

University of Michigan

Spring/Summer 2020 Instructor Report With Comments

EECS 482-001: Intro Oper System

Nicole Hamilton

18 out of 38 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)	13	5	0	0	0	0	4.8	4.6	4.7
My interest in the subject has increased because of this course. (Q1632)	11	3	3	1	0	0	4.7	4.3	4.4
I knew what was expected of me in this course.(Q1633)	9	5	1	3	0	0	4.5	4.6	4.5
Overall, this was an excellent course.(Q1)	10	7	0	1	0	0	4.6	4.4	4.5
I had a strong desire to take this course.(Q4)	12	3	3	0	0	0	4.8	4.0	4.3
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)	0	0	1	3	14	0	1.1	2.9	2.6

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)	12	5	0	0	0	0	4.8	4.7	4.7
Nicole Hamilton seemed well prepared for class meetings.(Q230)	9	8	1	0	0	0	4.5	4.8	4.7
Nicole Hamilton explained material clearly.(Q199)	11	5	2	0	0	0	4.7	4.7	4.7
Nicole Hamilton treated students with respect.(Q217)	17	1	0	0	0	0	5.0	4.9	4.9

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)	10	7	1	0	0	0	4.6	4.5
The textbook made a valuable contribution to the course. (Q64)	2	4	5	1	2	4	3.3	3.9
The laboratory was a valuable part of this course. (Q331)	6	9	2	0	0	1	4.2	4.3
Laboratory assignments required a reasonable amount of time and effort. (Q336)	6	8	2	1	0	1	4.2	4.4
Laboratory assignments were relevant to what was presented in class. (Q337)	12	5	0	0	0	1	4.8	4.8
I developed confidence in my abilities as an engineer. (Q1769)	8	6	1	3	0	0	4.3	4.4
I developed the ability to solve real world engineering problems. (Q1770)	8	5	5	0	0	0	4.3	4.4

EECS 370 should remain a prerequisite for EECS 482 because it would be difficult to understand a lot of the material in this course without it.

(custom question added by the instructor)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Your Median
6	3	2	5	2	0	3.5

I gained useful experience and improved my skills and ability to work as an effective member or leader of a team.

(custom question added by the instructor)

Strongly Agree	Agree	Neutral	Disagree	Strongly Agree	N/A	Your Median
9	4	2	1	0	2	4.6

An important reason I took this class is because it will help me get a job.

(custom question added by the instructor)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Your Median
3	6	7	2	0	0	3.5

The medians are calculated from Spring/Summer 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 upper division with enrollment of 16 to 74 in College of Engineering.

Written Comments

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

Comments
Professor Hamilton is a phenomenal instructor. She did her best to be accommodating to all students especially during this pandemic and wanted everyone to succeed in the course.
It is hard to gauge since this was Nicole's first time teaching it. The course itself seems to suffer from disconnect between lecture material and project expectations once we get to Proj. 3 and 4. Labs definitely help fill in the blanks, but this makes the lectures seem more like a "waste" of time. Nicole noticed the severe drop in attendance and it more than likely stems from this idea that later lectures don't really have a strong connection to the later projects.
I think the quality of instruction is very good in this course. The lectures are paced well and the content is spaced out such that there is not too much information being presented in one lecture. Nicole speaks clearly and always asks questions, which are helpful for building and retaining understanding. Her enthusiasm for the topics shows, which makes learning them much more enjoyable.
9/10. 10/10 for the IAs. the labs were very helpful and the instructors were knowledgeable. I'm confident that if Nicole Hamilton taught this course again she will do an even better job.
good
Thank you professor Hamilton & the IAs, I really enjoyed this class and felt that I came a long way as a computer scientist.
The instruction was as well as it could be, but the faculty not knowing how the AG works made project work a lot harder
The instruction by all staff in this course was good as a first edition of Spring/Summer run through. Lectures modeled from previous instruction were sufficient in learning the foundation on what we had to work on. If this course were to be run in the summer again with a similar smaller class size, I encourage the course instruction staff be more helpful with hints and insights on how to tackle the projects to combat the lower amount of Piazza posts that would have been available to students.
Really good. Even though it seemed like we went through the material quicker than in previous semesters, I thought that everything was taught pretty well.
Overall the quality of the lectures was great given the situation with online classes. I had no trouble understanding the course material and rarely struggled.
Very high quality
I thought the instruction was great and I really appreciated how much the professor and IAs understood that this is a difficult time.
Professor Hamilton was one of the best instructors I've had at umich. I wasn't able to make it to most lectures, but even rewatching them at night was a pleasure, and helped me learn the material a lot better.
Professor Hamilton and the TAs all provided very high level of quality in instruction.
Course instruction quality was very good and accommodating of the current circumstances.
It was excellent.

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

Comments
N/A
do not know
Not sure
To consider all time zones equally, it would help to have volunteers from previous courses willing to spend an hour or two a week helping such a small class complete the projects.
more methods of instruction should be available to those with poorer internet access and slow video streaming quality.
N/A
Because of the online nature, diversity of students does not impact instruction that much.
Given the unique circumstances of the course, I believe it is difficult to derive changes to be made to the class climate.

What were the strengths of the course ? (Q953)

Comments

This is the first programming course (not counting 270/370 labs) I have taken (as a senior) that pretty much forces you into a group. Maybe CS students get exposed sooner, but CE students could benefit from an earlier attempt to force group programming.

The topics learned in this course are very interesting. The projects are very difficult, but also rewarding. I think this class has really improved my skills understanding as a programmer.

The labs are very helpful for understanding the projects. Also, Piazza is a great resource, and the IAs are extremely fast at responding.

Great professor & material

My favorite part were the projects because they were relevant and solidified my understanding

The material is interesting and the projects help you learn the concepts well.

The strengths of the course is not in the difficulty of problems faced, but the depth at which we must solve a simple solution into an elegant solution. A helpful staff course passionate in assisting us played a major role in making me not lose commitment throughout the summer.

I think the course's biggest strength is that it forces you to really become familiar with the details of how OS concepts are implemented.

This course truly tests your capability of implementing large responsible programs that simulate aspects of the operating system.

I love how a lot of the tests were almost logic puzzles of implementation relevant to the course content. I love how the we get experience implementing everything, I feel like it advanced my understanding a ton.

The instruction, and how much fun the projects were.

Very difficult material

Flexible with the circumstances of the summer & being online.

It was taught very well and covered important topics.

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

Comments

Really need to tie in the later lecture material to the later projects more closely. More code examples rather than big picture concepts.

I tell this to every EECS professor in the evals, get a structured notes sheet together that has fill-in-the-blank sections, short answer sections, code samples, etc, and then create your slides using that. Most profs do it the other way around. They create their slides and then just distribute them as their notes sheet. There is a difference. Look to Jack Miller (Stats 412) as an example.

It makes following along with live lectures incredibly easier. Most of my EECS classes, I just skip live lecture and watch the recording. It sucks not being able to ask questions live, but if I attend live I either can't pay full attention because I am trying to take thorough notes, or I have to watch the recording anyways to take the notes. It's more time consuming that way. I might as well just skip the live lecture and be able to pause the recording to take my notes. Structured notes really make it easy to highlight the "more important" concepts too.

maybe cut the third and fourth projects by one level of difficulty. Or give less time for the first project so more time can be spent on the third and fourth ones

spec could be a bit more clear, a lot of things the auto-grader checked for was not clearly explained

Make it a 5 or 6 credit class to account for the amount of time this course requires. The 4 credit label is very misleading on the amount of effort it takes. Or decrease the scope of the projects (I don't think PChen is gonna do that tho). Also make the autograder interface more user friendly.

As a summer edition, I would suggest making teams a mandatory size three at all times, with the option to include a fourth teammate. Personally, I was engaged in an internship for the whole duration of the class on a team initially with three members. One member had to drop out due to a conflict of interest for taking the course. As a result, working on a team of two, we could only come up with so many insights to tackle the later projects in the course.

More tips and tricks to tackling the projects in the course should be considered in a smaller class size. It is difficult to only receive help from three IA's and the infrequent piazza posts in order to fully grasp every difficult aspect of the projects.

I would suggest the course become more theory oriented and have less emphasis on implementation of concepts in long tedious projects and rather study the significance of the topics explored through creating new but related systems that test the deep understanding of material.

Make it a 6 credit class for everyone, I don't understand why people are expected to know advanced version stuff for the exams no matter what especially when I don't think the advanced version projects increased workload by 50%

The autograder is a mess, and makes it really difficult to get anywhere if you are stuck. And if a student has caught all or almost of the bugs, they should not be failing a majority of the test cases.

The tests are really rough—id rather 2 extra projects, or at least more practice problems for them.

Easier exams would be nice.

A longer project 4 and shorter project 3.

None.

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

Comments

All the prerequisite courses helped me prepare for this course. However, EECS 482 I don't think should be an enforced prerequisite. The information does give you an advantage for only 1 project out of all the projects in the class, but I think it could easily be taught in 482.

This is purely a programming course, so 280/281 are really the only classes that help prepare you. I don't understand the 370 req at all. The only thing that connects with this class is the underlying understanding of atomicity, which can be explained in about 5 minutes (at a level you need for this class)

EECS 281 is the most important prerequisite for this course. Many of the programming techniques and data structures learned in 281 are necessary for the projects. Some of the topics in EECS 481 were also helpful on the projects, such as regression testing, coverage, and general familiarity of using the terminal in Linux. EECS 370 is useful for the virtual memory topics, as well as for some lower-level C programming used in the projects.

370 greatly prepared me for the virtual memory part of the course

EECS 470 is the classes I have taken that really helped in this course. it makes a lot more sense when you know how the underlying hardware actually works. 370 and 281 were also really helpful

Most effective: 281

EECS 281 was helpful in teaching you how to effectively use and implement data structures in C++

System Design of a Search Engine. Both classes could be taken previous to one another and both would greatly assist in the understanding of each topic. Now EECS 440, the class gave a generalized understanding of all major project topics that sped up the deeper breadth at which how to perform threading, memory-mapped files, and sockets. Without taking this course previously to this summer semester, it would have been much more difficult to succeed.

I think that EECS 370, EECS 280, and EECS 281 were probably the most useful in preparing me for this course. EECS 370 introduced me to the key ideas behind virtual memory and paging which was really helpful, and EECS 280 helped me become familiar with the C++ language. EECS 281 was helpful because it helped me get a feel for developing large projects without any starter code, and forced me to become better at laying out my code effectively.

The most effective was eecs 281 since this course was c++ heavy.

281 by far, I couldn't have done the projects if I didn't know the C++ data structure wheelhouse. 370 some specific parts did, but I'm very sympathetic to 370 being optional and 482 teaching the extra bits because 482 has been a lot more enlightening and improved my coding ability.

EECS 370

370 didnt help, it was fun though. Honestly ENGR 100 was the most effective, as it helped me balance time properly and set up goals.

370 because of the relevant course material and setup on how computer architecture works.

EECS 281 is necessary for the projects.

EECS 281 was the most effective because it rigorously taught and explained how to use data structures, which are critical for the projects.

How did the switch to a totally online format affect your experience?

Comments
It was honestly very hard to stay motivated, especially during the Summer. Working remotely with my partner worked out surprisingly well though and made me more comfortable with using tools like Git.
I am a long distance commuter, so I avoid going to campus as much as possible anyways. Not being able to get help in person is sometimes detrimental, but for a programming class like this it has little effect.
Being able to watch the lectures at home made the experience more convenient, but it began to get harder to stay on track after the midterm because, without a physical location to go to, it's less motivating to show up to lecture knowing that I can watch the recordings later on. The online experience has increased distractions and made discipline harder.
I would have liked to have in person office hours but overall little effect
made working with groups much harder and more time consuming
It felt more isolated, didn't get to see/talk with peers (other than my partner)
It made things a lot harder. Office Hours and group projects were harder to do virtually. I only wish the option to take this class pass/fail was extended into the summer
The online format greatly hindered progress, or rather passion, to commit to doing my best to succeed. Fewer questions were asked due to everyone else's time commitments during lecture. Utilizing VSCode features or streaming over Discord for pair programming diminished coding ability versus in-person working together.
I don't think it affected my experience that much.
The experience is surprisingly good since the format of online classes is not unlike what I'm used to.
I wish I was able to work with my group in person
It was lowkey a nightmare, but I don't think much else could be done.
AWESOME—work at my own pace, and teammates were really chill.
not at all.
Went well. Being in the summer without other class obligations or homework makes this experience unique to a "normal" remote semester.
Not too much.

You could choose to do the projects alone or with one or two teammates. What did you choose and how did that work out?

Comments
Alone. Worked out fairly well.
I did the project with one other teammate. It was fairly difficult to work with him due to his lack of responsibility and his procrastination. We mainly dealt with logistical issues, but when we were working together, things were overall fine. He progressively improved his communication and collaborative skills throughout each project and things ended up working out great with project 4.
I chose two teammates. Yes, there is the option to go solo, but the default for this class is a group is found for you if you don't create one. I like to do projects on my own, but it's helpful to get "forced" into a group. Conflicting styles was annoying and not doing all the code yourself means you miss out on some deeper understanding, but also the workload in this class makes it hard to think going solo would have been a friendly experience.
I chose to work alone on all of the projects. Overall, I am happy with what my performance and what I have produced. They were a definitely a challenge, but doable. I really enjoyed working on them because it was cool to be implementing such major libraries and systems that were intimidating in the past. Now, I feel more capable of writing and designing such systems. Working alone, the workload was very high. They have taken me about two full weeks of work each to finish them. I have only ever put as much time and focus into personal projects. I don't regret working alone, however, because I really enjoyed the projects and liked being able to design and understand every aspect of the implementation.
2 teammates for first group project and that worked out well and then one of them dropped the course so the workload for the following projects became much greater
I chose to do it with teammates. It turned out pretty good.
I chose to work with teammates to spread out the work and allow us to finish projects faster. It didn't really work out, as we still got destroyed by the projects.
Initially, I was part of a three person team that had one member drop midway through the summer. We were doing well up until such drop occurred. I do not blame the team member who dropped due to it being outside of their control. Because the summer has obligations, and our team members all had jobs or internships lined up, it was difficult to perform to our utmost ability in the later half of the semester.
I chose to work with one teammate. I thought that it worked out quite well. We did almost all of our coding together via screenshare.
I worked with a teammate. In soothe, all the projects except project 4 are more suited to a single coder since the various aspects of the project are highly intertwined. A single student with a firm grasp on the concept he's implementing will find more success then two who need to coordinate every function.
I chose to do it with 2 teammates, I progressively did more each project alone and I'm not even that mad, codebugging over screen-share is infuriating
2 teammates—doing it alone would have been death, and this was quite pleasant—much lower workload.
Chose 2 teammates, worked pretty well.
With two teammates. Worked out well, mainly because it's the summer and no one is doing anything because of the shutdown. Currently in project 4 and wishing we had more time....
I chose to work with teammates, which was a great choice because their input was very valuable at times.