University of Glasgow | School of Computing Science

Assessed Coursework

Course Name	HCI4			
Coursework Number	1			
Deadline	**Time:**	16:30	**Date:**	28/11/18
% Contribution to final course mark	20%		**This should take this many hours:**	58 hours
Solo or Group ✓	**Solo**		**Group**	✓ **Threes**
Submission Instructions	**Submit through Moodle.**			
Who Will Mark This? ✓	**Lecturer ✓**	**Tutor**	**Other**	
Feedback Type? ✓	**Written ✓**	**Oral**	**Both**	
Individual or Generic? ✓	**Generic ✓**	**Individual**	**Both**	
Other Feedback Notes	**Feedback, but also on a demo in the lab**			
Discussion in Class? ✓	**Yes ✓**	**No**		
Please Note: This Coursework cannot be Re-Done				

Code of Assessment Rules for Coursework Submission

Deadlines for the submission of coursework which is to be formally assessed will be published in course documentation, and work which is submitted later than the deadline will be subject to penalty as set out below. The primary grade and secondary band awarded for coursework which is submitted after the published deadline will be calculated as follows:

(i)   in respect of work submitted not more than five working days after the deadline
   a.   the work will be assessed in the usual way;
   b.   the primary grade and secondary band so determined will then be reduced by two secondary bands for each working day (or part of a working day) the work was submitted late.
(ii)   work submitted more than five working days after the deadline will be awarded Grade H.

Penalties for late submission of coursework will not be imposed if good cause is established for the late submission. You should submit documents supporting good cause via MyCampus.

Penalty for non-adherence to Submission Instructions is 2 bands

You must complete an "Own Work" form via
https://webapps.dcs.gla.ac.uk/ETHICS for all coursework
UNLESS submitted via Moodle

HCI4 AX

Using Digital Health Data

Aim: To develop an interactive system that monitors, encourages, analyses or supports people's health.

Your job is to come up with an interactive system that allows people to monitor, understand or support good health, or otherwise uses health data to make their lives more enjoyable or productive. This could be mental health and/or physical health, as both are hugely significant but problematic aspects of modern life. To give you some examples: your idea could be to aid in health management, to help people live their everyday lives more healthily, to learn about health in new and interesting ways, or to support analysis of health resources at a national scale. Many resources, such as data sets, APIs and toolkits, are available, but we are especially keen on the use of data from one or both of these web sites:

Scotland: https://www.opendata.nhs.scot/dataset

Singapore: https://data.gov.sg/dataset?groups=health

These sites' data could be what you work with, or you might combine it with other data (e.g. from phone sensors) … or you might choose some other source of data altogether. In the end, it is up to you to decide what you want to use, and what you want to make… but in your presentation and report you will have to **give an argument for your choice**. You can consider this as being like a 'pitch' for your new development project or start-up, convincing us that your design idea is both feasible and interesting.

You *must*, however, make your work relevant to the course material. **Your design must be one or more of the following types of system: multimodal, CSCW or information visualisation**. This means, for example, that a simple phone app will not be acceptable unless it uses tactile or audio interaction (to make it multimodal). The same would apply to a web page or desktop app that was for a single user in isolation (i.e. not CSCW), and which used such simple text/graphics that it could not be fairly called 'visualisation'. Note again that we are happy to discuss your design ideas, to help you find something acceptable.

This coursework will be **done in threes**—please organise into teams yourselves. If you have a problem finding a team, then let us know and we will help.

To ensure you have a good plan, we make ourselves available for discussion — for Glasgow students in the 3rd lecture slot in week 7, and for Singapore students via online meetings in week 6 — so that you can talk through your ideas with us, if you need to. In addition, you can email us at any time.

By the end of **Friday of week 7**, each team should email either Matthew Chalmers (UG students) or Jeannie Lee (UGS students) an outline of their idea. This is so that we can make sure that no one is stuck. We will also give some feedback on your ideas. We know that coming up with a good idea, and implementing and refining it, are difficult. Matthew and Jeannie will be available on an individual basis to talk about (or email about) AX issues.

The time for the assessed exercise is relatively short so you may not be able to build a fully functioning system. Your work should focus on interaction/experience design. Faking some background functionality, if you need to, is fine! Again, talk to us if you are not sure about this. However, we do want to see some kind of running demo as part of your group's **presentation in Week 11**—again, think of this as a pitch, to convince us that your design concept is strong and viable. The last lecture is in Week 7, and after that you can use all of your HCI4 time for the assessed exercise.

Initial Designs

Start the process by coming up with several ideas and then sketching out rough paper prototypes. Talk about them with your group colleagues. Compare them, learn from their similarities and differences, and maybe even combine their best features. You can also quickly evaluate these prototypes using things like Heuristic Evaluation and Think Aloud. Try and test with people who are in your target user group, rather than just classmates. We will put up the notes from a previous year on Moodle so that you can get a reminder of some of the techniques you might use. If your prototypes do not work well or don't seem interesting, then start again — that is the beauty of paper! Keep these versions though, so you can include them in your report. In your report, we want to read about the process of design as well as the final product.

Implementation

When you have selected one good paper design, you can start to implement it. Use **any language/OS/platform you like**, although it might be a good idea to use something you are familiar with due to the short time available. Also, remember that you will have to demo it in a university lab, so ensure that whatever you use will run there. Please do not spend *all* of your time implementing; this won't get you the best marks. You need to show your design process and evaluation too.

Evaluation

We want you to evaluate the prototype you implemented to show that it works, and refine it if necessary to make it even better. Evaluation should occur with real end users if you can manage it. These evaluations should be more controlled than those you used for the design part, perhaps using the experimental evaluation techniques presented in lectures. We want you to use (and report on) evaluation techniques appropriate to your progress with the system design, so you should justify and explain your evaluation choices.

Demo

You will demo your prototype to your lecturer in the lecture slots in the last week of term. Each group will have a 5-minute slot to show off the system you have developed, what it can do, and explain **why it's a good design**.

Report

Your report should be a maximum of 10 pages. It should include information about your design process, the stages of implementation you went through, and the evaluations you did of the implementation. You should also reflect on the system you designed and show how it might be improved in the future. In addition to these 10 pages, you can use appendices to store additional information, e.g. detailed evaluation data, or large/complex architectural diagrams. If you are in doubt about what is 'additional', talk to us.

Marking Scheme

30% for design
20% for implementation
25% for evaluation
10% for demo
15% for overall report

Hand-in

This will be handed in through Moodle. We will set up a submission page nearer the deadline. If you want to include material showing your prototype(s) in action, or other digital media, then include a URL to a file/video sharing site.

Hand in date: 28/11/18, 16:30 (UTC)