

# 1. General Course Information

## 1.1 Course Details

| Course Code:        | 1805ICT                           |
|---------------------|-----------------------------------|
| Course Name:        | Human Computer Interaction        |
| Trimester:          | Trimester 2, 2020                 |
| Program:            | Diploma of Information Technology |
| Credit Points:      | 10                                |
| Course Coordinator: | Dr Rob Baltrusch                  |
| Document modified:  | 29/05/2020                        |

# Course Description

Human Computer Interaction (HCI), is a first-year course which provides an introduction to the principles and practices of effective Human Computer Interaction. We will explore the origins of HCI and the theories and frameworks that form the fundamentals of the discipline. We will then look at the practical tools and techniques that you can use to develop technology that embodies best practice in HCI - a positive user experience, and a high level of usability within your technology. You will have the opportunity to apply HCI practices to a 'real world' problem and develop a design brief for a client. You will also learn how to apply these practices to different problem situations and various technology contexts, including emerging technologies.

A key component to the discipline of Information Technology is the understanding and the involvement of the user in the development of IT applications and systems. IT graduates must develop a mind-set that recognizes the importance of users and organisational contexts and employ user-centred methodologies in the development, evaluation, and deployment of IT applications and systems. This requires graduates to develop knowledge of HCI including user and task analysis, human factors, ergonomics, application domains, user interface development tools and Graphical User Interface (GUI) frameworks, accessibility standards, and cognitive psychology.

# Assumed Knowledge

# 1.2 Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

| Name             | Email                              |
|------------------|------------------------------------|
| Dr Rob Baltrusch | rob.baltrusch@grifftihcollege.edu. |
|                  | au                                 |

## 1.3 Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times. Times that your lecturer/tutor will be available for consultation will be available on the Moodle Course Site.

### 1.4 Timetable

Your timetable is available on the Griffith College Portal at Class Timetable in Student and Services.

# 1.5 Technical Specifications

All students must have access to a computer or suitable mobile device.

# 2. Aims, Outcomes & Generic Skills

# 2.1 Course Aims

The extent to which people will interact with a digital system depends not only on the usefulness of the system but also on experience of the person's interaction with the system. Now more than ever before people are interacting with digital systems for reasons ranging from entertainment to 'mission critical' activities. This course thus aims to equip students with the foundational theoretical knowledge, practical skills and experiences of process required to create and evaluate human interaction with computing systems.



# 2.2 Learning Outcomes

After successfully completing this course you should be able to:

- 1 Understand the relationship between HCI models, theories, and frameworks, and their application to digital interaction, interfaces and products;
- 2 Understand the differences in designing and developing technology for different application environments and digital media, including desktop and mobile, and emerging technologies such as wearable, and virtual reality systems.
- **3** Evaluate usability of existing technology applications by using the appropriate performance and preference metrics; Analyse usability testing results and recommend changes.
- 4 Apply HCI models, theories and processes to design an interactive application for an industry context.

# 2.3 Generic skills and capabilities

For further details on the Generic Skills please refer to the Graduate Generic Skills and Capabilities policy.

Griffith College aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

| Generic Skills and Capabilities  |              |          | Practised   | Assessed |
|--|--------------|----------|-------------|----------|
| Acquisition of discipline knowledge and skills with critical judgement | <b>&amp;</b> | ✓        | ✓           | ✓        |
| Communication and collaboration  | ä            | √        | <b>√</b>    | <b>√</b> |
| Self-directed and active learning                                      |              |          | <b>&gt;</b> |          |
| Creative and future thinking   | $\bigcirc$   | <b>√</b> | <b>√</b>    |          |
| Social responsibility and ethical awareness                            | 47           |          | <b>√</b>    |          |
| Cultural competence and awareness in a culturally diverse environment  | ****         | <b>√</b> | ✓           |          |



# 3. Learning Resources

# 3.1 Required Learning Resources

There is no prescribed text book for this course

# 3.2 Recommended Learning Resources

- I. S. MacKenzie, "Human-Computer Interaction: An Empirical Research Perspective", Elsevier Science, 2012.
- J. M. Carroll, "HCI Models, Theories, and Frameworks: Toward a Multidisciplinary Science", Elsevier Science, 2003.

# 3.3 College Support Services and Learning Resources

The College provides many facilities and support services to assist students in their studies. Links to information about College support resources that are available to students are included below for easy reference.

<u>Digital Library</u> – Databases to which Griffith College students have access to through the Griffith Library Databases.

MyStudy - there is a dedicated website for this course via MyStudy on the Griffith College Portal.

<u>Academic Integrity Tutorial</u> - this tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of breaches of academic integrity, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

Services and Support provides a range of services to support students throughout their studies including personal support such as Counselling; Academic support; and Welfare support.

Jobs and Employment in the <u>Student Hub</u> can assist students with career direction, resume and interview preparation, job search tips, and more.

<u>IT Support</u> provides details of accessing support, information on s numbers and internet access and computer lab rules.

# 3.4 Other Learning Information

#### **Attendance**

You are expected to attend all lectures and tutorials and to actively engage in learning during these sessions. You are expected to bring all necessary learning resources to class such as the required textbook and /or Workbook. In addition, you may BYOD (bring your own device) to class such as a laptop or tablet. This is not a requirement as computer lab facilities are available on campus, however, the use of such devices in the classroom is encouraged with appropriate and considerate use principles being a priority.

### **Preparation and Participation in Class**

In order to enhance learning, prepare before lectures and tutorials. Read the relevant section of your text book before a lecture, and for a tutorial read both the textbook and the relevant lecture notes. If you have been given tutorial exercises, make sure you complete them. Active participation in lectures and tutorials will improve your learning. Ask questions when something is unclear or when you want to bring some issue to your lecturer or tutor's attention; respond to questions to test your knowledge and engage in discussion to help yourself and others learn.

## **Consultation Sessions**

Teachers offer extra time each week to assist students outside the classroom. This is known as 'consultation time.' You may seek assistance from your teacher on email or in person according to how the teacher has explained this to the class. Attendance during consultation time is optional but you are encouraged to use this extra help to improve your learning outcomes.

### **Course Materials**

Lecture notes will be made available to you in MyStudy on the Griffith College Portal and you are advised to either print these out and bring them to each class so that extra notes can be added or BYOD (bring your own device) and add extra notes digitally.

# Self-Directed Learning

You will be expected to learn independently. This means you must organise and learn the course content even when you are not specifically asked to do so by your lecturer or tutor. This involves revising the weekly course material. It also means you will need to find additional information for some assessment items beyond that given to you in textbooks and lecture notes, and to construct your own response to a question or topic. All of this requires careful planning of your time. Expect to spend, on average, at least 10 hours per week including class

time for each of your courses.

## **Program Progression**

You are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 [please see Griffith College Policy Library - Program Progression Policy - for more information].

### **Teacher and course Evaluation**

Your feedback is respected and valued by your lecturers and tutors. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your lecturer and tutor or by completing course and lecturer evaluations via Griffith College's evaluation tool whenever these are available.



4. Learning content, learning activities and learning experiences

# 4.1 Modules for learning and weekly learning content, learning activities and learning experience

|   | Learning Content   | Learning activities                 | Learning experiences   | Evidence of learning | Learning outcome |  |
|---|--|-------------------------------------|--|----------------------|------------------|--|
|   | Module 1 HCI mod   | dels, theories, and fr              | ameworks   |                      |                  |  |
| 1 | Introduction   | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul>         | Weekly activities    | 1                |  |
| 2 | Human factors  | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul>         | Weekly activities    | 1                |  |
| 3 | Theoretical frameworks   | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online<br/>workshop</li> <li>Discussion<br/>forum</li> </ul> | Weekly activities    | 1                |  |
|   | <b>Module 2</b> Designing and developing technology for different application environments |                                     |  |                      |                  |  |
| 4 | Usability  | Weekly<br>lesson plan<br>activities | <ul><li>Online tutorial</li><li>Online workshop</li><li>Discussion forum</li></ul>             | Weekly activities    | 2                |  |

| 5  | Usability<br>guidelines   | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul> | Weekly activities    | 2          |
|----|---------------------------|-------------------------------------|--|----------------------|------------|
| 6  | Design tools              | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul> | Weekly activities    | 2          |
| 7  | Design process            | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul> | Weekly activities    | 2          |
|    | <b>Module 3</b> Evaluatin | ng designs                          |  |                      |            |
| 8  | Usability<br>evaluation   | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul> | Weekly activities    | 3          |
| 9  | Accessibility             | Weekly<br>lesson plan<br>activities | <ul> <li>Online tutorial</li> <li>Online workshop</li> <li>Discussion forum</li> </ul> | Weekly activities    | 3          |
|    | <b>Module 4</b> Applying  | HCI in other domai                  | ins and industry conte   | xts                  |            |
| 10 | Domains                   | Weekly lesson<br>plan activities    | <ul><li>Online tutorial</li><li>Online workshop</li><li>Discussion forum</li></ul>     | Weekly<br>activities | 4          |
| 11 | Emerging<br>technology    | Weekly lesson<br>plan activities    | <ul><li>Online tutorial</li><li>Online workshop</li><li>Discussion forum</li></ul>     | Weekly<br>activities | 4          |
| 12 | Course review             | Weekly lesson plan activities       | Topic review   | Weekly activities    | 1, 2, 3, 4 |



5. Evidence of learning (Assessment plan)

5.1 Evidence of learning summary

|   | Evidence of learning   | Weighting | Learning outcome | Due Date    |
|---|--|-----------|------------------|-------------|
| 1 | Portfolio - evidence<br>Design Portfolio<br>Stages 1 and 2<br>(25% each) | 50%       | 1, 2, 3, 4       | Weeks 6, 11 |
| 2 | Assignment -<br>Written<br>Assignment<br>Design Work                     | 30%       | 3, 4             | Weeks 6, 11 |
| 3 | Assignment -<br>practical/laboratory/<br>clinical<br>Design Challenge    | 20%       | 1, 2, 3, 4       | Week 12     |

# 5.2 Evidence of learning task detail

### Assessment 1:

**Title:** Design Portfolio **Type:** Portfolio - evidence

Learning Outcomes Assessed: 1, 2, 3, 4

Due Date: Weeks 6 (Stage 1 25%) and 11 (Stage 2 25%)

Weight: 50% Marked out of: 100

### **Task Description:**

This trimester you will need to develop an ePortfolio of your work in Human Computer Interaction. The Design Portfolio is worth 50% of your total mark. Your Design Portfolio will include electronic evidence of your work and your professional progress. It will show your application of Human Computer Interaction concepts through the inclusion of your design work for a real world project and your personal reflections on your own progress. Your Design Portfolio will showcase your skills, not just to the teaching team, but also to potential employers. This assessment item is submitted in two parts: Stage 1 and Stage 2.

## Criteria & Marking:

Portfolio evidence will consist of progressive development of a design brief addressing a project scenario. Marks will be allocated for accuracy, level of detail, and for the portfolio being up-to-date

Your submission of your ePortfolio is weighted as follows:

- Week 6 25% (Stage 1 formal online submission)
- Week 11 25% (Stage 2 formal online submission)

You will receive feedback on your Design Portfolio after your first submission, and you will need to revise based on this feedback.

Detailed marking criteria for your Design Portfolio will be provided through the Course Site.

## This assessment item:

- is a school based activity
- is an individual activity
- includes a self-assessment activity
- does not have a resubmission provision

### Assessment 2:

Title: Design Work

**Type:** Assignment - Written Assignment **Learning Outcomes Assessed:** 3, 4

Due Date: Weeks 5 - 11

Weight: 30% Marked out of: 100

### **Task Description:**

This trimester you will work to develop a Design Brief addressing a particular design scenario from an industry client. You will present most of your work individually through your ePortfolio, supported by weekly exercises conducted in teams within your weekly workshop. Your weekly team Design Work will document your progress with supporting exercises analysing the design scenario and the people who will need to interact with your design, and the development of the designs themselves. In the future, this will help you demonstrate your HCI understanding and skills, not just to the teaching team, but also to potential employers.

### Criteria & Marking:

Full marking criteria and guides are provided on the course site.

Your finished Design Work will be submitted through the course site each week, for 30% of your mark.

Your finished Design Work will be submitted through the course site in each week, for 30% of your mark.

Submission: Submitted online through the course site

### This assessment item:

- is a school based activity
- is a group activity
- includes a self-assessment activity
- does not have a resubmission provision

# Assessment 3:

Title: Design Challenge

**Type:** Exam - practical/laboratory/clinical **Learning Outcomes Assessed:** 1, 2, 3, 4

Due Date: Week 12 Weight: 20% Marked out of: 100 Duration: 120 minutes Format: Open Book Task Description:

This task is a team exercise that requires you to apply knowledge from your work over the semester to address a design challenge. The design challenge will take place in the workshop during week 12.

## Criteria & Marking:

Full criteria will be provided on the course.

The Design challenge is a workshop exercise. You will be provided with an industry scenario, and you will need to apply the material covered throughout the semester to address the scenario and produce a design for a piece of technology that would solve the scenario.

The challenge will be conducted in teams.

### This assessment item:

- is a school based activity
- is an individual activity

- does not include a self assessment activity
- does not have a re-attempt provision
- is a proctored examination

## 5.3 Late Submission

An assessment item submitted after the due date, without an approved extension from the Course Coordinator, will be penalised. The standard penalty is the reduction of the mark allocated to the assessment item by 5% of the maximum mark applicable for the assessment item, for each working day or part working day that the item is late. Assessment items submitted more than five working days after the due date are awarded zero marks.

Please refer to the Griffith College website - Policy Library > Assessment Policy for guidelines and penalties for late submission.

## 5.4 Other Assessment Information

### **Retention of Originals**

You must be able to produce a copy of all work submitted if so requested. Copies should be retained until after the release of final results for the course.

### Requests for extension

To apply for an extension of time for an assignment, you must submit an <u>Application for Extension of Assignment</u> form to your teacher at least 24 hours before the date the assignment is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. <u>Griffith College Student Medical Certificate</u>]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

# **Return of Assessment Items**

- Marks awarded for in-trimester assessment items, except those being moderated externally with Griffith University, will be available on the Student Portal within fourteen [14] days of the due date. This does not apply to the final assessment item in this course (marks for this item will be provided with the final course result).
- Students will be advised of their final grade through the Student Portal. Students can review their exam
  papers after student grades have been published (see relevant Griffith College Fact Sheet for allocated
  times at Support> Factsheets). Review of exam papers will not be permitted after the final date to enrol.
- 3. Marks for **all** assessment items including the final exam (if applicable) will be recorded in the Moodle Course Site and made available to students through the Moodle Course Site.

The sum of your marks overall assessment items in this course does not necessarily imply your final grade for the course. Standard grade cut off scores can be varied for particular courses, so you need to wait for the official release of grades to be sure of your grade for this course.

# 6. Policies & Guidelines

Griffith College assessment-related policies can be found in the <u>Griffith College Policy Library</u> which include the following policies:

Assessment Policy, Special Consideration, Deferred Assessment, Alternate Exam Sitting, Medical Certificates, Academic Integrity, Finalisation of Results, Review of Marks, Moderation of Assessment, Turn-it-in Software Use. These policies can be accessed using the 'Document Search' feature within the <u>Policy Library</u>

**Academic Integrity** Griffith College is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual's and the College's reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, premeditated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at Griffith College, your lecturers, tutors and academic advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

In the case of an allegation of a breach of academic integrity being made against a student he or she may request the guidance and support of a Griffith College Student Learning Advisor or Student Counsellor.

Please ensure that you are familiar with the Griffith College Academic Integrity Policy; this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Griffith College website - Policy Library > Academic Integrity Policy

## Reasonable Adjustments for Assessment - The Disability Services policy

The Disability Services policy (accessed using the Document Search' feature with the <u>Policy Library</u>) outlines the principles and processes that guide the College in making reasonable adjustments to assessment for students with disabilities while maintaining academic robustness of its programs.

## **Risk Assessment Statement**

There are no out of the ordinary risks associated with this course.

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