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?

- Building a software application from the ground up was a very interesting and challenging experience.
- Creating a larger scale system with no handholding.
- Developing a small application from scratch without having too many crutches. Piazza support was the best I have ever seen for any course.
- Doing a proper practical course. This is the first time we did so.
- Freedom in approach.
- Getting to work on a project from scratch all by myself.
- Having to figure out most of it ourselves which was challenging but a great way to apply everything we have learnt up to this point.
- I enjoyed that this course was very independent. Also, the course was very well organised with instruction sheets available very early on. I massively appreciate that automated testing was implemented by instructors to support the students.
- I found that making a project from scratch on my own has brought more faith in my abilities.
- I learnt Java 11, learnt to work with JSON and GeoJSON. This was a fun course. Loved it! Stephen Gilmore was so wholesome and helpful!
- It taught me how to handle an entire project by myself.
- Learning new materials.
- Staff support.
- The course materials were concise, clear and provided examples of code in slides.
- The coursework is very interesting to go through. Professor Stephen is very responsive on Piazza and always willing to help. The aim of the course is well set.
- The extremely quick (and useful) responses on Piazza.
- The feedback and instant help when stuck on a problem.
- The feedback from the first coursework was really detailed and helpful. The course is really well structured and the lecturers were really active and helpful on piazza, they offered to be directly emailed with specific student inquiries in order to resolve issues. Overall, I think the lecturers and course organisers did a great job to support students.
- The freedom to experiment and make mistakes.
- The general help and commitment from Stephen and Paul was fantastic.
- The instructors activity on piazza.
- The lectures/videos were to the point. No waffling and condensed everything very nicely. Piazza was great, and the average response time was 5 minutes which was great.
- The coursework itself was very stimulating and it was nice to have some freedom (within the constraints of the specification).
- The practice experience.
- The process in doing the whole cw on your own.
- The project was very stimulating and the course organizers were very helpful and fast in their replies.
- The project's topic was fun.
- The quick piazza replies by the instructors have been really helpful in answering any questions that may arise during the completion of the coursework.
- The reply on piazza is very fast and this could help us solve problem in a short time.
- The small lectures were very informative, useful, and concise.
- This course gave me the opportunity to work on a large project and learn by doing, while also providing significant support where

1.7)

1. Informatics Large Practical [INFR09051_20-21_SS1_SEM1_ONLINE_CACORE19] -

1.6)

1.5)

1.4)

1.3)

1.2)

1.1)
needed.

- have fun and hard times building drone algorithm
- programming skills and self-learning
What improvements, if any, would you make to the course?

- A bit more elaboration and examples in the coursework document.
- Add in a revision period at the start on Java and general computing concepts. Difficult for some after such a long time between INF1-OOP and ILP.
- An extra lecture or two on more general application building advice, i.e., what are the best ways of structuring code etc.
- Better and more detailed feedback for coursework 1 and how the marks for readability are distributed and an explanation of what is expected.
- Considering the fact not everyone has taken the software engineering course, it will be nice to give students some ideas about how to design their software structure, write better code and maybe write documentations too. As a math&cs student, I was struggling a bit.
- Enjoyed every bit of it. Perhaps a bit more specificity in what’s regarded as good coding practice.
- Give better requirements on the readability part of the report as a lot of students lost marks for stuff they did not know they had to make.
- Give more guidance on some other libraries we could use to do the project and on how to write the report.
- I haven’t noticed anything which I personally think needs improved.
- I think it could be more demanding.
- I’d suggest having lab/TA sessions of 30-45 minutes across the week instead of two 2-hour blocks.
  - Allow people to choose Python?
- If we could have more interactive sessions with the lecturers, that would have added an additional level of engagement.
- Maybe suggesting more libraries that could be helpful.
- N/A
- None it is a very good course.
- Release all lectures from the beginning on. There are some people who may like to start early because they are not too confident in their programming skills, and those would benefit most from the lectures. True, if you want to start early, you can also research things yourself, but again, it would help those who are not too strong at programming.
- Specific the requirements in the coursework clearly. Marks get deducted for something that is not said in coursework.
- The amount of work needed for the project was not enough for it to have a course of its own.
- The section on the coursework document about what was required in the report was too short. I spent too long deliberating what was wanted of me and this wasted a lot of time. It should’ve been clearer what the report required.
- nothing, it is one of the best organized courses I have ever seen.
- stephen gilmore can be less rude at Piazza if students he doesn’t like ask questions that are answered, he can be less bias to students he like and not to put good question mark in Piazza even its a dumb question.
2. Informatics Large Practical -

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

- As always: start early
- Definitely worth taking if you're into software engineering
- Do planning
- Don't postpone working on the project.
- It is a nice course. Do not leave it until the end and do watch the lectures: They have important material and if you do not watch them you may lose some marks by making some silly mistakes you could have checked pretty easily otherwise.
- It's like building hackathon projects. If you're afraid of working on large projects, go to some hackathons to understand what this course will be like, and don't stress out if you haven't started the project and you have a week left. I finished most of the coursework 2 in a week. (40 hours)
- Know how Java works really well.
- Lecture is important
- Make a timetable and organise your workload into smaller tasks.
- Make sure not to wait too long before starting the coursework.
- Maybe start early?
- Practice Java. Start early. This isn't a practical you can finish in 2 weeks. It supposed to take the entire semester.
- Revise INF1-OOP in advance of the course start
- Start coursework early, go to lab sessions
- Start earlier than you think and look at the slides first
- Start early and consistently work through it throughout the semester as doing it last minute can be very overwhelming
- Start early to avoid stress at end of the semester
- Start early, submit early
- Start early, this project is large. Chances are you will run into problems that will cause you to need to take a break and think about, or you'll encounter a bug you need to spend time fixing. You will also have other coursework you will need to complete at the end of the semester, which also takes time.
- Start early.
- Start the coursework as soon as possible. Even just to try little code running as expected
- Start the coursework early. It takes a long time. Personally I started late and had to over-work to actually finish it.
- Start with the coursework as early as possible, even if just for a few hours once a week, and take full advantage of the labs, especially the ones not close to one of the deadlines as they will be quieter and the instructors are extremely helpful.
- Start work early, think it through. Leave enough time for writing the report.
- Start working on the assignments on time and use Piazza.
- Start working on the second coursework early!!!
- The workload is truly manageable, follow the specifications exactly.
- You will learn valuable skills.
- Learn java and improve logic
- Spend more time on programming
- Start early, carefully read the coursework instructions multiple times, and test your own code - don't just assume its correct
- Start the coursework as early as possible
3. Informatics Large Practical -

3.2) Please add any other comments you have about workshops, tutorials or labs on this course

- All the information was in the coursework document so I only had to access the labs once and I got the answer that I required.
- Did not participate in any.
- Great teaching assistants!
- Mainly I used Piazza, which was very helpful
- None
- Saying that parts 1 and 2 of the coursework are distinct but then taking marks off if a function in CW1 cannot be recycled easily in CW2 which happened to friends of mine seems contradictory.
- no
4. Informatics Large Practical

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

- All very well laid out.
- Everything perfectly clear.
- Everything was easily accessible.
- Everything was easy to access and there were many helpful things in the slides
- Good
- I liked the format of lectures being posted every week at the start.
- Lectures were very clear and straight to the point which was very good
- Materials were easy to find. If there was a higher amount of materials I would prefer looking for materials in a table where each row would have corresponding items as slides, lecture and documents.
- No issues with accessibility
- The Learn page of the course was well structured and resources were easy to find.
- The lecture material gave everything you needed (ie. functions) but left it so that you had to figure it out on your own so still allowed you to learn.
- The presentation was good and the material is easily accessed.
- The videos were great. Always to the point and concise.
- There was a bit of confusion about the correct teams room for labs.
- Very neat Learn page, easy to navigate.
- good!
- ok
Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?

- Course is
  - Everything worked perfectly fine. Didn’t struggle with the hybrid at all. I like being able to work at my own time
  - I've only worked remotely and I think it was great!
  - ILP is well suited to online learning. It helps that the coursework instructions are made available very early on.
  - It was a delight from start to end
  - It worked very well.
  - More flexible on my own time
  - No hybrid learning, everything is done online.

- Since this course is essentially self-teaching anyway, this is the perfect course for online classes. Piazza support was incredibly good!

- The course was entirely digital. While I didn't use the workshops etc. I liked that they were available and felt like I knew where to go if I needed help.

- The course was entirely held online. However, the lecturers did their best to assist students with set up issues to ensure everyone has set up their project correctly.

- The lack of in person material for this course wasn't really a problem since you are primarily learning through doing the coursework. The piazza discussion forum being very active was extremely beneficial for asking questions and seeing the answers to problems other people had.

- The short tutorial videos and quick piazza replies compensated for no in person classes.

- This course was suitable for online work, as it was an individual practical. Piazza worked really well, as did the lectures (they were short and relevant)

- Very nice, I like working from home even if finding motivation is quite hard sometimes.

- Would not have been any need for in person lectures for this course

- hybrid leaning and teaching works fine for me, but for that the tutorials or the workshop, i hope i were in class and discuss face to face

- Its good. save time traveling
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?

- Keep doing what you're doing
- Quite good already
- Stop calling it hybrid learning as it involves zero in-person contact.
- This question makes no sense. There was no hybrid about it. It's all online.
- stephen gilmore is very responsible in Piazza
10. 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.

- Coursework asks for readable code. However, your marks will be deducted no matter how you organise and comment your code if you don't do what they want. For example, marks will be deducted if students don't use the `VAR` keyword in Java no matter how organized or how they make comment about their code. This is clearly not a requirement for readability. It just asks you to use something that has been told in the lecture.

  This is just one of the examples. In short, requirements in the coursework need to be specific clearly.

- I found Dr. Gilmore very helpful however I have noticed that he can be quite stern in response to Piazza questions that relate to content that can be found in the coursework instructions. This is understandable but I think this could potentially affect other students willingness to approach. I didn't register Dr. Jackson's involvement in the module but I have no doubt that he was very organised and helpful.

- I really appreciate how quickly Dr. Stephen Gilmore responds to our queries and usually the answers are quite informative.

- Just a very good course in general

- Lectures were very helpful and piazza was used very well

- One of the best courses.

- Thanks for answering the questions so quickly on piazza!

- The two lecturers are super helpful

- hello