

# **Course Handbook: Case Studies in Design Informatics 1, 2023/24**

Version 1.2 – updated 9<sup>th</sup> October 2023 by John Vines

## **Overview of the course**

Case Studies in Design Informatics 1 (CDI1) is a 20-credit course taught at the University of Edinburgh as part of the MSc / MA in Design Informatics. The team of lecturers consists of John Vines (Course Organiser) and Susan Lechelt. As well as being mandatory to students on the MSc / MA in Design Informatics, if there is space it is also offered as an elective to other students across the School of Informatics and Edinburgh College of Art.

The course is taught at Masters Level (SCQA Level 11). It has no specific requirements for pre-requisite knowledge before the start of the course. Some of the material will be familiar to some people, especially those with a background in design, user experience or human-computer interaction.

The course takes place in Semester 1. We are quite a large course of around 60-90 students. The course is delivered through a combination of in-person lectures with interactive discussion elements, tutorials and crit sessions with senior students.

This course is delivered using a mixture of learning methods. Each week, you will receive a core resource, which may be written materials (e.g., published articles), podcasts, videos, and brief recorded presentations. Other weeks you may receive a prompt to consider, and gather some material yourself on. These materials will help you prepare for the weekly lecture. Each week you will also be asked to complete a short reflective activity in the form of a “3-2-1” Questions, Comments and Ideas on Microsoft Teams before the start of the next week.

The requirements for each week will be available on the Open Course Materials site for CDI1 by end of Monday morning of the previous week. This means that we will start with the Materials for Week 1 and Week 2, materials for Week 3 will be published on the Monday of Week 2, and so on.

## **What is the course about?**

Case Studies in Design Informatics 1 (CDI1) introduces students to contemporary examples of design informatics. Design informatics is a relatively new field, which works at the intersection of “design thinking” and “computational thinking” – focused on the creation and design of new data-driven products, services and systems using human-centred and design approaches.

CDI1 then has two overall aims. First, it aims to inspire students about this new field, through providing examples of case studies of design informatics in research and practice to explain what it is. We will try to get you to consider data and technology in new ways, challenging what we assume “data” is, and to also consider the human experience of such data. You will be asked to consider case study examples of design informatics, and to critique and analyse these.

Second, it aims to provide students with foundational knowledge of design processes and how to use design research methods in projects that relate to design informatics. We will introduce you to different types of *design research*, and ask you to compare these. You will also be introduced to a foundational design research method that is often used in design informatics projects, and design the materials for a fictional user study where you use this method.

The course content is structured around three parts that relate to these above aims. Part 1 focuses on introducing the foundations of design research and design thinking. Part 2 introduces a range of case study examples of technologies and application domains relevant

to design informatics. Part 3 brings this together by introducing a design research method – Probes – and supporting students in applying this method in relation to an application domain that interests them.

## Where will we meet?

### Lectures

The lectures for CDI1 are on Monday (15:10-17:00). We will start promptly, as the 10-past the hour start time exists to ensure you have time to get from any prior class.

The lectures will be in-person, in the Meadows Lecture Theatre in the Old Medical School building ([https://www.ed.ac.uk/timetabling-examinations/timetabling/room-bookings/bookable-rooms3/room/0113\\_00\\_G.07](https://www.ed.ac.uk/timetabling-examinations/timetabling/room-bookings/bookable-rooms3/room/0113_00_G.07)).

### Tutorials

Tutorials for CDI1 start in Week 3, and will be conducted in smaller groups (of between 10-20 students each). Tutorials will be conducted on campus and in-person, and will be 80 minutes in length. You will be allocated a Tutor Group at the start of Semester 1; once allocated we will not be able to move you to another group.

## What does a typical week look like?

- Mondays at 17:00: If there is class the following week, the pre-work for that week comes out. For example, the pre-work for Week 2 comes out on Monday of Week 1 at the end of the lecture. We will not have any pre-work to be done in advance of Week 1.
- Monday afternoon, 15:10-17:00 UK time: Shortly before class, the slides are uploaded to the Open Course Materials site for CDI1. Class itself starts at 15:10, to give everyone time to move between classes.
- Friday, before noon (12:00) UK time: you should complete your weekly “pre-lecture” work, as well as your weekly “post-lecture” reflection.
- On Weeks 3+4, 6+7, 9+10 there is a tutorial. Go to your tutorial channel on Teams, once you have been allocated a group. The tutorials are in-person but will use Teams for capturing some of the activities.

## Syllabus

### Lectures

Week	Day	Who	Topic
1 (w/c 18 <sup>th</sup> Sept)	Mon	JV/SL	Course Introduction + Introduction to Design Thinking
2 (w/c 25 <sup>th</sup> Sept)	Mon	JV	Research into, for and through Design
3 (w/c 2 <sup>nd</sup> Oct)	Mon	JV	Ethical Design Practice
4 (w/c 9 <sup>th</sup> Oct)	Mon	SL	Case Studies in IoT and Sustainability
5 (w/c 16 <sup>th</sup> Oct)	Mon	SL	Case Studies in XR and Cultural Heritage
6 (w/c 23 <sup>rd</sup> Oct)	Mon	SL	Case Studies in LLMs and Creative Industries
7 (w/c 30 <sup>th</sup> Oct)	Mon	JV	Case Studies in Blockchain and Civic Participation
8 (w/c 6 <sup>th</sup> Nov)	Mon	JV	Case Studies in Autonomous Systems and Ageing

9 (w/c 13 <sup>th</sup> Nov)	Mon	SL	Probes in Design Research
10 (w/c 20 <sup>th</sup> Nov)	Mon	JV	Co-Design in Design Research
11 (w/c 27 <sup>th</sup> Nov)	Mon	SL	Q&A refresher session

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**JV:** John Vines - **SL:** Susan Lechelt - **MW:** Maria Wolters

### Tutorials

Week	Tutorial
3 (w/c 2 <sup>nd</sup> Oct)	How to use the ACM Digital Library
4 (w/c 9 <sup>th</sup> Oct)	How to analyse a case study
6 (w/c 23 <sup>rd</sup> Oct)	Analysis of a case study #1
7 (w/c 30 <sup>th</sup> Oct)	Analysis of a case study #2
9 (w/c 13 <sup>th</sup> Nov)	Cultural Probes #1 - Design
10 (w/c 20 <sup>th</sup> Nov)	Cultural Probes #2 - Feedback

### Assignments

CDI1 is marked using the University of Edinburgh's Common Marking Scheme. This means that a grade of 80 and above is outstanding, a grade of 70-79 is excellent, a grade of 60-69 is very good, and a grade of 50-59 is a pass at Master's level.

Below is an overview of the coursework assignments – please see the detailed coursework assignment brief more further information.

#### **CW 1: 50%**

CW1 consists of the following parts:

- **CW1.1: Comparing two different approaches to design research (5%).** This is an initial simple PASS/FAIL coursework to see how well you and search for and cite literature on the ACM Digital Library, and to give you an opportunity to review and compare two examples of published literature that you have identified as using different approaches to design research. This assignment will involve searching for and citing two papers, and writing a short (300 word) review of how the approaches reported in the papers compare. Grade: pass/fail. A pass is translated into a mark of 80. Late Submissions: not accepted. Extensions: none. To be found on: Blackboard LEARN, Assessment -> Assignment Submission -> Group Assignments. Deadline: 9<sup>th</sup> October 2023, 12:00.
- **CW1.2: Case study analysis reflection and analysis (45%).** A 1000 word report that analyses a design informatics case study, with a focus on an ethical, legal, social, or design aspect(s) of the project. The case study should examine one of the data-driven technology case studies presented in CDI1 in relation to a specific application domain. Grade: Marked using common marking scheme. Late Submissions: yes, but with penalties, see ITO policy on LEARN. Extensions: none. To be found on: Blackboard LEARN, Assessment -> Assignment Submission -> Group Assignments. Deadline: 8<sup>th</sup> December 2023, 12:00.

#### **CW2: 50%**

CW2 consists of the following parts:

- **CW2.1: Portfolio of materials for Probe study (45%).** A four page design document that provides an “annotated portfolio” of the materials that will be used to conduct a “fictional” design research study in a chosen design informatics application domain. You also need to submit a one-page plan for how the materials will be used in a project, and a 500 word reflection describing the rationale for decisions made in the

design of the materials and the plan. Grade: Marked using common marking scheme. Late Submissions: yes, but with penalties, see ITO policy on LEARN. Extensions: Central University Process. To be found on: Blackboard LEARN, Assessment -> Assignment Submission -> Individual Assignments. Deadline: 9th January 2023, 12:00.

- **CW2.2: 3-2-1 Weekly engagement in pre- and post-lecture activities (5%).** Each week, every student must submit (a) a response to a prompt set in advance of each lecture and (b) write a short reflection on three things they learned from that weeks materials. This runs for nine weeks, starting from Week 2. Grade: number of valid questions and comments submitted multiplied by 10. Late Submissions: not accepted. Extensions: none. To be found on: Microsoft Teams. Deadline: 12:00 (midday), Friday, each week from Week 2.

## Course Readings

The course has very few mandatory readings set out at the start of the course. There are two suggested “essential” readings which will be referred to at times – plus also an additional recommended reading.

To view and access these, please visit the [Resource List](#) page for the course.