Informatics Student Course Feedback 2020/21
http://www.inf.ed.ac.uk/teaching/surveys/2020-21

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/1Cq0V2Y)

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.
What did you find most valuable about the course?

- I could learn a lot from this course.
- It covers different parts of knowledge as many as possible, which makes students improve comprehensively.
- Learning about IoT and how to implement it
- Process of developing an end to end system. The lectures were also really interesting and all course staff really friendly and conscientious
- The course is very complex and teaches a lot interesting aspects of software development. The coursework was very intense but it definitely gave me new skills.
- The presented topics were interesting. It was very nice that when we asked for extra labs the course organisers were willing to help.
- The tiny amount of embedded development we did was valuable, as it was what I chose the course for.
What improvements, if any, would you make to the course?

1. The workload is too much for us -- a whole individual project that needs knowledge of many aspects, lectures/quiz each week, a lab with 3 hours a week, and a final exam...
   And it is extremely hard for people who starts everything from zero as a helpless individual.
2. Please do not set this course as a compulsory course for students from MSc Cyber Security, Privacy and Trust. Superficially, it is not a compulsory course but we have no other choices. And when I was a naive Y4 student and applied for this programme, I didn't imagine that I need to finish all these things under a high level of mental stress and cry everyday...

First of all, the coursework required much more work than I would expect from a course. I had no time to do my other courses in the last 3 weeks.
During working on the coursework I learnt a lot, however, felt that there were numerous topics I had to discover and solve alone including data processing, machine learning training and Google Cloud using. About these topics, the course hardly provided any help. This coursework could be challenging in teams when each of the teammates has to solve some challenging tasks, but in this way, I felt overwhelmed and alone. The feedback of the coursework, unfortunately, did not help mitigating risks which I was not aware of (ML model, dataset)

Having done the PDIoT course last semester where the course there was also to develop a human activity recognition system I think it would have been better to coordinate between these two courses so that we were doing something different in each as IoT is a very broad field. I have a feeling that this was due to covid and not being able to supply kit with restrictions so is understandable at the short notice. The quizzes often felt like they were deliberately trying to trip us up, they improved as the semester went on

If the project could be completed in the form of group, it will be better and the quality of the prototype could be higher.

The coursework has far too many components which are unrelated to the stated learning objectives and description. The android development and/or the machine learning components should be removed so that students can focus on learning about IoT systems.
The (almost) weekly tests should be announced better, as no reminders are given, and since they are not every week it is easy to miss them.

The idea to have the otherwise group project carried out as an individual project was very bad idea. I wasn't able to complete the coursework completely and parts of it were open ended as well, which meant that a lot of research had to go into the implementation. I think for those who didn't use any technologies that are required for the coursework, it is largely impossible.

The overarching coursework, or CW3, is extremely challenging and requires an obscene amount of work to complete with all of the requirements. It takes knowledge and skill from three different systems/APIs, multiple coding languages, and (to get top grades) advanced levels of networking. It really should be group work for two or even three students. This is from personal experience comparing it to other courses of an SCQF 11 level.

Tutorial for some aspects of the project
2. Internet of Things Systems Security and the Cloud (IoTSSC) -

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

- For the coursework try to get the barebones of a system as soon as possible. Don't get caught up in trying to produce a near perfect machine learning model or interface. Set up the systems then improve it once you have that underlying system.

- If you don't understand something about the project and expect to learn it by yourself from scratch just drop this class if not you will neglect other courses and fail in many classes because of this.

- It is a little hard but you will achieve a lot.

- It may be difficult but you can learn a lot and gain a sense of achievement.

- Large components of this course are android development, and machine learning. The "cloud" component consists of a $50 coupon for GCP, and the instruction to "go read the documentation". This course has little to do with embedded development and connectivity. The coursework is focused on a specific product called the pelion platform.

  If you plan to take this course, you should have a background in machine learning, and some experience of android development.

  This course covers a very broad range of topics, so is really an introduction to several topics.

- Only take this course if they reintroduce the coursework as a team project or they decrease the workload, because I found the course overall stressful, and sometimes unfairly challenging.

- Prepare to be a slave to this course's coursework if you want top grades.
3. Internet of Things Systems Security and the Cloud (IoTSSC) -

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

- I missed the cloud lab because it was on an irregular schedule and they didn't have proper documentation of it, that would have allowed me to catch up.

- Some tutorials did not have any connection with the project.

- The Labs originally had no solutions to them, just a list of things to do during the session. This changed after some feedback from the class so a Github repository was created with some solutions. However, only some of the labs have solutions and others have nothing. Also, we had to ask for, as it was not planned, a lab on google cloud even though that is a major part of the coursework.

- The lab demonstrator was helpful but the content of the lab was slightly less related to the coursework than I think it should have been. A lot of people lacked machine learning skills and I think a lab on this before the second coursework was due would have been helpful. The lab about getting a basic system running for the coursework was extremely helpful.

- The tutor was really helpful. Some of the early materials helped a lot in finishing the coursework as well as the extra labs. Unfortunately, there were several labs where the topic had a little connection to the coursework (i.e. Bluetooth labs).
4. Internet of Things Systems Security and the Cloud (IoTSSC)

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

- Nothing
- Slides were very well organised and well presented
- The course material overall is well presented and enjoyable
7. Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?

- Having materials available online is useful.
- None
- Nothing on the experience was hybrid but I think that this course did the best that it could while online
- The quizzes each week force you to keep up-to-date on the lectures which helped keep my productivity up through the semester.
- We had online teaching and as I said group work could have still been practiced which would have made the experience so much better.
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?

■ All explained above.

■ Deadlines need to be announced far in advance, many of us are unable to access study areas without planning in advance. We were not notified of key dates until a week beforehand in some cases.

■ It is really hard to make a progress and hybrid teaching is just really hard to adapt
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.

• Overall I had no problems with the lectures and lecturers themselves, but I believe the coursework was way too hard and complex, and help and support provided to it was not sufficient in my opinion.

• Really friendly and helpful course staff, this really makes a difference, thank you all!

• There are many aspects on this course especially in the project where it is not explain in the lecture and in this current time it is really hard to find a balance.