This report contains feedback from students about a course taught in the School of Informatics during the 2020/21 academic year, in response to the following questions:

- What advice would you give to a student taking this course in future?
- What did you find most valuable about the course?
- What improvements, if any, would you make to the course?
- Please add any other comments you have about workshops, tutorials or labs on this course
- Please add any other comments you have about the presentation of course materials online and their accessibility
- Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?
- Is there anything else you’d like to tell us about your experience of hybrid teaching and learning on this course that would help us improve our approach?

Each course organiser receives this report as well as statistics on multiple-choice responses. All these reports, together with student feedback about individual members of teaching staff, are collected and sent to the Director of Learning and Teaching.

Please note that these are personal responses from individual students: some courses only have a few responses and a small sample can be unrepresentative.

Stereotyping and bias, especially unconscious bias, is a serious concern in any survey gathering personal responses. All students received the rubric below before completing the surveys, and you can read a brief introduction to issues of unconscious bias on the university web pages at http://edin.ac/2iypZBv

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Rubric given to all students taking the end-of-course feedback survey

We value your opinions on the courses you take here at the University, as they allow us to shape future delivery and development. We welcome constructive comments about your courses, whether positive or negative, and ask you to give details about any issues in order to help the course organiser to understand and address them.

We encourage you to be aware of the potential for bias in the completion of these questionnaires, so we have developed resources which may be helpful to you:

- Equality, Diversity and Unconscious Bias (http://edin.ac/2iypZBv)

You also have a responsibility to provide feedback in a manner which does not breach the University’s Dignity and Respect Policy:

- University of Edinburgh Dignity and Respect Policy (http://edin.ac/1Cq0VZY)

The results of the questionnaires will never be analysed in a way that seeks to identify individual students from their responses. However, should you wish to remain anonymous, please do not identify yourself in your answers to the survey questionnaire implicitly or explicitly.
1. What did you find most valuable about the course?

- Assignments helped enforce lecture material
- Definitely the first 4 weeks, I believe that this part of the course was by far the most well organised, well taught and most informative.
- Got to learn a wide range of subjects to do with cognitive science - I liked the hybrid of coding and non-coding parts of the course.
- I can enrich my knowledge and learn something new and interesting.
- I found the lectures very interesting, especially the last block which was more neuroscience focused.
- It was the course that opens an area that I've never exposed to. I took Introduction to Cognitive Science in previous semester, but not that related to Informatics.
- Learning Python
- Organised well, resources and lectures easy to find.
- Some concepts are hard to understand, but once you do they are very interesting and useful!
- That the assignments were guided but allowed us to make up our own mind about what was happening.
- The breadth of the content, and some of the tutorials were quite interesting too.
- The coding labs, worksheets and assignments in such a big range of applications.
- The comments from the first assignment were really detailed and helpful, some of the best feedback I've received all year!
- The content's connections to neural networks and machine learning
- The knowledge to cognition and others. Definitely interesting.
- The lecture and reading material, they were enjoyable things to learn about
- The variety of content and the mixture of recorded and live lessons
- There was a good amount of variety in the material, I learned both material through the lectures and skills in coding. Tutorials were for the most part interesting. I enjoyed learning about topics that I wouldn't have encountered otherwise. I appreciated all opportunities to engage with lecturers and thank them for giving their time and energy in such strange circumstances.
- doing this course gives me a chance to know AI and basic operations of Python
- Getting an insight into many different topics
What improvements, if any, would you make to the course?

- Introduce more assessment components
  - Provide personalized feedback for the assignments instead of some general comments
  - Hire more markers so that the feedback of the assignment can meet the proposed deadlines
  - The marking criteria was not entirely clear in some of the assignment tasks

Explain concepts in more details.

I did not realise the only assessed area would be programming. This made it feel as though the lecture information was almost pointless as it was never tested etc.

I feel all the mathematical/model/computational stuff discussed in the lectures could be explained more clearly.

I feel that a lot of the material from the lectures are either not covered by the assignments or are mentioned in passing, so it's difficult to test that we have really learnt a lot of the material. Perhaps a weekly quiz or homework instead of two big pieces of coursework would be better for retaining material. Also, for non-coders I feel that the assignments might be quite difficult to grasp even with the help of labs and sites like Piazza.

I hope there would be more information about what this course's going to contain at the beginning of the semester.

I suffered a lot from this course, and actually still suffering from this course. The course said it welcomes beginners of programming, but to be honest the contents are not for beginners. It has to provide pre-requisite that you might need a basic (or intermediate) knowledge of mathematics and programming. Students outside of the School of Informatics actually did not studied Linear Algebra, but the contents are difficult to understand if you did not study Mathematics after high school. What I want to suggest is please, please set out pre-requisites of this course. I know lots of non-Informatics friends who took this course also suffered a lot. If there was a pre-requisite for this course, I would definitely not choose this one.

Lastly, please do not reuse old lecture videos. We pay 9K pounds, and international students pay 20K pounds for the university. Even though it is remote-teaching, recycling old lecture videos is very disappointing.

It needs to be clearer. Many of the initial lectures were just reading the slides and didn't explain the underlying reasons. The readings were extremely complex for those without informatics or mathematics backgrounds. The assessments relied A LOT on being able to code and interpret results, but nowhere in the lectures were we taught about interpreting results or visualizing them.

Making the aims of the course and how it links to programming more clear. Feedback for the assignment was quite overdue and when received, it was limited.

Maybe more interaction in the lectures.

More help for students who have no background in coding would be helpful. As someone who had no prior experience apart from the Intro to CogSci course in semester 1, it was really challenging to complete all the coding exercises, especially the first assignment.

None that I can think of.

Python labs could be more helpful. I was lucky to know programming from before, but I can imagine how hard it was for the students who didn't.

The assignments, the transfer of skills and knowledge from lectures and reading to them just wasn't there. All the functions used without explanation or detail within the assignment were confusing because the documentation was convoluted.

The coding done in assignment 0 was not sufficient to complete assignment 1. In the course requirements I would make some experience in python necessary. Also avoid assessing the course only on coding. Would be useful to have test on the theory that is taught during lectures and not only coding exercises.

The consistency between style lectures felt a bit inconsistent. The style of teaching varied a lot which made it hard to know what was going on from week to week. In general, the later parts of the course felt more organised, but more signalling as to what segments we were diving into/what we were skipping over would have helped. For example, I feel I sometimes got lost in changes between breadth and depth, or whether a particular point related to the previous or was a whole new topic. Next, the two assignments seem vastly different in skillset and difficulty, which I think would be okay, however we weren't really made aware of the style of assignments and that it would change so much. The assignment 0 I feel nowhere near approximated the content or difficulty of the next assignments. The relation of lecture content to assignments also wasn't very clear, and if the lecture content wasn't directly necessary I feel we could have been made aware of this to save a lot of time. Finally, I would also have loved to see more philosophy in the course!

Compile all points together

n/a

The assignments sometimes contain things that are never even mentioned in the course!! How are we expected to successfully get close to an A if we have never been taught what we are tested on.

While I would have liked to have more det is pth into some of the topics, I acknowledge that it is difficult given the introductory nature of the course.
2. Informatics 1 - Cognitive Science  -  

2.1) What advice would you give to a student taking this course in future?

- Be open to the course content without obsessing over how its going to be assessed.
- Be ready to face your own ignorance when dealing with assignments xD.
- Do it as class only.
- Do the assigned reading, understand that the concepts are going to be difficult to grasp, work through assignments early.
- Don't be discouraged if the first weeks are confusing. Re-watching some lecture will definitely clear things up and the knowledge you get will be very satisfying.
- Don't underestimate the difficulty of the assignments. The parts of the assignments don't necessarily relate to one another nor does the difficulty of the various questions. Read the readings but also read outside them because not all information can be found in lectures and readings. Don't count on the time commitment of the course being totally consistent. Interact a lot with lecturers where possible and go to all the labs.
- Enjoy the first part!
- Focus on programming and Lab sessions.
- If you are confident with mathematics, and have some knowledge of programming, go for it. If you are not, please consider one more time before choosing this course.
- Just ask for data at all points, to help you process yours at the end.
- Make sure to do the weekly worksheets and ungraded assignment 0 if it exists.
- Make sure you have a base level understanding of python- or go to the labs if you do not as it is necessary.
- There's always more Python than you anticipate it would have. Prepare to suffer!
- Try and get as familiar as possible with Python/coding in general beforehand so you don't have to learn it on the fly - as trying to learn how to code along with all your other studies is difficult for people with no background in it.
- Use Google! Lots of code is public domain and learning from there as well as from the course organisers and lecturers is invaluable and super handy!
- Lab classes are important for accomplishing your assignment. It's better if you have previous background on coding. IT'S FINE if you know nothing before, but you need to study hard and don't be lazy.
- make sure you know your code, you'll need it more than you think.
- take a lot of notes, keep track of the reading, go along to lectures and q&a. Keep an open mind about studying something less technical for Informatics students, or more technical for PPLS students.
3.2) Please add any other comments you have about workshops, tutorials or labs on this course

- I found tutorials really helpful
- I think materials are difficult to understand and I have to spend a lot of time on it, which affects my studying efficiency
- Lacklustre participation but willing tutors
- No idea.
- The labs were good, but the fact that they could only help with programming was slightly frustrating, given that in some case the hardest part was synthesising lecture content. It would have been easier in person of course, but I feel not many people really interacted in labs since they weren't structured, although the coordinator (Lab 1 Monday) was very helpful when asked specific questions.
- The tutorials were nice, and the workshops too. The labs felt a bit unorganised, but I guess helpful.
- The tutorials were wonderful, and my tutor was really helpful and always happy to answer questions! However the labs felt sort of in inviting. I attended a few and whenever I asked for any help I felt as though the tutor was inconvenienced by my questions.
- Tutorials helped me spark my interest about the subject and to engage more with it. They were definitely useful. Labs didn't always work out with me, probably because I could figure out to coding on my own (thanks to internet resources), and because it was tough to ask questions relating assignments there.
- Tutorials were great. Labs could be better. Maybe allocate some lab time for coding demonstration. Or add some prerecorded demonstrating videos.
- What was the purpose of the lab? It was basically just a Q&A session. Beginners expected some programming lectures and tutorials, but nothing happened.
- Labs are really useful for assignment.
4. Informatics 1 - Cognitive Science

4.1) Please add any other comments you have about the presentation of course materials online and their accessibility.

- The weekly online material was often published quite late
- I felt that the reused recordings from last years' lectures in week 6 and 7 were very disillusioning

For it all being online, it was presented fairly well and I could tell the professors were passionate about the material but struggled with communicating that and getting audience feedback. The website created was confusing at first as usually everything is put on learn for my courses this academic year, however, it was nicely laid out and made things easily accessible.

I hope there could be more materials related to the practical CS bits of the course. This course is fine difficulty wise, but very inaccessible to people w/o computer science experiences.

I liked the website and the lecturers were really helpful with any question I had

I thought the presentation was good once you knew that everything was on the course webpage rather than in Learn itself (despite it having a link I still didn't realise it was there for a few days!)

It was said that we would get notes for the topics, but that website was always empty or half-way done. Moreover, the dates of the lectures were many times 'TBD' and for those who need a very clear schedule, this was quite distressful.

Online content was accessible. Was slightly strange not to know exactly when we would have live lectures and where, but I appreciate the lecturers had a lot on their hands and it wasn't too inconvenient.

Recorded lectures are beautifully done.

The recorded lectures were very useful as they gave me flexibility to watch them when I wanted.

The slides are all very well organised and have just enough detail without being too overwhelming.

The website was a great move

The website was great.

Very well organised and easily accessible.

X

good
7. Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?

- I like that I can pause the pre-uploaded lectures and take my time working through them without feeling rushed, especially if the information being presented is complex.
- I really that all the resources were online, but make sure to make workshops and revision sessions in-person when possible.
- I think online teaching is not effective enough because when I have problems, I cannot get instant response.
- It has worked well for me.
- It was NOT hybrid, it was purely online. People from workshops gradually disappeared, which indicates that online teaching did not manage to engage students to a great extent.
- Live lectures were the best, and asynchronous lectures that were easily accessible on the course site. The course site in general was a hugely successful resource where we could view things relevant to a particular week.
- Most are fine.
- My course was entirely online, so there was no hybrid teaching. Nevertheless, I found working to my own timetable useful as it gave me flexibility, especially as the lectures were recorded.
- No hybrid, all online
  The video lectures worked well
- Prerecorded lectures were really important, as sometimes I couldn't concentrate enough during live lessons. Pausing and rewatching was essential for my understanding of the material.
- Resources on the website were clear and easy to find.
- The live lecture were a great experience as that's the only course that had live lectures of that kind
- The live lectures were far better than the prerecorded lectures the vast majority of the time, and it was definitely worth going to them.
- The mix of synchronous and asynchronous lectures worked well, alongside the Q&As for those who wanted to gain a bit more from the material. The tutorials and labs were not as successful but that is due to the programming-based nature of this course, which makes it hard to get help quickly and clearly.
- having some synchronous lectures and q&as worked well for me
- i can watch videos multiple times.
- the two lectures prerecorded and the one live lecture, really nice way of keeping contact but still letting us watch some videos at our own pace.
7.2) Is there anything else you'd like to tell us about your experience of hybrid teaching and learning on this course that would help us improve our approach?

- I think it would be helpful if the main lecturers held more tutorial sessions, they seemed to generate greater audiences than the TA-s.

- It is a little bit hard to say, since we aren’t really sure what normal teaching is like. Aside that though, timetables were sometimes a bit messy.

- More live events.

- No idea.

- Where lectures are broken into bitesize chunks, it might have been good to know which corresponded to which day or section of material, because with that approach it was a bit difficult to know where a new topic was being started, or which lecture corresponded to which day, if any.

- maybe face-to-face courses are better

- nope.
11. Thank you -

Thank you very much for taking the time to complete this questionnaire. Your response and comments will be fully considered.

- Please provide any additional comments you may have about the course, the teaching on the course or the resources that support it in the box below.

- All the lecturers were great and interesting

- I enjoyed the course a lot, thank you

- Thank you very much for bringing to us this interesting course! Only if we could know more and deal with assignments better lol.

- Thanks for this course!

- X