## University of Michigan Winter 2020 Instructor Report With Comments EECS 280-003: Prog&Data Struct Nicole Hamilton

66 out of 147 students responded to this evaluation.

## Responses to University-wide questions about the course:

	SA	A	N	D	SD	N/A	Your Median	Univ- wide Median	School/College Median
This course advanced my understanding of the subject matter. (Q1631)	34	26	5	0	0	0	4.5	4.5	4.5
My interest in the subject has increased because of this course. (Q1632)	31	25	6	2	1	0	4.4	4.2	4.1
I knew what was expected of me in this course.(Q1633)	33	25	5	1	0	0	4.5	4.5	4.4
Overall, this was an excellent course.(Q1)	31	27	6	0	1	0	4.4	4.3	4.2
I had a strong desire to take this course.(Q4)	31	22	10	1	0	0	4.5	4.1	4.0
As compared with other courses of equal credit, the workload for this course was (SA=Much Lighter, A=Lighter, N=Typical, D=Heavier, SD=Much Heavier). (Q891)	1	4	22	25	13	0	2.3	3.0	2.6
How did the unexpected change to remote course format affect your learning experience in this course this term? (SA=Very Positively Affected, A=Somewhat Positively Affected, N=No Effect, D=Somewhat Negatively Affected, SD=Very Negatively Affected) (Q1840)*	3	8	26	20	8	0	2.7	2.4	2.4

## Responses to University-wide questions about the instructor:

	SA	A	N	D	SD	N/A	Your Median	Univ-wide Median	School/College Median
Overall, Nicole Hamilton was an excellent teacher.(Q2)	18	25	8	4	0	8	4.1	4.6	4.5
Nicole Hamilton seemed well prepared for class meetings.(Q230)	24	24	7	0	0	8	4.4	4.8	4.7
Nicole Hamilton explained material clearly.(Q199)	18	25	9	3	0	8	4.1	4.7	4.5
Nicole Hamilton treated students with respect.(Q217)	27	22	6	0	0	7	4.5	4.8	4.8

#### Responses to questions about the course:

	SA	A	N	D	SD	N/A	Your Median	University-Wide Median
Prerequisites provided adequate preparation for this course. (Q61)	23	20	12	5	0	4	4.2	4.3
The textbook made a valuable contribution to the course. (Q64)	11	5	11	7	9	21	3.0	3.6
The laboratory was a valuable part of this course. (Q331)	15	16	22	5	2	4	3.6	4.4
Laboratory assignments required a reasonable amount of time and effort. (Q336)	23	25	9	5	0	2	4.2	4.2
Laboratory assignments were relevant to what was presented in class. (Q337)	29	29	3	1	0	2	4.4	4.4
I developed confidence in my abilities as an engineer. (Q1769)	22	31	7	2	0	2	4.2	4.1
I developed the ability to solve real world engineering problems. (Q1770)	23	29	8	2	0	2	4.2	4.1

The medians are calculated from Winter 2020 data. University-wide medians are based on all UM classes in which an item was used. The school/college medians in this report are based on classes that are lower division with enrollment of 75 or greater in College of Engineering.

### Written Comments

#### Overall, this was an excellent course.(Q1) (Comments)

#### Comment

- I liked how all the projects went over exactly every single topic discussed in class, and how topics in lecture were constantly reviewed and reinforced in future lectures.

#### Overall, Nicole Hamilton was an excellent teacher.(Q2) (Comments)

#### Comment

- i watch Juett's lectures

- Lectures were hard to follow

- I went to Prof. Juetts lecture instead

- Lectures are not very interactive, and lecture time could be used more effectively than just saying "you're free to go";

#### Nicole Hamilton seemed well prepared for class meetings.(Q230) (Comments)

#### Comment

#### - almost always

- Most lectures wasted time with repeating content word for word from previous lectures instead of going more in depth with material and having students interact with it

#### Nicole Hamilton explained material clearly.(Q199) (Comments)

#### Comment

- almost always

#### Nicole Hamilton treated students with respect.(Q217) (Comments)

Comment

almost always

## What teaching methods worked well? [e.g. videoconferencing; asynchronous interaction; etc.] (Q1841)\*

ments
e hours
1
corded lecture!
office hours que moving to online was seamless and I really hope that it continues in future semesters. Even if we are back a ol, I think it would be a really great option if students have the option to either come to office hours in perosn or just put a zoor ogle meet link in and be able to do it virtually. This would we AMAZING and I really hope the EECS department considers it.
ne lectures
oom
e office hours and how accommodating it is
ure notes ne office hours
e supplemental study groups with an IA and recorded lectures.
e hours were helpful
n't utilizing the recorded lectures, but being able to re–watch and pause the lecture when I need more time or didn't rstand something is very useful.
al office hours, Piazza and lecture recordings
idual office hours
oconferencing
ing in particular stood out incredibly well.
chronous interaction. The fact that lecture notes are uploaded in easily accessible formats made the transition a lot easier
d the online office hours they helped in making things very easy to ask.
e notes
ded lecture
ything worked well
S 280 is a course that had the existing infrastructure in place to move to a remote setting. I liked how all lectures were ded. Also the new office hours scheme works really well.
eans lecture recordings
ectures.
o Conferencing
gle meet worked very efficiently with office hours. In fact, I felt as though it worked more smoothly than regular in–person office s since there wasn't wasted time waiting for people in the queue to go to the table.
are did not really change for most people
ecture notes section of the 280 page became even more helpful during remote instruction
er questions
orded lectures
e recorded lectures, projects and labs
orded lectures
n. The office hours went very smoothly because we just put our zoom link on the queue and an IA would come into our Zoom on and help us out. Very effective.

# What were your greatest challenges in remote learning for this course? [e.g. internet connectivity; personal motivation; managing life stresses; etc.] (Q1842)\*

Commonto
Comments
Lack of recordings. Stress in projects and tight deadlines. Relatively inflexible class times due to lack of recordings. Time as I shift to mainly self studying the material.
wifi reliability
remembering that we had to do labs
Staying motivated and on top of projects was difficult.
Motivation
not meeting in person/having office hours in person make it harder to understand things and reach the resources, queues way longer
personal motivation
Long office hour queue Stress about deadlines/decisions being up in the air
Personal help and office hours.
Personal motivation
motivation
Office hours aren't as easy as in person office hours. However, it would be nice to keep that feature open for people that may not be able to make it to in person office hours. Additionally, it would have been nice to have continued instruction from Prof Hamilton for the remainder of the lectures. It took me a bit to get used to the different teaching style of Prof Juett.
N/A
Greatest challenges include difficulty visualizing concepts that could be explained in person, but not over Piazza or teleconferencing, not having other students to bounce ideas off and actually feel their energy so I feel as motivated, and difficulty retaining information as it is very passive taking notes and just listening to lecture recordings vs actually going to class.
motivation to study, life stresses
motivation
Having less people show up to lecture made it feel like a worse environment for learning since less questions were being asked and having less people there made the class feel "worse" in some ways.
Time management on large projects when I have no concept of time due to being stuck inside all the time.
I had a hard time managing my time due to the fact I don't need to be in class.
managing life stresses
Personal motivation
managing life stresses
none! I feel like this class has been my most positive remote learning experience
Paying attention and keeping my attention with the lectures
Personal motivation.
Staying Focused, Motivation, Studying Environments
personal motivation, managing life stresses, keeping in pace with the class
Personal motivation was the greatest challenge since in-person office hours and classes really helped me stay on track and
motivated with the work.
Zoom was useful, however office hours and lab session were a lot more difficult without being in person. Staff did as best job they could to accommodate and make the most of this though.
personal motivation, especially keeping up with lectures
Working with partners on projects wasn't as fun. The lecture was also harder to stay focused
Not being able to attend office hours in person and get help that way or through in person labs
Getting to office hours, sometimes very crowded
Motivation to stay up to date with lectures

#### Comment on the quality of instruction in this course. (Q900)

## Comments From one of the best before COVID to one of the worst after COVID well laid out Instruction in general was very good in this course, the lecture recordings and notes were very useful for further understanding. I didn't generally attend Nicole Hamilton's lectures. I went online to watch lectures. great very accomodating I think all instructors have their own strengths and weaknesses, so it is important for students to sit in multiple lectures to deduce which Professor aligns most closely with their learning style. More examples and potentially in-class coding would be more beneficial in grasping the concrete applications of concepts. All instructors seemed pretty good Quality of instruction is great! I have all the resources I need to get help. Good instruction, could be slower Some of the best learning support in the entire college, when classes were in-person it never took long to get a question answered. Lectures were on the long side, but helpful to the projects. good The quality is really good with detailed lectures and lots of help on learning the material. it was high The recorded lectures helped This class is very well taught. I like how I have the freedom to choose which lectures to go to that best fit my learning style. I didn't vibe with the professor I signed up for but was able to attend the lectures of a professor I enjoyed. Very well done and very thorough I thought it was incredibly solid and supportive. Good Course Honestly speaking, the overall system for assistance was so bad that I could not get any help through in-person office hours. Other than piazza(in which the quality of most of the answers was also poor, having a very slight allusion or simply just pointing to somewhat related, not-much-related posts that talks around the topic) and lab time which is once a week for a short duration of time after the scheduled class, office hours are basically impossible to attend. The support this course has compared to the difficulty seems ridiculously small. I thought this course was taught very well! I hope future classes that I take are taught like EECS 280. Great! Overall, this course is very well-taught Prof. Juett was very engaged in lecture. You could tell he cared about his students and he was very helpful when it switched to online instruction. He was very transparent about the situation and tailored his teaching style to make it easier for students. I thought the lectures were high quality and decently paced Each instructor was great and would always take time to meet with students who request them to or answer questions in class Very good instruction overall, sometimes professor rushed through specific examples but slowed down when questions were asked. I watched Juett's lecture recordings instead(I had another class that happened at the same time as Juett's lecture) because I strongly preferred his teaching style.

#### How might the class climate be made more inclusive of diverse students? (Q910)

Comments

advertise

I don't think there is really a way for this to be done, the class is demanding and requires that it is your primary or at least close to primary focus.

Encourage more diverse students to enroll in it

Include a DEI component to one of the labs where students share a Piazza post about a time they felt left out/incompetent and have others respond. I think it is important to make more students aware of the negative experiences of others so they are more sensitive as to not contribute to them.

The male to female ratio is very much not equal, and making this course more appealing to those with a variety of coding experiences may help bridge that gap.

I would offer OH remotely for students that can't make it to in-person OH. This would help with students that live off campus and may need to take care of a family in the evenings, have other classes and can't make it to OH, or are feeling sick.

N/A

Not sure what the context of this question is and how to answer it.

Not sure, but maybe be more encouraging of female computer scientists

N/A

I don't know

I think you can make a project that is more open and lets the student design it.

it was fine

it is.

encourage more students to take the class of different backgrounds through fall fest.

Change projects up to include more diverse applicability. Make lab sections taught by minority students for minority students

Nothing shown to say that it's exclusive

It was inclusive I believe

n/a

In order to be more inclusive of a diverse range of students, I think that there could be more resources advertised to these students regarding how they can navigate CS as a minority.

Encouragement of facing a challenge rather than promotion of fear of failing the course

I thought it was very inclusive. Adding more IA and OH was very helpful.

No comment

IMO the climate is very diverse. Never noticed any problems.

## What were the strengths of the course ? (Q953)

Comments
Office hours
teamwork
The projects were fair and helped understand material.
projects offer a really comprehensive way for students like me to feel as if we are capable of programming in the real world and coming up with our own ideas and figuring out how to develop that into a full scale program that can accomplish something
accessibility, people helping each other
Lecture notes
The variety of different projects and the multiple labs.
Expanding office hours helped
I really developed better critical thinking from this course and feel like I understand some of the basics of coding a bit more.
Course staff are great
Strengths of course include broad range of computer science topics and plenty of practice with said topics.
Indviudal office hours, well designed projects
Projects are well designed; challenging but fun. Most seamless online tools/resources of any class I've taken (which kind of makes sense).
strightforward
I think it helps allow students to explore the C++ language more and the things you can do with it.
i learned a lot
recorded lectures, long office hours
The online resources (lecture notes, recordings, files) were great
labs were very helpful
Labs, Projects
The lab was really useful
I loved writing code and doing projects that were so applicable and interesting.
The projects
Focus on projects
The strengths of the course were structure of the projects and office hours. I liked how they observed patterns in office hours, such as students needing help with small questions that could be answered in 2 mins, and constantly updated the structure of office hours to help it run as smoothly as possible.
Organization, always knew what was expected, great staff and multitude of resources for help
The projects and organized IA system so you could get help through various ways
Emphasis on conceptual learning and projects really tested comprehensiveness.
Teaches good content and labs are relevant
It was very easy to get help

It was very easy to get help.

#### What suggestions would you make for improving the course ? (Q955)

#### Comments

Cut down more workload instead and help people understand more of the material

more projects

PLEASE consider offering the office hours queue meet online as it currently is. It would be AMAZING if students had the option to either come to office hours in person or enter a zoom or google meet link instead and meet over that. I also think that projects are occasionally not timed well with lecture, as some material that we need to be using in the project isn't covered in lecture until halfway through the project time frame.

Maybe get more people to staff office hours, they're often really long queues

Office hour queue can be really long

Euchre project was hard for the wrong reasons

The content is very difficult for those who want to take the course and improve but have little to no prior experience. It may be difficult to standardized it as many students don't have the same experiences coding, but potentially making the course slightly easier or going at a slower pace, but offering extra credit or incentives for those who want/need an additional challenge.

I think all that was hampered was as a result of the coronavirus.

N/A

Including more examples relevant to projects in lecture slides, an example of this would be recursion that doesn't follow simple if() else() structure as some functions don't always follow lecture structure.

Not have private tests— we worked really hard on the projects, so its really disappointing to see 100% on autograder but then get a 70% later on, with no opportunity to fix it

More frequent, shorter lectures.

none

I would suggest making the projects specs a little more clear cause sometimes things do not make sense even after reading them a few times.

no comment

Have more IA's for office hours

Just get rid of Project 4 ;)

Or at least make it a little less time-consuming?

Projects involved stuff that I had yet to learn, so they were hard to complete over time, rather than in the week it was due

a little bit more instruction on implementing driver programs

n/a

Be more thorough and specific with the projects

None

Termination of exams; I feel like I am basically losing my ability to program when I am studying for exams. Exams are so irrelevant to the entire skillset of programming.

To improve this course, a sample timeline for project completion (especially for the euchre project) could be provided so that students can manage their time better when working on projects. Estimated times could also be helpful so that students can customize their own schedules for working on projects.

Complete the actual lab during lab session with groups

Midterm 1 was handled very poorly and it seemed like professors cared more about their exam "proceeding as scheduled" than the fact that the college shut down and students were concerned about leaving campus, buying airplane tickets home, their economic situation, etc. When students expressed their concern they were told to "grow up". Overall, this made me lose respect for EECS at umich. For improvement, be respectful and try to understand what students are going through. You might think you are being helpful by ensuring the exam proceeds like normal, but you fail to understand that students might be more concerned with calling their parents and figuring out how they are going to get home.

Better explanation of how projects work before project 1 starts

Make the labs harder, I didn't really feel like they enhanced my understanding.

The lectures are kind of related to the projects, but just barely, so they seem kind of detached. Which makes sense, since the projects and objects are often years old. I'm not sure if it's reasonable either for them to expect us to only learn about the projects from the spec/lab, or for us to expect them to cover the project in lecture. Either way, they seem detached from one another.

Not make the exams worth so much, because I am not a very good test taker, and it takes me a long time to come up with the code on exams, resulting in me not finishing usually.

## Among the courses you have already taken, which proved the most (or least) effective in preparing you for this course, and why? (Q1098)

Commentsmost, engr 101, fundementalsIn EECS 183 the projects, specifically the final project was very helpful in prepartion for this class.EECS 183 really helped me prepareENG 101 – first programming class i took so i needed it to take thisThe only course that I have taken to prepare me for this one was EECS 183. I did not feel behind or anything compared to the Engin 101 students.Engineering 101 provides a good basis for the beginning of the course, but as it is only half a semester of C++ experience, it is not as beneficial as it could be if it was more C++ experience.ENGIN 101 was the most helpful. It was the only other programming intensive course that I had before this.
In EECS 183 the projects, specifically the final project was very helpful in prepartion for this class. EECS 183 really helped me prepare ENG 101 – first programming class i took so i needed it to take this The only course that I have taken to prepare me for this one was EECS 183. I did not feel behind or anything compared to the Engin 101 students. Engineering 101 provides a good basis for the beginning of the course, but as it is only half a semester of C++ experience, it is not as beneficial as it could be if it was more C++ experience.
EECS 183 really helped me prepare         ENG 101 – first programming class i took so i needed it to take this         The only course that I have taken to prepare me for this one was EECS 183. I did not feel behind or anything compared to the Engin 101 students.         Engineering 101 provides a good basis for the beginning of the course, but as it is only half a semester of C++ experience, it is not as beneficial as it could be if it was more C++ experience.
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101 students. Engineering 101 provides a good basis for the beginning of the course, but as it is only half a semester of C++ experience, it is not as beneficial as it could be if it was more C++ experience.
as beneficial as it could be if it was more C++ experience.
ENGIN 101 was the most helpful. It was the only other programming intensive course that I had before this
Evolve for was the most helpful. It was the only other programming intensive course that that before this.
N/A
Going to OH frequently, asking others for help and utilizing Piazza proved most effective because in other classes, I usually cannot make it to OH because of limited hour. Piazza is an extremely useful tool as a result.
EECS183
EECS 183 is basically just diet 280. It taught me most of the syntax used in 280.
EECS280
Chemistry 130 was not that helpful since nothing from that course related to eecs 280.
engr 101
If I had to choose, ENGR 101, however that class was mostly review for what I already knew
eecs 203
EECS 183, gave me the foundation for coding to succeed in this class
ENGR 101
ENGR 151 prepared me
n/a
Engineering 101 helped a lot in preparing me for this course since I already had exposures to data structures like structs, which were not covered in classes like EECS 183.
I felt like EECS 183 was not the best preparation for this course, because the projects in 183 are very straightforward in comparison to those in 280. If the last non-final project in 183 was more similar to 280 projects, I would have felt much more confident going into 280.
Engineering 151 proved the most effective because the difficulty level was similar
ENGR 101 bc we didn't go over classes or arrays
N/A
ENGR 101 was a good preparation.

\* Due to the unexpected shift to remote instruction, questions 1840, 1841, and 1842 were added to all end-of-term Winter 2020 teaching evaluations.