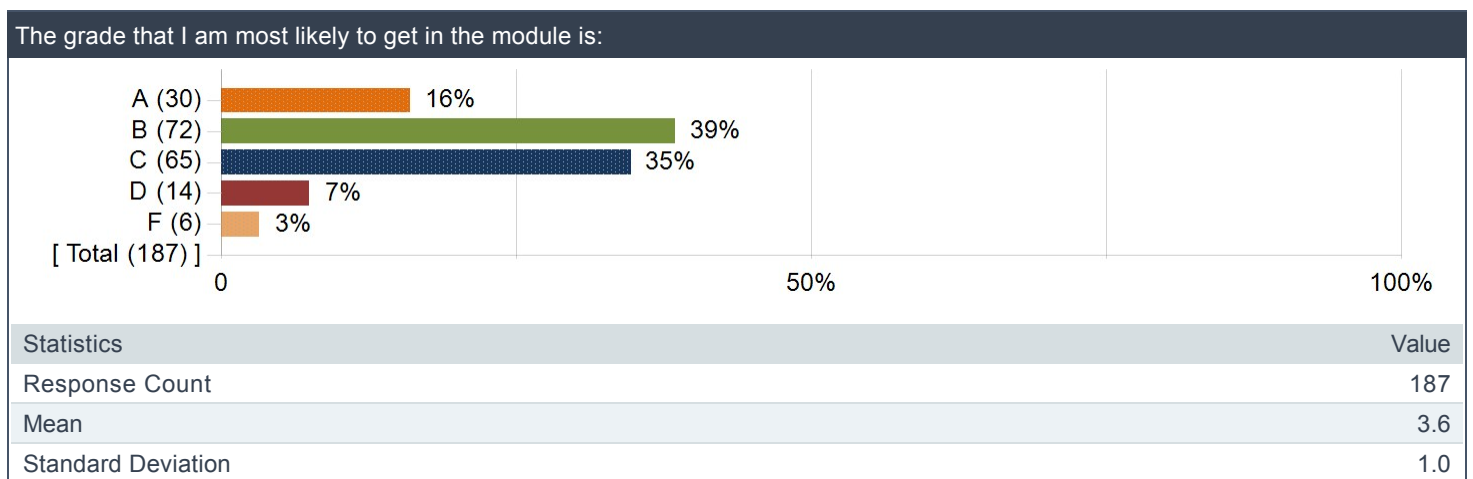
## Rating Scores

Question	Module Average (1920-CS1010S-L)		Dept Avg (COMPUTER SCIENCE)		Fac Avg (SCHOOL OF COMPUTING)		Dept Avg by Activity & Level (COMPUTER SCIENCE-LECTURE (Level 1000))		Fac Avg by Activity & Level (SCHOOL OF COMPUTING-LECTURE (Level 1000))	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
What is your overall opinion of the module?	3.6	1.2	3.8	1.0	3.7	1.0	3.2	1.2	3.2	1.2



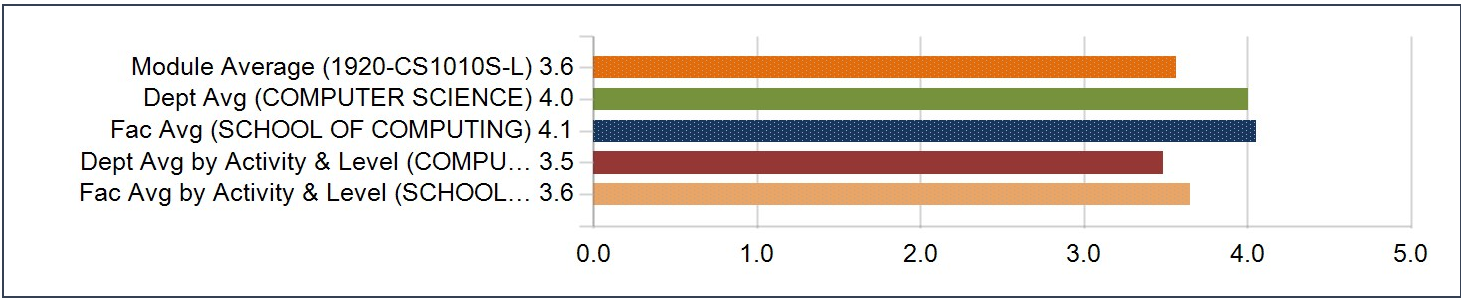
## 2. Expected Grade

### Distribution of Responses



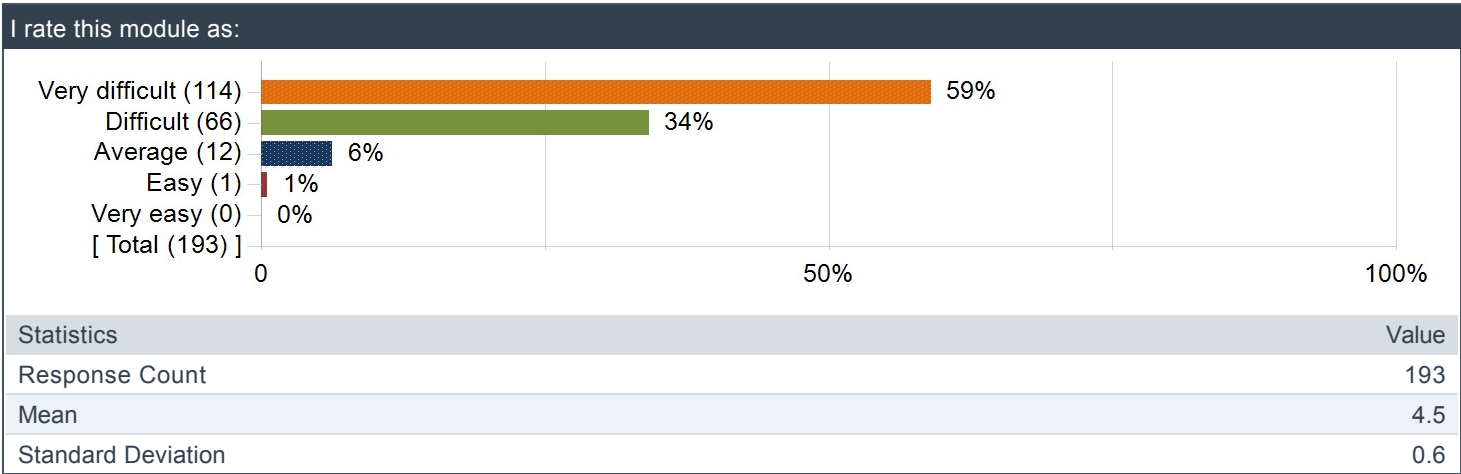
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	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
The grade that I am most likely to get in the module is:	3.6	1.0	4.0	0.8	4.1	0.8	3.5	1.0	3.6	1.0



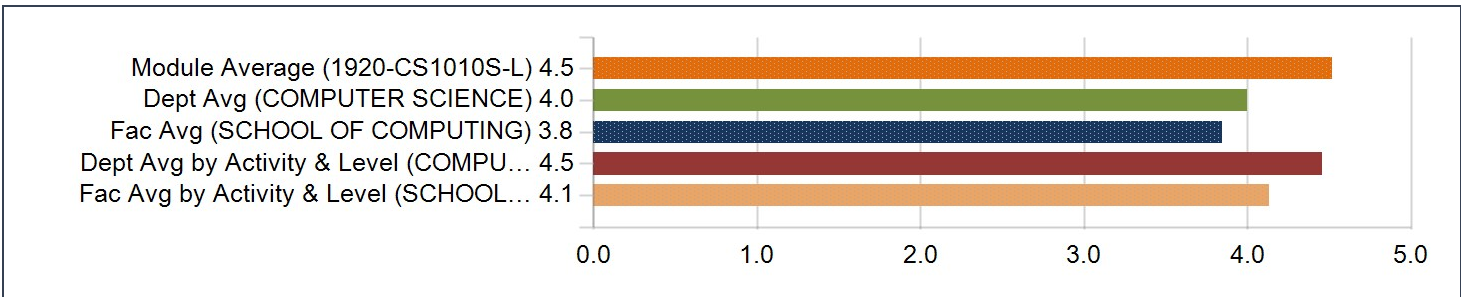
### 3. Difficulty Level of the module

Distribution of Responses



Rating Scores

Question	Module Average (1920-CS1010S-L)		Dept Avg (COMPUTER SCIENCE)		Fac Avg (SCHOOL OF COMPUTING)		Dept Avg by Activity & Level (COMPUTER SCIENCE-LECTURE (Level 1000))		Fac Avg by Activity & Level (SCHOOL OF COMPUTING-LECTURE (Level 1000))	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
I rate this module as:	4.5	0.6	4.0	0.8	3.8	0.8	4.5	0.7	4.1	0.9



### WHAT I LIKE / DISLIKE ABOUT THE MODULE

## What I liked about the module:

Comments
coursemology gamification platform
This module is really well structured. I was struggling really badly at the start and even until now but the missions and tutorials that I did every week really enhanced my understanding of the topics that I was taught. I also liked how there is an alternative assessment catered towards weaker students so I felt more reassured
Coursemology is brilliant!
provided new insight
You are always learning
It is very useful
Relevant to today's world
The applications of programming to real life and learning how programmers approach problem solving
It's applicable to real life. rewarding when u get the concepts
The content and the way it is implemented forces u to think differently and approach the problem proposed in a different way which is very applicable in today's working world and is thus beneficial. Python as a coding language is also easier to learn which makes the concepts easier to grasp.
The problem sets in tutorials and missions etc were interesting, and some simulated real-life problems (such as IPPT tests and train break downs)
computational thinking
i liked learning about computational thinking/wishful thinking
interesting, a new experience. challenging and fun.
It allows me to learn about computing.
honestly very interesting module, seems like I will enjoy myself as well
It is different from my normal classes. I enjoyed doing the coding missions on coursemology.
The game-style of assignments
challenging
Interesting to learn how to code
very interesting assignments
It provides good knowledge about Python.
NA
It is a very useful and applicable module to learn to use in real-life and really wakes some part of my brain that I have never used before. Coding requires a very different way of thinking that I hardly had to do before.
Module focused on computational thinking as opposed to just teaching us the syntax of a particular language. This module really challenged me to reinvent 21 years of thinking and look at problems in a whole different perspective. Much greater appreciation for the computational way of solving problems.
It is very practical and engaging
All things considered, the mod was very hands-on and a nice change from the rest of the more technical mods
-
The missions were quite fun to work on.
teaches programming methodology and how to think like a programmer
fun concept through coursemology
Interesting concept and the gamification platform helped encourage me to complete weekly tasks that I probably won't do otherwise. I feel like I learnt a lot of new things from this module.
Gives me a sense of what coding is like.
Very useful skillset, good implementation through Coursemology, video resources to cover all the content available, ability to learn ahead of time if you are a fast student.
This module really open my eyes to the world of programming and the power behind it in the real world. Coursemology also encourages constant effort and I feel that is good and helpful for students, a push they seldom give themselves.
interesting problems

Comments
Coursemology is a fun platform to do missions on
Very interesting, Very practical
the systematic thinking and being able to understand code
Very different from other modules, interesting
nothing
Good intro for coding Assignments in Mission style
It is easily accessible, and you get to see the fruits of your labor from the result of your code
Interesting approach to coding. Quite all rounded.
It is a challenging and new area for me but it really gets you to think.
Interesting
I love the challenge but I feel like I do not have enough time to do all the trainings and missions. And I was not able to keep up. But I love coding and even though it was very difficult it hasnt dampened my passion for it.
Coding. Figuring out the solutions to the problems gave a sense of satisfaction, especially when you see the code finally works.
pragmatic in today society.
Broad overview of the basics of computing. Generally covers a wide range without sacrificing rigour
The assignments (missions) and the whole idea of coursemology are pretty fun and interactive
thought stimulating
Learnt basic coding that has helped me in other modules and gain more appreciation for coding/ computer science.
The gamified experience
I liked that it encourages us to take up a different approach to learning. I liked that it caters to different types of learners, eg. if I didnt like to go for physical classes, there are online vids that I can fall back on.
The whole gamifying of the module
I started to like coding a lot, and I wouldn't give up on a question straight away, so I would spend hours on it. I also liked how I learned to think a bit more logically, considering how I used to think very naively and expected things to just plop from the sky, but this mod taught me that a lot of things require time and effort.
90% of the missions were interesting in content and very engaging and motivating in their design. Lectures as well as recitations excellent.
teaches us a new way of thinking
Interesting; dedicated team of teaching staff (lecturers, tutors, coordinators)
Interesting
I like coursemolgy, very fun.
Interesting and applicable, coding is very useful in our modern society, coursemology, the missions are challenging but fun.
It was new and interesting, and I can see how it is relevant to real life.
It really pushed me to my limits. I am someone who loves a good challenge, so having to start learning CS from scratch was a very exciting prospect for me. Also, I really enjoyed the gamification process in this module. For beginners like me, it made the whole learning process really enjoyable and I appreciate it.
concepts were explained in easy to understand terms.
I enjoy the problem solving aspect of coding and can really see how the things I learned here can be applied in real life.
learnt some python
prof leong, and also the content quite fun la, but maybe it is cos of the prof that made it fun
past year papers were provided for practice. alot of resources for self practice and self learning
this module is so far the only module i take where the teaching staff provide so much student support – i really feel like whenever i have a question, i dont need to worry because help is so easily available. recitation is amazing, lecturer is so approachable, and i can get my doubts clarified immediately. "consistency is key" is something we should try to achieve for every module we take, but the teaching staff for this module made it especially easy for us to achieve this. I really hope the teaching team sees this, and I am very very grateful for their help over this semester. Even though covid happened, the student support did not change. I am so so thankful.
It is practical
Learning a very useful skill, and its very comprehensive, and very intense so we learn a lot.

Comments
Gamification, leaderboard
Nothing
I believe I have learned an essential skill that would be useful in the future.
useful skill, and they provide weaker students like me with the possibility to have an extended time to learn
Made me think logically
Intro to python
Challenging and fun. Consistent assignments to help us get on track. Past year papers are made open to us so that we can practice by ourselves
Learning certain python skills
Understanding how programming works is really a very important skill in the future. It would help me a lot.
novel
n/a
It was challenging.
I like that I am able to learn the fundamentals of programming. I also thoroughly enjoy learning through the Coursemology platform which adds an element of gaming to the various missions and practices.
Exposed python and coding to me
Good content
It helps to challenge the mind due to all the problem-solving questions
Challenging

### What I did not like about the module:

Comments
overly difficult missions that were not built on content taught in lecture
The deadlines between each assignment was really tight. I felt that I just neglected all my other modules just to understand and the materials taught
May feel a little messy at times.
it is too difficult, and it is not suited for everyone yet NUS requires all students to take it. it has caused me some distress when trying to code and pondering about the questions that i do not have time for other modules
Its too ambitious. It should be more levelled. would recommend an initial assessment before entering the module. If the student seems out of touch or unfamiliar with the module, remind them again what they are signing up for.
The exams test too little at such a high percentage
Extremely content heavy
It is too challenging for a less intelligent student like me. I have to put in a lot of hard work to make up for my lack of ability. It is also quite stressful. While this experience has helped me learn a lot, it has also compromised the ability to enjoy and appreciate programming as a field.
I still think it's a very content-heavy module for a introductory coding mod. Some concepts are glossed over but tested heavily and in-depth
Overall i am very disappointed with the way the module is organised during this situation. I am aware that COVID-19 has made the situation very difficult for everyone involved but in other mods, the professors make an effort to be as transparent as possible about the procedure that is going to take place for each of their assessments. However, i do not see this in CS1010S. The professors instead are very reactive to the situation and are instead complaining about how difficult it is to make these necessary changes to the module. They claim that the assessments are very difficult to go online and yet the world of code works on a computer, nobody does coding on paper which is a ridiculous form of assessment. This entire period even before the official circuit breaker, the professor even proposed to delay the assessment to as late as 19 June in an attempt to do things their way and find enough venues when they do not realise how this affects the students as the exam would then be in the summer break. Even claiming that PE or finals may be cancelled and just moving the percentages around does not help with the situation. I am astounded at how the professors do not realise how stressful this is for the students as the grades affect our futures and we generally worked very hard until this point to do the best we can do. I hope that the professors act more on this and attempts to bring some clarity to the situation instead of just acting as though there is no urgency. Every bit of information given earlier helps us to prepare for the exams and help us have a better chance of doing better in them. The reply that Prof Ben Leong put in NUS Whispers shows how unprofessional the department can be in responding to the students, the student made a valid claim as by retaining the same

Comments
format from past years, it is easier to prepare for the exams and thus some of these apparent but not even confirmed changes also add more unnecessary stress. I hope the professors get their act together or else all the students are going to continue suffering through this and i hope the professors are more prepared for a potential future situation for future semesters.
The module is very intense and I would say that the difficulty level is too high and there are many barriers for someone who are newbies/beginners at coding. For an introductory level module (1k), this module is very unmanageable. There are many submissions required of us per week (tutorials, recitations, missions, lecture training). The module is very taxing workload wise, and while consistent work is important, there are too many tasks to fulfil each week. Our hard work on coursemology also only adds up to 25% of our grades, this rather pales in comparison to the hard work dedicated to completing the tasks in coursemology.
deadlines for the missions were very close together
challenging but too challenging. so. much. work. too much work.
The pace of the module is too fast. The concepts are hard to digest and catch up for someone without computing background. It is a module that requires a lot of time and effort than expected.
Spent too much time on other mods, didnt have time to study much for this mod and lost track of deadlines :(
I did not like how this module's workload was massive compared to the rest of my classes but only worth 4MCs at the end. Should be at least 6 MCs for the amount of work put into the module.
The workload is rather heavy and taking up more time compared to other modules
Its rigorous nature, many concepts are crammed into this module in a short period of time
too much independent learning. It is not a bad thing but we can get lost easily.
Very challenging module, not that easy to pick up for students with no prior background in coding
nil
It is too difficult. It obviously does not care about how well students can grasp concepts, as there are simply too many new programming stuff to learn in 13 weeks. As such, without even mastering a certain concept, we are forced to move on to the next and this leaves a huge gap in understanding every single thing in this module.
This sem practical exam was too tough
There is way too much workload for this module. The lecture uploaded on coursemology is recycled from another cs module and did not flow with the lecture slides uploaded for this module. The assessments are not decisively arranged and until now students are still unsure of the format and dates of the exams.
It is a very steep learning curve for beginners at coding.
Terribly difficult module for students who have no background in coding. This module seriously needs to reconsider the amount of workload students are expected to complete each week (missions, sidequests, lecture exercises, tutorials, recitation) and the amount of time students need to spend on each of these assignments. Definitely not proportional to a 4MC workload, plus it seems like most of the material won't even be reviewed by tutors (e.g. missions are never reviewed at all even though it's so important since it contains so many inter-related concepts and closely resembles the exam style). It'll be a whole lot more effective if we can cut down on some of the workload (e.g. recitations/lecture exercises) and focus on improving a student's computational skills through a small number of TARGETTED assignments. (Quality > Quantity).
Given that the module has been around for so many years and it seems like it's always a 'killer mod' every year, I think for the benefit of getting students to become more interested in computational thinking as we transit into a more tech-dependent world, it'll be good to review some of the pre-existing pedagogies and curriculum structures. As with anything else in life, there will always be ways we can do better, and we can always strive to attain a win-win solution.
The level of difficulty of the module is too high for a lot of the students.
As mentioned previously, more timely updates (even if the updates just inform us that the profs are still trying to work things out) would be nice.
With regards to the mod itself, not much else
Pacing too fast
-
too difficult, steep learning curve, not enough help provided
Nil
it made me feel dumb
very competititve
Workload is too high at times and I often feel lost, but after going through the entire module, I think the workload is alright since I do not have to get 100% for every single assignment to make it to the required level. The jump of difficulty level from lecture to

## Comments

assignment is too large sometimes.

See previous page. This experience has completely sapped whatever passion I had. As a student from a certain major who can choose how many CS modules I will do, I will definitely avoid CS modules for now. I am not sure that the goal(s) of an educator have been met. Also, I did not appreciate Prof Ben's comments immediately assuming we were lazy if we performed worse than previous batches. I hope something can be done to quell this, especially for future semesters, to protect the students.

It's hard to come up with codes, if you're stuck then you'll be stuck there for really long time. My tutor is just not really responding to my questions... During first tutorial my tutor said he preferred to be contacted through gmail over coursemology and outlook. At first he replied me really fast, but starting from mission 7 onwards, I can't reach him. He rarely reply to my comments on coursemology and gmail. I turned to outlook and he said the emails i sent to him through gmail was buried????? Ever since I receive no reply form him for Mission 7, I have no choice but to look help from other tutor such as Ze Qun. I attend his tutorials too, which is really more effective for my understanding. And zequn replies to every question i asked, not giving me the answer, but guiding me instead. He is also more well prepared for tutorials, by going through some of the key concepts. Samuel just went through answers, and somehow the people in my class are good at coding, they all can do the tutorial questions (but not me). It's so sad that I can't swap tutorial class...

Heavy workload at first.

I feel this module is really heavy for the absolute beginner and would jeopardise students' modules, especially those who overloaded. Of course it is the job of students to understand and be prepared for a heightened workload when overloading but I consistently found myself spending at least twice the number of hours on missions and trainings compared to any of my other modules. It is as if CS1010s is 2 modules for the price of 1. I do not think this is the best way to execute a heavy module like this. I do feel the content is very helpful and should not be reduce, it's at the sweet spot. I think that is why the module has an optional extension option but I think it'd even be fitting to extended to a year if they added 20% more content. Perhaps it would be good to quantify and warn incoming students of the average number of hours they spend on CS compared to other modules so they don't overload because I never expected this level of work for 1 module.

workload too heavy

The learning curve is way too steep for beginners

Too many assignments, not enough guidance when it comes to new concepts

the demands of the module are a little too high.

nothing

this module is very tough

High commitment (though understandable)

The difficulty curve was very steep through out the module and it felt like a little rush.

Heavy heavy workload. Very vague explanations

Hard to switch the way I think in such a short amount of time but it is what it is.

Nil

The workload is too much. There are too many deadlines at the same time, it really did a number on my chronic anxiety

Coding. Debugging the code was a chore, especially when it breaks somewhere you do not know

It is difficult.

Missions open up too slow even though it was adjusted to how fast an individual submitted their work. lectures/tutorial/mission should open up faster especially during the first few weeks of the sem (e.g. week 1–4) when the workload for all modules are relatively low so students can quickly get to the hard part of CS1010S and not "die" in the middle of the sem

Unfortunately, even though I submitted assignments early in the beginning, the missions only open a few days before the actual opening which defeats the purpose since it was too slow in the beginning. By the time the adaptive learning actually started to work (e.g. open 1 week before actual opening date) it was already week 6–7 when one has to juggle CS1010S and other assignments which kind of defeats the purpose.

The workload can be pretty heavy

workload

Content is too difficult at times, especially for someone who has close to 0 background knowledge on coding.

The dead lines and the heavy content with the fast pace

workload may be a little too heavy

nothing.

A lot of work and the pace is fast

Too fast



Comments
While I appreciate the structure of the module, this module is really very time consuming. I think maybe one topic could be removed so we have more time to solidify our learning.
10% of the missions and tutorials in general a bit boring.
very heavy workload
Module is too intensive for a 4MCs equivalent
Incredibly challenging
Very poor planning and inflexible, stuck to having a wait-and-see approach to handling the examinations giving students 0 time to adapt to new schedules.
They probably heard it alot of times, but there is really too much content and work just for 1 module. The number of missions due per week is intense, alongside lecture and tutorial. It took the fun out of learning for me eventually :(
With the heavy workload, it can be quite easy to fall behind if one is not careful, and hard to catch up again.
I felt very alone and it's difficult to do without friends taking it at the same time. It's difficult for total beginners at coding as well.
too fast paced for what is a level 1000 module, hence I found it difficult to juggle my time between this and other mods, but I understand this is a personal problem
Learning curve is quite steep, and sometimes no amount of practice can prepare you for exams.
too much is crammed into one 1k module. should reevaluate the difficulty of this module instead of putting down so many students, we have tried our very best but this module hardly/never reflects the effort.
my brain cells die every week, every lecture, every mission, every side quest
there were alot of gaps in content that the students need to fill on their own. insufficient time for exam
–
Please give more EXP for trainings!
High workload
Thrown off the deep end from the get-go. But I also understand that's honestly how programming goes, usually learning through individual experience and practice. The missions had a very steep learning curve though. Maybe a pre-mission before the runes to get people's brains running?
Everything
–
very steep learning curve
tedious
–Lack of guide step by step, instead of running through missions etc/ more should be emphasizing on the basics like if/for loops, object oriented programming technniques/ strategies for excel manipulation how to manipulate cell by cell. Non-experience programmers this is really difficult. way too hard for a level 1k mod
It is extremely time consuming and difficult. Spending so long on the missions but I sometimes do not even know how to start solving the problem. Lecturers are unapproachable as they seem to lack patience in explaining simple concepts and expect us to find the answers ourselves.
The module took a large amount of time and was comparably more demanding than other modules in general. Although I understood that all the current settings ( coursemology, missions, training, recitations, tutorials...) are very effective in helping me understanding and doing well in CS, it gave me quite a bit of stress at the start because it was really hard at the start ( to me as a newbie)
workload
left too many gaps in the teaching material
Really too many assignments where the time pressure and many deadlines takes the pleasure out of learning, when all I wanted to do was to learn how to code, in a less stressful way as a useful skill to have.
Sometimes too challenging LOL
Can be quite time consuming.
Too many things to do for a module
None
It can be time-consuming to do so much work especially for the weaker students and hence might really be worth more than 4 MCs
Crazy weekly workload that felt like 8MCs

