# **Solent University Unit Descriptor**

## **Unit Code: COM520** **Unit title: Human Computer Interaction**

### **Why is this unit important?**

The interface between humans and computers requires a great deal of foresight and thought into the design, implementation and intended use. Effective application of Human Computer Interaction (HCI) principles is essential.

As technology is continually changing the way that we interact with the outside world, this has dramatically changed recently with new emerging interactions such as vocal and VR interaction, which, in turn, has changed the way how Human Computer Interaction should be studied and reviewed. This unit draws upon a wide range of principles in providing a basis for the design of systems which are efficient and easy to use.

### **What you will learn on the unit**

HCI involves the study of how humans interact with computers and how to design computer systems that are effective for people to use. These interfaces must be appropriate for the intended users and you will study the demographic issues of interface design as well as ensuring that accessibility requirements are appropriately considered.

Consideration of the social and ethical aspects of computer system interaction is crucial as well as more contemporary aspects of human machine (robot) interaction.

Cognitive science approaches are also explored to understand the behavioural aspects of HCI. The focus on interface design as well as the interaction design will emphasise the user experience aspect in addition to the evaluation and interplay of what people do with computer-based systems and what the systems do in return. You will be able to engineer and critically appraise traditional, web and mobile-based interfaces in addition to specifying how interaction could be improved.

Thus, you will be equipped with a range of skills that will enable you to work in a multidisciplinary environment such that they are able to fit together technological possibilities with human needs and capabilities.

### **How you will learn**

While presentations will be used to cover the essential topics and concepts the seminar programme will provide an opportunity for you to undertake investigation and discussion of more specialised topics. Theoretical work carried out in the presentations and seminars will be reinforced with interspersed practical sessions. Formative feedback will be provided during these and the analysis, design, build and evaluation exercises.

**How much time the unit requires**

This is a 20 credit unit, and therefore you are expected to study for 200 hours.  This total learning time is made up of contact time, directed learning tasks, independent learning and assessment activity. Your tutor will offer you guidance on how you should best manage your study time on this unit.

### **How you will be assessed**

#### **Tasks which help you to learn and prepares you for summative tasks (Formative):**

Several activities exploring the domain of Human computer interaction will be carried out in the classroom. The activities will collectively help you to apply HCI principles to multiple contexts and devices.

#### **Tasks which count towards your degree (Summative):**

Several weekly activities aiming to complete the summative assessment will be carried out. The activities will help complete some of the assessment tasks, such as how to design qualitative and quantitative data collection methods. You will receive enough feedback via multiple formative feedback sessions. You will have to present the findings of your user research analysis for feedback.

*All tasks carried out in the class will help students produce a design brief that accurately describes business, technical and user requirements. Including user experience artefacts such as personas, user stories, user analysis, scenarios and user journeys.*

When assessment does not go to plan

If you are referred in AE1, you will be required to revise and resubmit the assessment, in the light of tutor feedback.

### **What you will be able to do after the unit**

1. Research and apply appropriate HCI design methodologies for given scenarios to problem-solve real-world design issues.
2. Review software and hardware products in terms of related HCI principles, guidelines and techniques.
3. Discuss and explain psychological and technological principles in the design of an interface for differing demographic users.
4. Design and build interface using current HCI principles and methods.
5. Design interfaces with legal accessibility requirements.
6. Utilise appropriate qualitative and quantitative analytic methods to evaluate applied HCI principles.

### **How this relates to the dimensions of Solent’s Real-world curriculum framework**

|  |  |  |
| --- | --- | --- |
| Dimensions | How you learn | How you are assessed |
| Students are challenged to think in critical, creative and applied ways | You will be analysing multiple business context to understand the impact of context on User experience. This will include you interviewing clients and discuss HCI requirements. | This is a group project. You will be formatively evaluated by the client. A predefined evaluation form will be supplied and shared with students. |
| Students are inspired to do research through inquiry, curiosity and problem-solving | You will have to complete a reading list every week and answer case study questions. | This is not part of the summative assessment, students, however, will be encouraged to do this in group context. |
| Students experience an intellectually stimulating curriculum which inspires them to learn for life | The communication and documentation process of all artefacts as a group will improve interpersonal and employability skills. | You will create your own design brief to showcase of their HCI artefacts and the context investigated. |
| Students face outward to the community, industry and the global environment | You have to select a business case study for the assessment and design brief . This will improve student’s engagement with local businesses. | Clear and concise insights and strategies identified appropriate to the business case study selected by students. |
| Students learn from authentic, engaging and programmatic assessment | You have to select a business case study for the assessment and design a User Research strategy for. This will improve student’s engagement with local businesses. | Guest lecturers will be invited and you will can network and ask questions to experts in HCI. |

### Summative assessment details

|  |  |  |
| --- | --- | --- |
| AE1 | Weighting: | 100% |
|  | Assessment type: | Design brief |
|  | Aggregation: | N/A |
|  | Length/duration: | 3000 words |
|  | Online submission: | Yes |
|  | Grade marking: | Yes |
|  | Anonymous marking: | No |

### Unit Author:

|  |  |  |  |
| --- | --- | --- | --- |
| Unit Title: Human Computer Interaction | | | |
| Credit Points: | 20 | Unit Code: | COM520 |
| FHEQ Level: | 6 | School/Service | School of Media arts and Technology |
| Unit Delivery Model: | CD | Max/Min student numbers | NA |
| Unit Leader: | Dr.Mohammed Al-Husban | | |
| HECOS code | 100736 | | |

### Unit change history:

|  |  |  |  |
| --- | --- | --- | --- |
| Unit Approved/Year Implemented/Code | July 2019 | 2020/21 | COM520 |
| Unit modified/Year Implemented/Code |  |  |  |
| Add extra rows as required |  |  |  |