

Mixed Reality (Spring 2023)

Instructor: **Yildirim, Caglar**

Subject: **CS**

Catalog & Section: **5097 04**

Course ID: **38911**

Objectives:

Enrollment: **30**

Responses Incl Declines: **25**

Declines: **0**

Instructor Related Questions: Caglar Yildirim (51 comments)

Q: What were the strengths of this course and/or this instructor?

- 1 The instructor was extremely passionate about the course and was prepared for lectures. The course outlines a good foundation to VR.
- 2 Professor Caglar is really passionate about Mixed reality and that was reflected in the efforts he put in and also the energy with which he taught in class. He definitely has increased my interest in mixed reality and gaming in general which has influenced me take more Game development courses in the future.
- 3 The course covered a lot of material through the assignments and lectures that gave a nice holistic overview of VR. I liked that the homework assignments allowed us to do something different than the final project. The instructor was also generally very understanding and willing to work with students to push deadlines or assignments as necessary.
- 4 The professors main strength is that he cares very deeply about the material. The material is very interesting, and most new material is covered within the first two months of class.
- 5 Very well organized course. The course structure shows the effort put in by the instructor. The instructor was receptive to feedback from students and accommodated changes to the course deadlines when necessary.
- 6 Good Course Material
- 7 He was very good at communicating the material, and I came out of this class with a high confidence in my Unity abilities.
- 8 a very good professor who has very high enthusiasm for this course. Always update the class according to the latest technology.
- 9 Depth of knowledge, passion for the field, and love for the students
- 10 This a new and evolving field. Incorporating the latest design and technologies in assignments and projects was useful. The instructor's enthusiasm was infectious and motivated me throughout the course.
- 11 Prof. Caglar is so good at structuring the course in a way that would make even newbies into experts by the end of the course. I'm still in awe as to how I learned so much through this course, notwithstanding how demanding it was.
- 12 Very passionate about the domain
- 13 My favorite class and professor this semester by far. Prof Yildirim is very passionate about VR and very knowledgeable so it made the class easy to get excited about.
- 14 Yildirim is really passionate about what he teaches, and he teaches it well!
- 15 He is very enthusiastic when it comes to Mixed Reality and it shows in his teaching.
- 16 Very knowledgeable in the course content and in the game / XR industry. Very good at communicating expectations and is understanding with deadlines.
- 17 Excitement.
- 18 Challenging course. Good communication and great outcomes.
- 19 The instructor demonstrates a passion for the material he covers, is very enthusiastic, and makes lectures extremely engaging and fun. I cannot recall a single lecture that was dull. The instructor also does a great job making an effort to get to know all his students which makes for an engaging experience and I hope Northeastern keeps the class size similar, unlike other classes that only seem to get bigger and more unmanageable.

Q: What could the instructor do to make this course better?

- 1 I believe that providing a project/assignment rubric in advance would greatly benefit students in understanding the professor's expectations and reducing any potential ambiguities at the time of submission. In my experience, I have encountered situations where the professor's decision-making process appeared biased, and the explanations provided for conflict resolution did not seem logical. Clear and objective criteria can help alleviate concerns about impartiality and promote a fair evaluation of all students' work.
- 2 Pretty much almost everything was right on point. I just feel quizzes were a bit tough in terms of grading, for a more implementation heavy course like this :P
- 3 I think that it would be nice to add some sort of peer evaluation check-in for the final project halfway through, instead of just doing one peer evaluation at the end. Maybe two peer evaluations could each be 2.5% of the grade. I got a couple points docked on my peer eval that I was surprised by, and I think having a check-in could have alerted me earlier. I had no problems working with them and no concerns were raised during the project process. There are multiple scenarios that may benefit from a mid-semester check-in. One example is where one person is doing a large amount of extra work compared to others but is volunteering to do so or wants to. Conversely, this may occur with the person volunteering but not because they actually want to do it. The teammates could be doing their fair share with this person just going above and beyond, but then they are doing more work than others. Then depending on the scenario, they may actually be unhappy with it but not bring it up, so the team is unable to resolve it. Another scenario could be that teammates are asking who needs help or if they should do more, but other teammates tell them it is fine while actually thinking they are not doing enough, which doesn't benefit anyone. A different possible solution could be a self evaluation alongside the peer evaluation.
- 4 The professor spends far too long expressing doubts and disappointment in his students. The slides could be improved by using more class participation during lectures. The lectures were long, boring, and almost impossible to listen to. Allowing students to pick their own final projects, or at least not expecting final projects to be a substitute for his own research would be a strong improvement.

Furthermore, there is a great deal too much work in the class. The professor expects students to play with the VR environment for a few hours between each class (not for any assignment), complete quizzes that are announced basically as surprises over a single weekend, complete large individual assignments, and work on the group project. He once expressed that the group project should look "so much better than they do" because with 3-4 members working 2 hours a night each they could achieve more. He expects students do practically do nothing outside of his class and not have other classes.
- 5 Better TA support for development issues in Unity
- 6 More IDE feedback based on individual systems.
- 7 The take home assignments, like the quizzes, felt more like "gotcha" questions than real tests of knowledge. For example, some quiz questions would ask the exact components needed to set up voice recognition in Oculus, and memorizing these components did not feel like an effective way to learn. On top of this, the questions required you to select all that were true, and if you selected one wrong, you got the whole question wrong.

The assignments that required hands on development, like the app demos, were much better for learning. These felt like they were much fairer evaluations of our abilities in Unity.
- 8 probably don't/reduce reuse of the course material/assignment from game programming

Q: What could the instructor do to make this course better?

- 9 I think there are parts of this course that need to be revamped. I don't like the grade weightage assigned to quizzes, I think it's way too high. I also didn't like how nitpicky the grading of the non-app deliverables of the project was. I was penalized for extremely minor things over and over, each time there was a different nitpick and by the end, it just became annoying. I also wish we got to spend more time on the AR part of XR, since right now it was pretty much just a VR course. Maybe pack more into the initial weeks or reduce the scope of projects so we could cover another assignment a few weeks of topics on AR.
- 10 Give students more freedom to implement and design things according to themselves
- 11 The syllabus and rubrics for assignments didn't always line up with what he said in class.
- 12 He could make time for students more, and have more clarity on what he is expecting of students. His grading schema is also very harsh considering if you miss one thing such as messing up an objects size h it can knock your grade on the assignment from a 100 to a 80.
- 13 Nothing much
- 14 No complaints. I loved this class and professor. It's a great segue from game programming and it's so fun to make games that you can be fully immersed in. Honestly one of my favorite classes
- 15 Manage expectations
- 16 Maybe rationalise the number of deliverables in the course. I feel like the final projects could have been a little better if not for many other submissions at the same time.
- 17 The instructor could more evenly spread out deliverables throughout the semester. The class is very relaxed in the first couple of weeks but gets very stressful and taxing as the semester progresses and is unsparing towards the end. Whoever takes this class should expect to spend disproportionately more time working on this course than in their other classes in the semester.

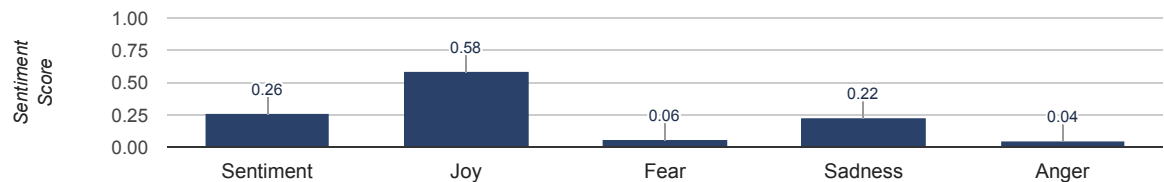
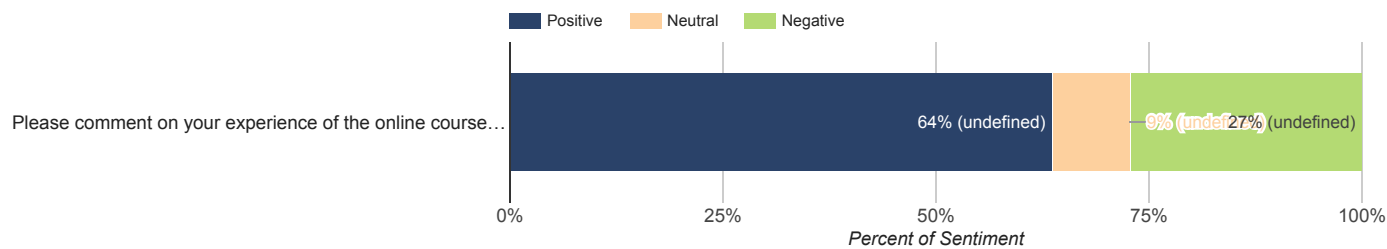
Q: Please expand on the instructor's strengths and/or areas for improvement in facilitating inclusive learning.

- 1 While the professor encourages thinking outside the box for project ideas, I have observed instances where he attempts to impose his own boundaries and thought processes. Additionally, during evaluations, I have experienced situations where my classmates and I have raised concerns about discrepancies between our ideas and the professor's expectations, only to be dismissed and invalidated. This has led to feelings of frustration and confusion. It would be helpful for the professor to provide clear and consistent guidelines for evaluation to avoid any misunderstandings and ensure fair and objective assessment of all students' work.
- 2 I think the instructor is strong at providing online modules and doing in-class tutorials/demonstrations. I think that adding another peer evaluation or maybe a TA check-in could better facilitate group work compared to just project reports. I also did feel confused on resources for receiving homework help once the assignments were turned in. If I wasn't able to figure something out, I was curious on the correct way to do it, but could I ask for solutions or should I go to OH, etc.? I could have asked the professor for clarification but it was not immediately clear. I think that it would also be nice for the professor to provide clear information on how final project work should be divided. Because of the final rubrics, team members should aim to contribute one major script, one major mechanic, and something to the level design/scene. While this may seem like a given, work could end up split such that one member writes a lot of scripts but then doesn't do any level design, which would result in losing some points in the end. Having the professor go over some of these expectations in the beginning could help prevent this.
- 3 The instructor spends a great deal of class talking badly about his students and being patronizing. He will assign excessive amounts of work and then make fun of students for wanting extra time. He often assigns clear information on how final project work should be divided. Furthermore, he doesn't respect the students out of time class requiring several groups to attend long outside of class activities and being snide when member's said they could not come because they had a scheduling conflict. He is unwilling to work with people who have things come up.
- 4 I liked that the instructor gave timely feedback and great suggestions which ultimately made our final project a success. His jovial personality made the class fun to attend!
- 5 The instructor was always very open and friendly, and very interested to talk about any questions you had about mixed reality.
- 6 Very passionate about HCI and Mixed Reality. Great knowledge and always guides in the right direction.
- 7 The Prof. could be clearer on his requirements for the project. A lot of his comments on the project were highly subjective seeming and it felt like I only lost points since the project wasn't absolutely and exactly how he wanted it. Every time we spoke to him before the submission, he never once outright told us to remove/alter some parts of our project, but docked points for it at the end. Clarity is always appreciated, in my opinion.

Strengths, of course, are that he is clearly extremely knowledgeable about the field and it was genuinely fun to come to class each week. I am very glad to have taken this class, as tiring as it was.
- 8 Great class, I highly recommend it. Look forward to taking other classes with this professor.
- 9 Yildirim teaches great. You will learn a lot from him in the class. However, his grading scale can be extremely harsh and subjective. A more objective grading measurement would improve the course tremendously. In addition, rotating on which groups he spends time with during class would be appropriate, instead of the same rotation because it puts people at a significant disadvantage.
- 10 He was expert in the domain.
- 11 good at listening to feedback
- 12 The learning environment felt inclusive and I wasn't afraid to ask/answer questions in class.
- 13 The instructor acted and graded as if this course was the top and only priority of all students. He seemed to not be aware of the fact that all students have other coursework and commitments, and his grading reflected this. You could only truly do well if you surpassed the requirements and rubric, through we were not fully taught the skills to do this or adequately given enough time/preparation to meet these expectations.
- 14 Instructor is enthusiastic about teaching this course which makes the learning experience effective.
- 15 This class has a disproportionately high number of deliverables compared to any other class I've taken at Northeastern - and while this isn't a reflection of how much work is expected, the sheer number of deliverables and deadlines to keep track of can be daunting - especially when many of them are so close to each other. As Jeff Bezos would put it: "Stress primarily comes from not taking action over something that you can have some control over", this class requires that you regularly and consistently chip away at all the required tasks before they pile up and you start to feel overwhelmed - which is easier said than done with all your other classes and commitments. But the instructor has been fairly flexible in terms of enforcing deadlines and has always sought to ensure students can succeed. Overall, I've had a great experience and this class checks all the boxes in terms of what a graduate course ought to be like. I would like to thank the instructor for curating such a gratifying and fun experience.

Questions to Assess Students' Online Experience (11 comments)

Q: Please comment on your experience of the online course environment in the open-ended text box.



- 1 The online modules were not enough sometimes to understand key concepts. ★☆☆☆☆
- 2 I found all the online modules to be quite helpful ★★★★★
- 3 The modules were great for online class days. I liked that the slides were uploaded, though that stopped. ★★★★★
- 4 The online experience was comparable to the in class experience. Some of the online modules felt redundant and unnecessary. ★☆☆☆☆
- 5 The course was mostly in person and all assets were provided in person only. ★★★★★
- 6 online environment mainly serves as a file/recording uploader/downloader, it would be better if it covers more online courses beyond class recording. ★★★★★
- 7 Prof was always understanding of deadlines and fairly quick to respond to questions via email or Piazza ★★★★★
- 8 There was not much online. ★☆☆☆☆
- 9 Some of the lectures had to be asynchronous. The online modules were very easy to follow and structured very well. ★★★★★
- 10 I appreciated the use of the discussion board in the first half of the class to understand the theoretical material. ★★★★★
- 11 The online modules, reading resources, and lecture recordings were extremely helpful and the instructor has developed a comprehensive set of resources to not only succeed in the course but also learn concepts beyond. ★★★★★

Student Self-Assessment of their Effort to Achieve Course Outcomes (9 comments)

Q: What I could have done to make this course better for myself.

- 1 I devoted a significant amount of time and effort to this class, and I am disappointed that my grade does not reflect the level of commitment I put into it. Despite my best efforts, I am unfortunately not satisfied with the outcome. Nevertheless, I appreciate the opportunity to learn and grow, and I will use this experience as a motivation to continue to strive for excellence in my future academic endeavors.
- 2 There was not much else I could have done to do any better in this class. Would have helped to have a lot more help from my teammates, not like I got to choose them anyway.
- 3 I could have taken better notes or gone to more office hours.
- 4 I think I made the best of the course.
- 5 Paid more attentions to in class work and explored libraries from Unity.
- 6 Playing with Unity is really important. Playing with it more to get more familiar with it would have been helpful in my ability to get work done quicker.
- 7 Read more documentation.
- 8 Starting assignments early would certainly help. You'd think that a class where you make VR games would be easy, but it does take a lot of work and time to develop good apps.
- 9 I could have perhaps gotten a headstart with some of the assignments.