

# Assessment Information/Brief 2022/23

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| Module title | Web Dev and HCI |
| CRN | 33286 |
| Level | 4 |
| Assessment title | HCI Assignment part (Trimester 2) |
| Weighting within module | This assessment is worth 50% of the overall module mark. |
| Submission deadline date and time | 20/4/2023 by 4pm |
| Module Leader/Assessment set by  Lee Griffiths, contact via Microsoft Teams | |
| How to submit  The deliverables described below must be submitted via Turnitin to Blackboard, as a single PDF or Word document, by the submission date for assessment. | |
| Assessment task details and instructions    The goal is to provide a design solution for a limited selection of features of a high school check-in system based on a touchscreen device running MS Windows. Your design must offer the lowest barrier to entry flow using the device’s touch interface so that the users can quickly enter, review and complete their check-in.  All user interactions should be carried out via the touchscreen device (no physical buttons available). You may use text, images, symbols and animations where necessary to convey the meaning and input requirements of each screen.  You need to produce a design solution for the software user interface with respect to users performing the functions outlined below and to keep within the physical constraints imposed by the device and operating system (OS). Your design must be produced and justified using **background research**, **task analysis**, and the **PHEA methodology** (see lecture notes) for error tolerant design as presented in the lectures. As the human factors and UX practitioner you must evaluate the available technology and design brief in terms of error vulnerability and devise the most appropriate solutions in order to provide the highest possible tolerance to user error and most convenient user journey.  **Technology:**  Your system should be designed to operate on an 21” multi-touch screen enabled device in landscape orientation. The device will be running Windows 10/11 OS with a 1920 x 1080 pixel resolution display (landscape). All interaction must be carried out via the screen, however, you may devise any kind of on-screen software control that you feel is appropriate to the typical usage scenario which you are investigating. For prototype testing there are touch screens available in our computer laboratories.  **Functions:**  You are to design the interface with the following functions in mind:   1. Welcome screen encouraging a start to the check in 2. Choice of Staff / Student / Visitor options 3. For Visitors: entering their name and choosing a Staff name they are visiting from a list available, then taking a photo from a built in camera tool and confirming this is ok. 4. For Staff: choosing a name from a list and confirming to complete. 5. For Students: choosing a year group (7-11) then Form ID (from four per year) and then student name from appropriate lists and confirming to complete. 6. Cancelling from any point to return to the Welcome screen.   The prototype design solution should start from Welcome screen encouraging a start to the check in process for any type of user. The prototype design solution must include error dialog (messages, screens) where appropriate. You do **not** need to design or implement any other features of the device other than the functions detailed above. You do **not** need to implement a database or a real working system, but a prototype working system which behaves like a real system so it will provide a realistic experience for your test users. You will find a list of suitable basic data for your prototype at the end of this document brief. Instruction on how to use this data will be given in lectures and workshops. Help will also be given with regard to programming a camera system.  **Deliverables (written work to hand in via Turnitin)**  1. Problem research  Design description and references to appropriate design and usability theory beyond Task and Error Analysis. E.g. journal and conference papers, theory books, case studies. (5 pages) **(20 marks)**  2. Hierarchical Task Analysis diagram **or** structured task list covering an interaction design for the above functions. (2 pages) **(20 marks)**  3. Error Analysis table detailing predicted error modes and proposed design suggestions relating to the task analysis solutions. (3 pages) **(20 marks)**  Continued on the next page.  4. Diagrams of your prototype screen designs sketches including any features and messages taken from your error table and other design research next to corresponding screen shots of your functional prototype demonstrating the sophistication of your application – E.g. layout each screen description like this 👉  Proposed designs that do not relate to the error table and have no other form of design rationale will receive low marks for part 4.   (table format, as many pages as necessary) **(20 marks)**  5. Evidence of user testing (5 users) with conclusions and brief summary of subsequent design modifications and recommendations.You should seek out an appropriate cross section of user types including age and ability etc. and gain their permission. You need to demonstrate that your users were using the prototype built for part 4. Photos and a description of users operating your system is an appropriate way to demonstrate this. No need for name, age, gender etc. (3 pages) **(20 marks)**  **Total 100 marks**  For your written deliverable, pages **must** be structured as follows adhering to the page limit per bullet point:   * Opening page with name and roll number on and Introduction paragraph (1 page). * Research discussion (2 pages minimum, 5 pages maximum). * HTA diagram (1 page minimum, 2 pages maximum). * Error Analysis table (1 page minimum, 3 pages maximum). * Prototype design sketches/images with feature justification showing proposed design for each screen with working prototype screen shot next to it (as many pages as necessary but probably not more than 6). * User testing description, evidence of testing and conclusions (1 page minimum 3 pages maximum). * Copy of the Marking (page 5 of this assignment brief - see below) highlighted showing a self evaluation of your submitted work.   Maximum number of pages expected is 20-22. Present your work concisely. | |
| Assessed intended learning outcomes (ILO)  On successful completion of this assessment, you will be able to:   * Apply industry-standard techniques for analysing human-computer interaction. * Design and prototype user interfaces | |
| Module Aims   1. To introduce the theory and practice of website design and development (Trimester 1). 2. To develop knowledge an understanding of human-computer interaction and techniques for designing and analysing user interfaces. *(this assignment)* 3. To provide practical experience of designing, developing and testing a website. | |
| Feedback arrangements  Marks and mark breakdown will be placed on Blackboard. Feedback verbal/written can be obtained on request via Microsoft Teams. | |
| Support arrangements  You can obtain support for this assessment by **attending all timetabled sessions**, contacting the module leader via Microsoft Teams. During busy parts of the teaching period replies may take several days.  askUS  The University offers a range of support services for students through [askUS](http://www.askus.salford.ac.uk/).  Good Academic Conduct and Academic Misconduct  Students are expected to learn and demonstrate skills associated with good academic conduct (academic integrity). Good academic conduct includes the use of clear and correct referencing of source materials. Here is a link to where you can find out more about the skills which students require <http://www.salford.ac.uk/skills-for-learning>.  **Academic Misconduct is an action which may give you an unfair advantage in your academic work. This includes plagiarism, asking someone else to write your assessment for you or taking notes into an exam. The University takes all forms of academic misconduct seriously. You can find out how to avoid academic misconduct here** [**https://www.salford.ac.uk/skills-for-learning**](https://www.salford.ac.uk/skills-for-learning)**.**  Assessment Information  If you have any questions about assessment rules, you can find out more [here](https://www.salford.ac.uk/askus/academic-support/student-handbook/your-studies/course-support/assessment-and-feedback).  Personal Mitigating Circumstances  If personal mitigating circumstances may have affected your ability to complete this assessment, you can find more information about personal mitigating circumstances procedure [here](https://sss.salford.ac.uk/).  Personal Tutor/Student Progression Administrator  If you have any concerns about your studies, contact your Year Tutor or your Student Progression Administrator.  Detailed marking scheme is on the next page. | |

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| Assessment Criteria for HCI part – Semester 2. You should look at the assessment criteria to find out what we are specifically looking at during the assessment.  Note that this is only a guide to marking – credit will be given where appropriate, particularly over 70%.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Mark range %** | **Very Good (1st) 70-100%** | **Good (2.1) 60-69%** | **Fair (2.2) 50-59%** | **Adequate (3rd) 40-49%** | **Unsatisfactory 0-39%** | | **(1) Research  (20 marks)** | More than four good quality references such as from ACM SIGCHI, JBIT, real case studies, ISO 9241 and proprietary documents presented in a critical manner and related directly to elements of the design. | Four good quality references such as from ACM SIGCHI, JBIT, real case studies, ISO 9241 and proprietary documents. | Three or four design references with acceptable quality references such as conferences, books or proprietary documents. | One or two design references, average quality references such as websites or Wikipedia. | Little or no design justification no references. Links to poor quality material. | | **(2) HTA diagram**  **(20 marks)** | Accurate task analysis with high level of task breakdown. Not repetitive and well thought-out. Detailed plans and correct Task numbers. | Good task analysis with significant level of task break down for all features of the design. Plans for each detailed subtask. Task numbers. | Adequate task analysis covering all features of the design. Plans for each expanded subtask. Task numbers. | Basic task analysis.  Some plans included.  Some Task numbers. | Very simple task analysis for limited number of actions or breakdown. Incorrect notation and missing analysis, plans, task numbers. | | **(3) Error Analysis**  **(20 marks)** | Error Analysis table presented with at least ten tasks analysed with multiple error modes and detailed design/procedural recommendations, correct headings and PHEA codes. | Error Analysis table presented with five-ten tasks analysed with multiple error modes and design/procedural recommendations, correct headings and PHEA codes. | Error Analysis table presented with at least five tasks analysed, incorrect headings and PHEA codes. | Error Analysis table presented with only a few tasks analysed and incorrect headings and/or missing PHEA codes/ solutions, none user errors included. | Missing Error Analysis or incorrect table format. Non-user errors included. | | **(4) Prototype Design sketches and Functional prototype screen shots  (20 marks)** | Detailed screen designs which are numbered to relate to the HTA and Error Analysis recommendations **and all features** are annotated with suggestions from the design research (1). High quality release candidate prototype presented which accurately matches the HTA and proposed design. Includes error trapping and functions as if the real system ready for publishing. | Detailed screen designs which are numbered to relate to the HTA and Error Analysis recommendations and are annotated with suggestions from the design research (1). Excellent application presented which models the major features of the system requirements and relates to the proposed design. Includes some error handling and considered a good first prototype system. | Some screen designs which are numbered to relate to the HTA and Error Analysis.  Good application presented which models the major features of the system requirements and relates to the proposed design. Minimal viable prototype. | A few screen designs which partially relate to the HTA diagram, Error Analysis or design research (1).  Basic application presented which models the major features of the system requirements – relates poorly to the proposed design. | Missing screen designs or designs which do not relate to the HTA diagram, Error Analysis or design research (1).  No functional prototype presented or non-functional project attempt. | | **(5) User testing**  **(20 marks)** | Test plan presented, user testing with 10 users, testing described, conclusions drawn with recommendations for modification. | User testing with 10 users, testing described, conclusions drawn. | User testing with at least 5 users, testing described. | Anecdotal or basic user testing with a limited population. | Little or no user testing. | | **Total 100 marks** |  | | | | | |

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| University Performance Descriptors  **University Performance Descriptors**  **Extremely poor (0-9).**  Totally inadequate demonstration of required knowledge. Not able to apply the practical and analytical skills from their programmes. No appropriate design methodology. No demonstration of analysis evaluation or synthesis. No evidence of the ability to self-manage a significant piece of work and critical self-evaluation of the process. Little academic value; presentation is extremely poor; work has no structure or clarity; extremely poor use of language; no references; no attempt to provide evidence of sources used**.**  **Very Poor (10-19).**  Virtually no relevant knowledge demonstrated. Fails to adequately apply the practical and analytical skills from their programme. Very poor use of design methodology. No meaningful analysis or evaluation or synthesis. Unable to self-manage a significant piece of work and to identify appropriate issues for critical self-evaluation of the process for reflection. Academic arguments presented are inappropriate or very poorly linked; presentation is very poor; work has little discernible structure or clarity; very poor use of language; lack of ability to source adequate material; very poor referencing.  **Poor (20-29).**  Inconsistent or inaccurate knowledge.Limited and inappropriate and inaccurate application of the practical and analytical skills from their programme. Poor use of methodology. Descriptive, occasional attempts to analysis or evaluate material but lacks critical approach to evaluation or synthesis. Identifies issues for reflection but lacks evidence of reflective processes. Some but inconsistent ability to self-manage a significant piece of work or critical self-evaluation of the process. Confusion or weakness in academic argument; presentation is poor; work is disorganised and lacks clarity; poor use of language; poor use of reference material; inappropriate or out dated sources with numerous referencing errors.  **Unsatisfactory (30-39).**  Limited evidence of knowledge. Inappropriate application of the practical and analytical skills from their programme. Unsatisfactory design methodology. Mainly descriptive evidence of analysis, inconsistent critical approach, little evaluation or synthesis. Follows processes of reflection but fails to demonstrate insight; lacks coherence in the self-management of a significant piece of work. Presentation is unsatisfactory; work is limited in terms of structure, coherence or clarity; limitations in academic style; unsatisfactory referencing with errors; limited ability to support content with relevant sources.  **Adequate (40-49).**  Basic knowledge with occasional inaccuracies. Appropriate yet basic application of the practical and analytical skills from their programme. Superficial depth or limited breadth, but an overall adequate identification of design methodology. Critical analysis evident, with some evaluation and synthesis, although limited evidence of reflection. Some evidence of an ability to self-manage a significant piece of work and critical self-evaluation of the process. Some appropriate academic argument although not well applied and lacking in clarity; presentation of work is adequate in terms of structure, coherence, clarity and academic style; some inconsistencies; some grammar and syntax errors which detract from the content; narrow range of sources; referencing in presented work is adequate with some inconsistencies or inaccuracies; over utilises secondary sources; references used are inappropriate in terms of currency.  **Fair (50-59).**  Mostly accurate knowledge with satisfactory depth and breadth of knowledge. Solid application of the practical and analytical skills from their programme Fair use of design methodology. Sound critical analysis and evaluation or synthesis. Demonstrates basic ability of synthesise information in order to formulate appropriate questions and conclusions; reflective process is utilised, with insight demonstrating planning for future practice; shows the ability to self-manage a significant piece of work and critical self-evaluation of the process. Relevant academic argument; presentation of work is fair in terms of structure coherence, clarity and academic style; some inconsistencies in grammar and syntax; fair range of sources identified with appropriate referencing and few inaccuracies; appropriate use of primary and secondary sources.  **Good (60-69).**  Consistently relevant accurate knowledge with good depth and breadth. Clear and relevant application of the practical and analytical skills from their programme. Good use of design methodology. Clear, in depth critical analysis, evaluation and academic argument with synthesis of different ideas and perspectives. Utilises reflection to develop self and practice; aware of the influence of varied perspectives and time frames; demonstrates an ability to self-manage a significant piece of work and critical self-evaluation of the process. Presentation of work is well organised with good use of language to express ideas or argument; very few inconsistencies in grammar and syntax good; good range of sources; well referenced with very few inaccuracies; good use of primary and secondary sources.    **Very Good (70-79).**  Comprehensive knowledge demonstrating very good depth and breadth. Clear insight into links between the practical and analytical skills from their programme. Strong use of design methodology. Very good analysis and synthesis of material with evidence of critical and independent thought. Demonstrates ability to transfer knowledge between different contexts appropriately; balanced and mature approach to reflection used to enhance practice and performance; clear ability to self-manage a significant piece of work and critical self-evaluation of the process. Presentation is of a very good standard, demonstrating a scholarly style. Very good grammar and syntax. Clear evidence of referencing to a wide range of primary and secondary sources which are used effectively in supporting the work.  **Excellent (80-89).**  Excellent depth of knowledge in a variety of contexts. Coherent and systematic application of the practical and analytical skills from their programme. Excellent use of design methodology. Excellent critical analysis and synthesis. Integrates the complexity of a range of knowledge and excellent understanding of its relevance; confident in their ability to self-manage a significant piece of work and critical self-evaluation of the process Arguments handled skilfully with imaginative interpretation of material; presentation is excellent, well-structured and logical; demonstrates a scholarly style; excellent grammar and syntax.  **Outstanding (90-100).**  Outstanding knowledge. Exceptional application of the practical and analytical skills from their programme. Excellent professional execution of design methodology. Outstanding critical analysis and synthesis. Excels in self-managing a significant piece of work and critical self-evaluation of the process show an aptitude to formulate new questions, ideas or challenges. Incorporates evidence of original thinking; presentation is outstanding demonstrating a fluent academic style.  In Year Retrieval Scheme  Your assessment is eligible for in year retrieval. |
| Reassessment  If you fail your assessment, and are eligible for reassessment, you will need to resubmit on or before the resit deadline in August. For students with accepted personal mitigating circumstances, this will be your replacement assessment attempt.  Reassessment details will be announced on Blackboard after June when the normal teaching period ends. |

Sample back end data:

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| List of staff names: | Year groups | Form IDs | Sample student names |
| Dr Peria Fearne Ms T Gibb Mr V Zotto Ms A Dobble Mr H Carette Ms B McGreal Dr M Spridgeon Mr A Hallbord Dr C Bermingham Ms R Krienke Ms G M'Chirrie Ms C Waiting Ms M Bisley Dr M Sorbie Mr Y Gude Mr R Kenyam Ms W Ivanilov Ms D Wildber Dr J O'Dowgaine Mr M Levett Ms L Grzelczak Rev P Bessey Mr H Nash Ms P Hull Mr O John Mr L Greater Mr U Slabor Ms W Right | Year 7 | TG AD MS AH | Kassi Langthorne Margie Royan Ramsay Arnholdt Sheilah Restieaux Catlaina Poyntz Meredith Franseco Imogene Mirams Cindi Driffe Enrica Gudyer Shari Aldcorne Hobard Endrighi Emilio Huygens Hermie Harler Haleigh Lince Dorine Rosie Rosemarie Thonason Sven Logie Janis Pavett Debbi Trass Giff Dudney Stern Bertrand Hamnet Ridde Gian Lefeaver Flem felip Rianon Brodie Derby Grzelak Muhammad Gartshore Ivar McCarrick Matthaeus McPeice Bat Windas Suzanne Dodman Bruce Mitroshinov Gregg Moorrud Reeva Baiden Kippy Gyse Morgen Concklin Gillan Stanyon |
| Year 8 | CB RK CW MB |
| Year 9 | YG RK WI JOD |
| Year 10 | ML LG PB HN |
| Year 11 | PH OJ US WR |